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Integrating Social and Behavior Change in Climate Change Adaptation:

An Introductory Guide

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Cover Photo: Georgina Smith / CIAT

[OVERVIEW] Integrating Social and Behavior Change in Climate Change Adaptation

HOW TO USE THIS GUIDE

This guide is designed to serve as an introductory resource. The primary audience is USAID staff interested in integrating Social and Behavior Change (SBC) into climate change adaptation and resilience programming. The guide will also be useful to USAID implementing partners and development practitioners with similar objectives. The guide is divided into three interrelated modules that introduce key SBC concepts and provide direction for developing SBC initiatives. The modules are structured as follows:

MODULE 1: Understanding Behavioral Determinants of Climate Change Adaptation

Module 1 introduces a key concept of SBC – behavioral determinants – to help better consider how behaviors are entry points for affecting climate change adaptation. The module also provides guidance on how to use behavioral determinants to identify relevant behaviors to target in SBC programming.

MODULE 2: Defining SBC Objectives to Encourage Climate Change Adaptation

Module 2 presents an overview of how to use SBC as a tool to achieve climate change adaptation, and how USAID, and others, can reach potential audiences through SBC interventions.

MODULE 3: Planning and Implementing SBC for Climate Change Adaptation

Module 3 presents key considerations for developing an SBC strategy and SBC implementation plan. Each module include reference to a framework for SBC developed by psychologist Jonathan Haidt and called the elephant, the rider, and the path. This framework is further described in a textbox at the end of the overview section of the guide.

INTRODUCTION

Climate variability and change will affect the health and livelihoods of most populations in the coming years, putting the lives and well-being of millions of people at increased risk. Rising temperatures threaten many crop species, livestock health, and agricultural systems. Rainfed agriculture is particularly vulnerable to rising temperatures, a potential increase in extreme weather events, and changes in precipitation patterns. Sea level rise, more intense storm surge, and ocean warming and acidification all have potentially devastating impacts on human life and natural, social, and physical assets in coastal areas. Public health is directly impacted by threats such as heat waves, and indirectly impacted by changes in the distribution and transmission of diseases and heightened food insecurity. The poorest countries and communities are often the most vulnerable to these impacts because they lack the ability to prepare for and recover from both long-term changes, such as rising temperatures and sea level, and short-term shocks, such as more intense storms and floods. Significant adverse social, economic, and environmental impacts of climate change will arise as climate risks challenge traditional livelihoods, exacerbate conflicts, and intensify humanitarian crises.

Most climate change adaptation and risk reduction measures require that humans modify existing behaviors or adopt new ones related to health, agriculture, natural resource management, infrastructure, and settlement patterns. SBC, which incorporates knowledge from across disciplines to change

Process for using Social and Behavior Change (SBC) in climate change adaptation:

1. **Understand** the problem
   Observe and assess current climate vulnerability of targeted group, and behaviors that may contribute to vulnerability.
2. **Define** behaviors to change
   Determine desired behaviors to change based on observed climate vulnerabilities and target audiences for SBC interventions.
3. **Match** approaches to modify behavior with climate vulnerability and adaptation challenges
   Identify drivers of, called determinants, of targeted behaviors for SBC interventions.
4. **Develop** an SBC strategy
   Design interventions and develop relevant messages and materials.
5. **Pilot** SBC interventions
   Implement interventions and assess against the SBC strategy.
6. **Evaluate** SBC interventions
   Measure changes in targeted adaptation behaviors and determinants of those behaviors.

behaviors to address specific challenges, is a critical yet underutilized approach that can help individuals and communities cope with the current, and near- and long-term changes in climate.

The purpose of this guide is to strengthen USAID's understanding of SBC concepts and how to put them into practice to address climate change risks through integrated programming. More broadly, this guide can be used by USAID's implementing partners and development practitioners interested in learning more about the potential application of SBC in climate change adaptation efforts, and likewise using this knowledge in programming. The guide shares key resources for expanding knowledge of SBC and considerations for its use throughout the program cycle, from project design to monitoring and evaluation.

WHAT IS SBC AND HOW CAN IT BE USED FOR CLIMATE CHANGE ADAPTATION?

Human behavior is complex — it often takes a combination of approaches to cause an individual to test, adopt, and sustain behaviors. SBC is the application of theory-based approaches to identify opportunities to change behaviors at the individual, community, and/or societal levels. SBC interventions can employ a range of strategies (e.g., interpersonal communication, advocacy, social mobilization, structural or environmental interventions) at different levels (e.g., individual, community) to empower, motivate, and strengthen the capability of target groups to improve their livelihoods, adapt to climate variability and change, and increase overall resilience. It is important to stress that while communications are an integral part of SBC, a successful SBC strategy must include other elements, including education and training, and access to finance and other resources that safeguard livelihood security, thereby making changes in behavior practical for individuals, households and communities.

KEY RESOURCES: SBC TOOLKITS AND GUIDES

- Food Security and Nutrition Network Designing for Behavior Change Framework
- Health Communication Capacity Collaborative (HC3) Integrated SBCC Programs Implementation Kit
- The Health COMpass and Springboard
- Knowledge for Health (K4Health) Social and Behavior Change Technical Reference Materials
- USAID Behavioral Integration Guidance

While climate adaptation can bring substantial economic benefits and well-being to people, increasing the adoption of adaptation measures is often challenging, slow to show results, and ultimately having modest success. In sectors where SBC has been applied extensively in international development projects, including health and nutrition, and biodiversity conservation, it has demonstrated that behavior change can occur quickly and be effective (CORE Group SBC Working Group 2010). When deployed in conjunction with approaches used to inform climate resilience-building efforts, such as climate change vulnerability assessments, SBC approaches can strengthen and sustain adaptation interventions.

WHAT IS UNIQUE ABOUT SBC FOR CLIMATE CHANGE ADAPTATION?

The impacts of climate change are difficult to predict and vary greatly by geography and how far into the future projections go. Sea level rise, changes in precipitation patterns, increased temperatures, and potential increase in intensity and frequency of extreme weather events will impact local communities and countries differently depending on their geographic characteristics and their ability to prepare for and recover from climate events.

The use of SBC for climate change adaptation is new. To apply SBC to climate change adaptation efforts, USAID staff should consider the following factors:

- **Seeing is believing:** When people individually or collectively consider climate science and projections of future change impacts, there can be "psychological distance" related to climate information that can make it seem unreal, intangible, and therefore not urgent. The uncertainty and perceived intangibility regarding when, where, and how the impacts of increasing climate variability and change might manifest and the lack of social norms governing how to address climate change challenge people's natural way of processing information (Jones et al., 2014). Past experience is often a stronger driver of risk perception than objective, analytical information about future projections. Rewards associated with adaptation behavior likewise may be discounted because they will accrue in the future. Unfortunately, people's perceived value of a reward (or avoidance of a loss) decreases when the reward or loss it would occur in the future or is uncertain to occur at all (Weber, 2010). Therefore, when climate change is viewed as a distant, future threat, the incentive for action that might a) reduce the threat and b) reward the adaptive action decreases. This can be combatted by giving people knowledge of direct, adverse impacts in nearby communities to which they can relate — even when those impacts are infrequent — as that can motivate people to adopt changes they perceive to be relevant to their own circumstances.
- **New knowledge is needed:** Given increasing variability in weather and climate conditions, individual and collective frames of reference for temperature and rainfall patterns are less useful than in the past. Long-held traditional local knowledge, while important, is not sufficient for accurately determining weather and climate trends. Rural communities that have strong ties to the land and its natural resources are experiencing climate variability and change and adjusting their behavior and practices. Their local, anecdotal knowledge combined with improved understanding about the science of climate variability and change, including quantitative historical weather data and local climate projection data, will help communities continue to adjust their behavior to adapt to a changing climate.
- **Must be relatable:** Trust in climate information can be damaged when that information is communicated unclearly or without emphasizing

that it comes with uncertainty. If the risk is not framed as uncertain or is framed as a global concern rather than a specific local risk, climate information may be demotivating and diminish people's belief in their ability to adapt (Frank et al., 2011; Gifford et al., 2011; Kuruppu & Liverman, 2011).

BROADENING OUR VIEW OF WHAT INFLUENCES ADAPTATION

Conventional approaches sometimes assume that providing more and better information to people about the science of climate change will lead to better decisions and behaviors to reduce climate risk. While good scientific data and technical information are important, they are often insufficient for people to take adaptive action. Numerous factors, including values, beliefs, attitudes, preferences, habits, costs and benefits assessments, social norms, policies, and institutions interact to influence a behavior.

Broadening our view of possible facilitating factors (called enablers) and barriers to SBC for climate change adaptation — and identifying them through field-based or formative research that tests our understanding of these enablers and barriers — can be helpful in designing successful programs that support climate change adaptation programming and contribute to its success.

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A simple conceptual framework for SBC:

THE ELEPHANT, THE RIDER, AND THE PATH

Psychologist Jonathan Haidt first coined the analogy of the elephant, the rider, and the path[1]. Each character represents critical aspects of human behavior that affect whether an individual is able and willing to change his or her behavior. The framework posits that within each individual, there is:

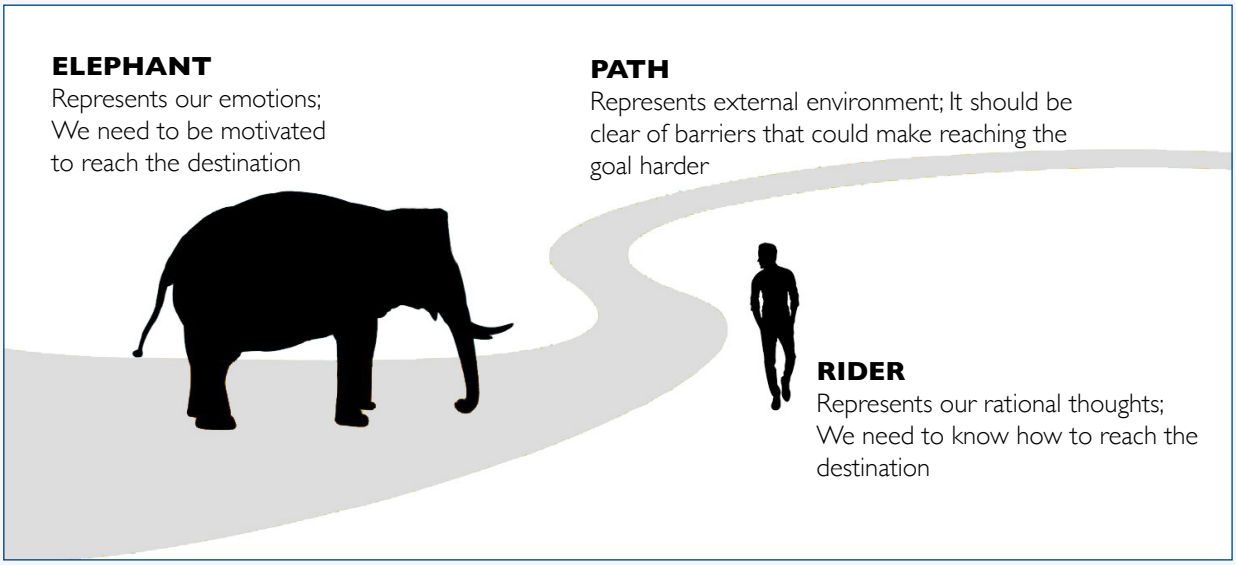
- An ***elephant*** that represents the irrational side triggered by emotions, desires, perceived threats or opportunities; and
- A ***rider*** that represents rational thoughts typically influenced by information and knowledge.

In addition, there is the external environment represented by:

- The ***path*** that can support or prevent the rider and elephant from reaching their destination.

All three aspects are critical to behavior change. SBC is the result of the alignment and coordination among the three factors. This framework demonstrates an evolution in holistic SBC thinking, moving the field beyond information, education, communication (IEC) focused on information provision and learning, behavior change communication (BCC) focused on individual factors, and social and behavioral change communication (SBCC) focused on communication to a discipline that recognizes that importance of each of these techniques, including all of them into an integrated practice.

The elephant, the rider, and the path framework will appear throughout the following modules to help readers think through situations in which SBC interventions may be applied to promote adaptive outcomes.



Source: Adapted from Heath 2010

[1] The elephant, rider, path conceptual framework was popularized by Chip and Dan Heath in the book Switch: How to Change Things When Change is Hard.

[MODULE 1] Understanding Behavioral Determinants of Climate Change Adaptation

KEY TERMS

Formative Research: Formative research uses qualitative and quantitative methods to provide information for researchers to plan intervention programs. For SBC, formative research helps identify relevant behavioral determinants.

Behavioral Determinants: Perceptions, feelings, or beliefs shaped by socioeconomic, political, and cultural factors that can support or prevent the adoption of a specific behavior. Behavioral determinants are specific for each behavior, some common behavioral determinants relevant to influencing climate adaptation behavior include:

- **Perceived risk/severity:** an individual's or community's beliefs about 1) the existence and/or probability and 2) characteristics and/or severity of a given risk. Direct experience is generally more important to an individual's risk perception than secondhand information. Recent personal experience with a risk strongly influences perception of the likelihood and danger of the risk (Clayton et al., 2015; Roco et al., 2015).
- **Perceived self-efficacy:** an individual's belief in his/her own ability to adapt. Individuals with a low estimation of their own ability or capacity to adapt are less likely to engage in adaptation behaviors.
- **Perceived response efficacy:** an individual's belief about the effectiveness of a particular response to reduce a risk or achieve an outcome.

Understanding, anticipating, and preparing for potential impacts of climate variability and change across different sectors are critical for creating a stable and resilient foundation for sustainable development. However, the uptake of actions that enhance adaptation and improve resilience hinges on the ability and willingness of individuals to change how they do things, which are determined by an array of cognitive, socioeconomic, political, and cultural factors. These dynamic factors shape or determine behavior, so recognizing them helps us understand the drivers of behavior, called behavioral determinants. Understanding the relevant behavioral determinants, in turn, allows us to identify the relevant behaviors that should be encouraged (or discouraged) and to develop SBC interventions that lead to desired adaptation behaviors.

WHAT INFLUENCES BEHAVIOR CHANGE?

Multiple factors — often called "determinants" — contribute to the motivation, capability, and opportunity to change behavior. Behaviors may be motivated by predisposing factors (knowledge, beliefs, attitudes, skills, and values), enabling factors (social norms, access to information, distance to services, and government policies), or reinforcing factors (positive or negative effects of adopting a behavior that influence continuing the behavior) (Middlestadt et al., 2003). SBC helps development practitioners understand how these factors interact so that practitioners can design interventions that empower target groups, from individuals to organizations to communities, and create opportunities for these target beneficiaries to practice new or modified behaviors that can improve livelihoods and increase resilience.

WHAT ARE KEY BEHAVIORAL DETERMINANTS OF ADAPTATION?

Using SBC to promote adaptation is not solely focused on adopting new techniques or technologies or discouraging harmful behaviors, but it involves instigating changes in psychological factors, interpersonal relationships, community life, and the broader enabling environment (Somda et al., 2017; Feng et al., 2017; Truelove et al., 2015). A successful SBC strategy focused on climate change adaptation is a three-step process. It should start by 1) identifying the behaviors that need to change to encourage adaptation by individuals, households and communities; followed by 2) identifying the relevant behavioral determinants; and finally 3) identifying the societal dynamics (e.g., psychological factors, cultural factors) from which these behavioral determinants derive. Given the challenges of conveying climate risk (see Overview: Integrating Social and Behavior Change in Climate Change Adaptation), it is important to identify relevant behavioral determinants and understand how they influence the adaptation uptake. This analysis, in turn, informs the design of behavior change strategies and interventions aimed at encouraging behavioral intention, and ultimately, adoption of new behaviors. Behavioral determinants most relevant to a successful SBC strategy include: **perceived risk, perceived social norms, perceived self-efficacy and perceived response efficacy**. These are described in the context of climate change adaptation.

Perceived risk plays an important role in adaptation behavior. People's assessment of risk probability is often subjective and not directly aligned with actual risk probability. Instead,

WHO'S IN CHARGE – THE RIDER OR THE ELEPHANT?

What will Tatiana do in response to the cyclone alert?

Interventions that aim to encourage villagers like Tatiana to move out of harm's way and seek shelter before a cyclone hits require appeals to all three aspects – the rider, the elephant, and the path.

RIDER

Raising awareness of an identified climate risk and providing information about how to manage the risk can strongly influence how and whether the rider feels confident and capable of taking adaptive action.

Tatiana hears on the radio that a cyclone is expected to make landfall within the next 72 hours. The radio host advises listeners to seek shelter because homes may not withstand the strong winds.

PATH

Perceived social norms and sense of identity can prevent or enable an adaptation behavior. These external environmental factors can also deter the rider and elephant from undertaking an adaptation behavior.

If Tatiana seeks shelter now, it will keep her from doing business at her shop for three or four days. Business has already been slow, and she needs the income to provide basic needs and care for her children.

ELEPHANT

Recent experience impacts perception of climate risk and ability (or inability) to confront that risk. Perception of risk and response efficacy often tends to outweigh awareness or knowledge of risk.

Last month when a cyclone warning was issued, the storm's trajectory shifted and did not reach Tatiana's village. This recent experience may lead Tatiana to downplay her own exposure to potential risks associated with the imminent cyclone.

experience with recent and/or severe local impacts of climate variability and change tends to have a greater influence on perceived risk. This is an important consideration for targeting effective ways to convey climate risks: when information is provided by a trusted source (e.g., person, agency, news outlet) and is relevant to people's lives, it can positively influence risk perception and adaptation behavior.

Simply providing information about risk is not enough to prompt action, as such, **perceived self-efficacy, perceived response efficacy, and perceived social norms** are key determinants as well. Individuals need to feel capable of responding to climate variability and change (perceived self-efficacy) and confident that their actions will be effective (perceived response efficacy). In addition, how society may perceive a particular action can strongly influence whether or not someone decides to follow through with it (perceived social norms).

For example, designers of a project promoting household rainwater collection may find that the following determinants are linked with collecting rainwater:

- **Perceived risk:** If heads of households believe that the risk of a drought is low, they may be less likely to install a rainwater collection system.
- **Perceived social norms:** If heads of households believe that people who are important to them (e.g., grandparents, neighbors) think that rainwater catchment systems are a bad idea, they may be less likely to install the system.

However, in a similar project in another country or area of the same country, we may find that different determinants are linked with collecting rainwater:

- **Perceived self-efficacy:** If heads of households feel confident in their ability to properly set up and maintain the rainwater collection system, they may be more likely to install one.
- **Perceived response efficacy:** If heads of households see neighbors collecting rainwater to increase household water supply and reduce time spent fetching water, they may be more likely to install a similar system.

Because behavioral determinants can be highly context-specific, designing a successful SBC intervention requires formative research to identify behavioral determinants and conduct an accurate analysis of those behavioral determinants.

CONDUCTING FORMATIVE RESEARCH

In most cases, a literature review will not provide a complete picture of a community's dynamics. A deeper analysis of the situation, and of the priority and influencing audiences, establishes a clear, detailed, and realistic picture of the opportunities, resources, challenges, and barriers to climate change adaptation. Qualitative and quantitative **formative research** is a practical and systematic approach that informs program planning and is a critical step in SBC strategy design. Formative research enables researchers to both 1) identify and understand the characteristics/ factors/ behavioral determinants of the priority audience and 2) shed light on the feasibility of the target behaviors an SBC strategy hopes to promote.

Table 1. Understanding Social Dynamics

SITUATION ANALYSIS	AUDIENCE ANALYSIS
• The problem, its severity, its causes, and the broad context in which it exists • The people affected by the problem (potential audiences) • Factors inhibiting or facilitating behavior change (e.g., social norms, market conditions, regulations, policies)	• Sociodemographic characteristics (e.g., sex, age, language, and religion) • Geographic characteristics (e.g., where the audience lives and how that might impact behavior) • Psychological characteristics (e.g., individual needs, hopes, concerns, and aspirations) • Beliefs, knowledge, and current actions related to the adaptation or social issue

The most appropriate way to identify determinants of key adaptation behaviors is to conduct formative research on a collection of possible behavioral determinants and determine which ones seem to influence people who have adopted the behaviors being promoted more than those who have not adopted the behaviors. Using quantitative data helps identify the determinants that are more likely to be truly linked to adoption, i.e., comparing adopters or "Doers" to non-adopters or "Non-doers".

Formative research involves two related objectives: (a) understanding the social dynamics of the priority audience and (b) determining the most appropriate analytical approach or approaches. One might imagine these two related analytical imperatives as intersecting priorities, with one on a horizontal axis and the other on a vertical axis. Both are critical to identifying the evidence needed to determine relevant behavioral determinants, target behaviors, and developing an SBC strategy and implementation plan.

Table 2. Common Formative Research Analytical Approaches in SBC

FORMATIVE RESEARCH APPROACH	DESCRIPTION
Barrier Analysis	A rapid assessment tool that can help organizations explain low or no adoption of a promoted behavior, Barrier Analysis is primarily used at the beginning of a program to determine key messages, strategies, and activities for boosting behavior change. It has been used in food security, adaptation, child survival, and other community development programs. It can also be used in an ongoing program to evaluate ways to improve the promotion of specific behaviors that continue to show low adoption rates. At least 45 Doers and 45 Non-doers of the behavior are surveyed, so the sample size is relatively small. Barrier Analysis can be done rapidly by trained personnel after a five-day training in the methodology. Using a team of 10 people to carry out Barrier Analysis, the data collection and analysis for each behavior studied can usually be completed in one or two days.
Risks, Attitudes, Norms, Abilities, and Self-regulation (RANAS)	Originally developed for the water, sanitation, and hygiene (WASH) sector in developing countries, the RANAS approach is applicable to a range of behaviors, settings, and populations. It includes four steps: 1. Identifying possible behavioral factors 2. Measuring the behavioral factors and identifying the ones that are driving the behavior (by comparing Doers and Non-doers) 3. Selecting or developing corresponding behavior change techniques and strategies 4. Implementing and evaluating the behavior change techniques and strategies. Determinants are explored that deal with risk (perceived risk), attitudes, perceived social norms, ability (perceived self-efficacy/response efficacy), and self-regulation. With RANAS, both behaviors and determinants are measured with a questionnaire and through observations both before and after implementation to control for intervention-independent changes in behavior. Behavior change strategies are judged to be effective when the before–after differences in behavior and the behavioral determinants are larger for the intervention group than for the control group.
Identifying potential determinants within baseline Knowledge, Practice, and Coverage (KPC) survey data	Some programs include questions on a selection of behavioral determinants in their cross-sectional baseline surveys. This can require a large sample size when the number of Doers and Non-doers in a population is disproportionate (e.g., 15 percent Doers and 85 percent Non-doers). It can also lengthen the baseline questionnaire and interview time (sometimes significantly if many behaviors are assessed), but it does allow for a comparison of Doers and Non-doers. An advantage is that it is integrated into the program's baseline survey, so — if staff are trained in more advanced statistical methods — they can better control for confounders and interaction between data points, and do multivariate analysis.

Understanding the priority audience requires examining two key elements of the social dynamics that guide a population's behavior: situation analysis, which looks at the climate risk (problem) and social conditions in which a population operates and makes decisions; and audience analysis, which looks at the specific psychological, geographical, cultural, and demographic characteristics of the priority audience. Table 1 summarizes situational and audience analysis factors for consideration.

The analytical approach or approaches used to guide the formative research can be customized based on considerations including the resources and time available for analysis, the sector or sectors in which the program falls, and whether the analysis is standalone or part of a larger data collection and analytical exercise. These issues should be considered when deciding what analytical method to use. Table 2, while not an exhaustive list, describes common formative research approaches often used for behavior change related formative research.

TEMPORAL DIMENSIONS OF ADAPTATION BEHAVIORS

Interventions that aim to reduce risk and encourage climate change adaptation require an understanding of the temporal dimensions of adaptation behaviors. BJ Fogg's Behavior Grid suggests that behavior can change based on whether the target behavior is:

- New/unfamiliar or familiar
- One that needs to be increased, decreased, or stopped
- One-time, i.e., undertaken for a specific duration of time, or permanent

For example, changing a community's behavior away from clearcutting mangrove forests is often a "tough sell" for many communities that depend on mangrove wood as a resource for fuelwood and construction. While behavior changes in managing mangrove forests can support critical ecosystem services that provide

Table 3. Illustrative behavior changes associated with sustainable mangrove management

TARGET ADAPTATION OBJECTIVE: Strengthen sustainable management of mangrove ecosystems	
ONE-TIME BEHAVIOR	• Community members join to create a mangrove management committee • Mangrove management committee devises a rotation schedule that designates areas of the mangrove forest requiring improved management • Mangrove management committee establishes beekeeping as an income generating activity permitted within certain areas
TIME-BOUND BEHAVIOR	• Mangrove management committee monitors areas of the mangrove forest where mangrove wood harvesting is allowed for a period of six months and where seedlings are under protection for regeneration • Mangrove management committee issues 5 wood harvesting permits per quarter and 30 beekeeping permits per year
PERMANENT BEHAVIOR	• Mangrove management committee continues to meet regularly to oversee management of protected mangrove areas and issue permits • Some community members decrease harvesting wood and increase honey production to diversify their income

Source: Adapted from BJ Fogg's Behavior Grid

Table 4. Designing SBC for adaptation: An illustrative case

ADAPTATION **BEHAVIOR**	 **Farmers adopt water-efficient irrigation practices**	 **Heads of households adopt flood-resistant construction practices**
POSSIBLE **DETERMINANTS**	• Perceived severity (of water scarcity) • Perceived risk (of water scarcity) • Perceived response efficacy (that the irrigation practices work) • Perceived self-efficacy (that one can do the irrigation practices) • Perceived consequences (cost/ benefit of response behavior) • Community identity • Perceived social norms (i.e., whether others support the practice)	• Perceived severity (of flooding) • Perceived risk (of flooding) • Perceived consequences (cost/ benefit of response behavior) and perceived response (action) efficacy • Perceived self-efficacy • Community identity • Perceived social norms • Cues to action
INTERVENTIONS TO ADDRESS DETERMINANTS	• To increase **perceived severity/risk, and change perceived consequences**: Develop interpersonal communication training guide for extension workers about discussing drought risk in the context of climate change and water-efficient irrigation practices. Show farmers photos of devastating crop loss from drought in nearby regions. • To build **perceived self-efficacy**: Support community-based video production of new irrigation practice; share videos in mediated sessions with target farmers; teach motivational interviewing techniques to build perceived self-efficacy; hold demonstration sessions. • To build **perceived response efficacy**: Use side-by-side fields with and without water-efficient irrigation practices to demonstrate effectiveness. • To build **community identity and perceived social norms**: Give public recognition to farmers adopting new irrigation practice, and host demonstration days at adopting farmers' fields.	• To increase **perceived severity, risk and response efficacy/perceived consequences:** Hold interactive community information sessions about climate change-induced changes in flood risk to homes and response options. Create flood maps to show which houses are at increased risk. Show heads of households photos of devastated houses from flooding in nearby regions. • To increase **perceived social norms and community identity, and cues to action**: Implement flood-resistant demonstration homes in cooperation with homeowners with homes in highly visible locations; use guided testimonials to promote them. • To increase **perceived self-efficacy**: Include hands-on training sessions during demonstration home (re)construction. • To increase **perceived risk and cues to action**: Work with local radio and print media outlets on stories about flood risk and flood-resistant construction practices.

economic benefits to individuals and communities over time, such as protection against coastal flooding and improved fisheries health, progress toward adaptation is often challenging. Its benefits are not always tangible or immediate, and its costs to livelihood security or other important dynamics may be very clear, immediate and significant, i.e., reduced income.

Table 3 provides a tool for assessing the nature of behavior change as it relates to a specific adaptation objective. Specifically, it identifies relationships between specific behaviors associated with that adaptation objective, and the context in which these behaviors might occur.

MATCHING ADAPTATION CONTEXTS WITH SBC APPROACHES

Often interventions begin with 1) an assumption that information is missing and therefore needed, and 2) an assumption that a set of key benefits of a given behavior are the same benefits or motivators that will drive behavior change. Even a relatively focused change in individual behavior — for example, properly using a mosquito net — may involve changing and coordinating the behaviors of multiple actors at multiple levels to enable the behavior. Because various actors may be motivated or discouraged by different factors, assessing determinants provides essential insight that may shape how to target and influence behaviors. Table 4 provides a framework for linking target end behaviors in adaptation, determinants of behavior change, and interventions that encourage behavior change.

SBC TIP:

SBC programs apply behavior change models and theories based on specific behavioral determinants. When designing SBC programs, there is not one correct theory to use for a given situation, but some theories may fit better than others. Each SBC project should develop its own theory of change drawing on concepts from the most relevant models and theories to achieve behavioral objectives (See Module 2: Defining SBC Objectives to Encourage Climate Change Adaptation).

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[MODULE 2] Defining SBC Objectives to Encourage Climate Change Adaptation

KEY TERMS

SBC Audiences

Priority audience: a group whose behavior must change in order to improve the adaptation outcome.

Influencing audience: individuals who have the most significant and direct influence (positive or negative) over the priority audience. The influencing audience can exist at different levels: at the family level, community level (e.g., peers, relatives, teachers, community or faith-based leaders) or national or regional level (e.g., policy makers, media personnel, government leaders).

Segmentation: A key component of audience analysis, segmentation is the process of dividing a large audience into smaller, more homogenous groups (segments) with similar needs, values, or characteristics.

Performance indicators for adaptation interventions are often stated as general objectives that may be challenging to measure (e.g., integration of climate change into local-level planning increased; adoption of local solutions to climate variability and change increased). When developing an SBC strategy to encourage climate change adaptation, USAID should first base adaptation objectives on recommended practices (e.g., incorporating weather and climate information into water resource management, river basin management, and/or disaster risk management plans), and then analyze each one by its social and behavioral determinants to develop a set of SBC objectives for each. Effective SBC aligns overarching objectives with specific behaviors that are directly linked to improved outcomes.

WHICH BEHAVIORS SHOULD BE TARGETED FOR ADAPTATION?

Adaptation can involve adopting or modifying a range of behaviors depending on the target group or **priority audience**. Situation analysis and formative research help practitioners 1) assess which behaviors are feasible and effective behaviors to promote, 2) understand **priority audiences** and groups that may influence them (**influencing audiences**), and 3) unpack behavioral determinants from the perspective of target groups to focus interventions and identify entry points (see Module 1: Understanding Behavioral Determinants of Climate Change Adaptation).

However, adaptation measures are often highly context specific because the impacts of climate variability and change are experienced differently by different groups. Consider the following groups:

- Coastal fishing communities
- Nomadic pastoralists
- Urban slum-dwellers

While the overarching adaptation objective may be similar across these groups, each represents a potential **priority audience** with different attitudes and ways of coping with climate variability and adapting to climate change. For this reason, it is more effective to refocus the adaptation objective in SBC terms.

ADAPTATION OBJECTIVE
Increase adoption of local solutions to decrease impacts of climate variability and change

Refocused in SBC terms:

Coastal fishing communities

- Designate fishing zones to prevent overfishing and improve fisheries management
- Plant new mangroves in a degraded forest as a flood protection measure

Nomadic pastoralists

- Establish community pasture and water management committees
- Map livestock grazing corridors to integrate into local land use plans and identify contingencies

Urban slum-dwellers

- Implement low-cost upgrades or strengthen housing infrastructure to be more resistant to extreme events
- Learn about evacuation procedures and where to seek shelter

WHOM TO REACH, AND HOW?

Just as different groups have distinctive views and ways of responding to climate variability and change, so too do they respond differently to SBC interventions. Recognizing this, SBC looks to market or audience segmentation – the process of dividing a large audience into smaller groups (segments) that have similar needs, values, or characteristics to determine how to effectively reach target, or priority, audiences (Health Compass, 2017). For example:

- **Certain segments are more heavily impacted by the problem:** For example, women tend to be more vulnerable than men to the impacts of climate change because they face everyday forms of social, economic, and political inequality.
- **Certain population segments have significantly different worldviews, needs, or concerns:** For example, men who herd livestock may proudly view pastoralism as a traditional way of life, while youth who participate in pastoralism increasingly view it as nonviable livelihood.
- **Certain segments are more difficult to reach:** For example, coastal fisher folk may not have access to television or radio and need to be reached through community workers.

These factors interact to influence behavioral determinants. For example:

- Women prefer not to implement upgrades to their homes because men are traditionally responsible for constructing shelters (determinant: perceived social norms).
- Youth may not see the advantages of mapping livestock corridors because the past migration season was particularly difficult due to drought (determinant: perceived response efficacy).
- Fisher folk may have a low estimation of their ability to rehabilitate mangroves because they lack skills and authority necessary to plant and sustainably manage mangrove stands (determinant: perceived self-efficacy).

While SBC strategies to encourage the adoption of adaptation behaviors will depend on the behavioral determinants identified through formative research, most effective SBC interventions target people at multiple levels of social organization and in multiple roles (e.g., individuals, households, communities, leaders) simultaneously, focusing on the behavioral determinants that are most closely related to priority behaviors.

For example, a project may want to help urban slum-dwellers identify ways to implement upgrades to their homes as a medium-term solution to increasing climate variability, framing upgrades as a way to avoid loss. The project could choose to achieve that objective by:

- Holding training sessions with mothers in areas that have experienced a recent severe storm on their options for more weather-resistant materials, and how to use them, targeting the individual (self) and interpersonal levels to address determinants like perceived risk and perceived self-efficacy;
- Engaging men and community opinion leaders about simple upgrades that can be undertaken by women as an adaptation measure, targeting the interpersonal and community levels to address determinants like perceived social norms; and/or
- Constructing model weather-resistant public buildings around marketplaces, churches, and mosques, and working with local vendors to ensure that materials are available for construction (e.g., used plastic jugs), targeting the community and enabling environment levels and addressing determinants like perceived response efficacy.

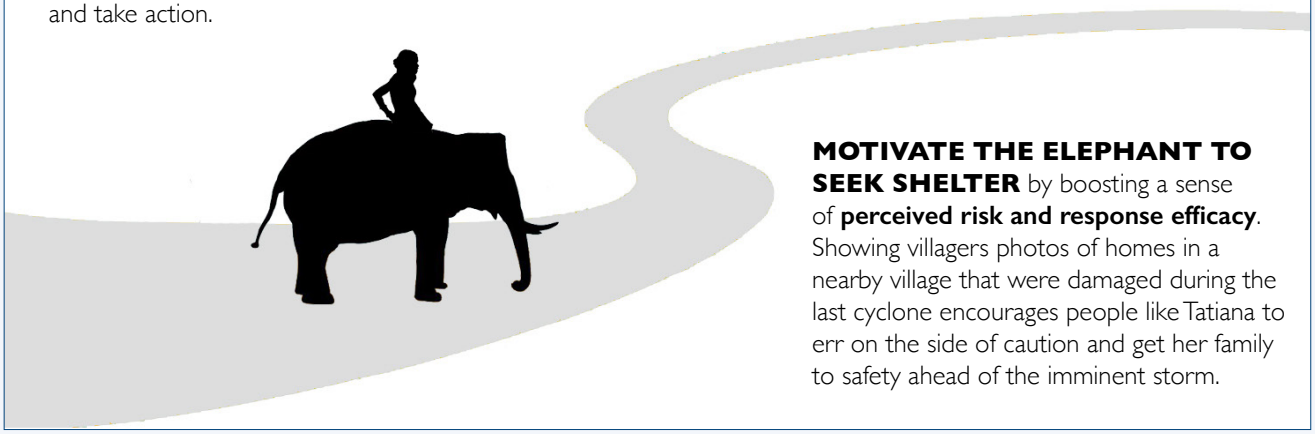
As program development moves from formative research to identification of behavioral determinants and target behaviors, and into thinking about specific behavior change-focused activities through which to promote target behaviors, SBC can be put into practice by defining and matching an SBC objective with a behavior change technique through a specific intervention channel. Table 5 provides examples of different techniques and how they might be applied.

GETTING THE ELEPHANT AND THE RIDER ON THE RIGHT (AND SAME) PATH

To elicit a change in villagers' behavior to take shelter during a cyclone, and instill risk-reducing practices, the village council issuing the cyclone warning might:

DIRECT THE RIDER TO SEEK SHELTER by shaping perceptions of **self-efficacy.** Engaging local radio stations to share shelter locations and the safest means of traveling to the site will help listeners like Tatiana understand their options and take action.

SHAPE THE PATH TOWARD SEEKING SHELTER by ensuring shelter locations are set up in familiar locations, easy to get to, and equipped to meet basic needs for villagers like Tatiana and her family. A shelter that is accessible, safe, and meets basic needs assuages Tatiana's concerns about caring for her family, allowing her to maintain compliance with **social norms.**



MOTIVATE THE ELEPHANT TO SEEK SHELTER by boosting a sense of **perceived risk and response efficacy**. Showing villagers photos of homes in a nearby village that were damaged during the last cyclone encourages people like Tatiana to err on the side of caution and get her family to safety ahead of the imminent storm.

Table 5. Types of SBC techniques

SBC TECHNIQUE	DESCRIPTION	CLIMATE CHANGE ADAPTATION INTERVENTION LEVEL
Reward and threat	Makes the adoption of behaviors seem attractive or makes the failure to adopt practices seem threatening. This is linked to the concept of "value exchange" (i.e., what desirable outcome would the audience receive for its compliance, or what undesirable outcome would it avoid).	Introduce incentives for fisher folk to plant mangrove seedlings
Shaping knowledge	Helps people to understand what adaptation behaviors are, how to perform them, and where to acquire the technologies and materials needed.	Support district to launch a campaign of demonstration communities within mangrove ecosystems
Changing the physical environment	Involves structural changes to the surrounding environment. Also refers to resetting environmental defaults so that a new behavior is easier to sustain due to sympathetic cues and triggers.	Support local pasture management committee to demarcate community pasture to allow for regeneration
Social support	Involves providing resources and facilitating influence. "Seeding" a new behavior with a trusted person or group helps ensure the new behavior appears desirable and starts to become the norm, leading people to want to emulate and model it.	Train community workers to advise on shelter areas and disaster risk reduction procedures
Goals, planning, and monitoring	Working with an audience's goals involves unearthing its aspirations, ambitions, and intentions, reframing the new behavior as a way of achieving the goals, and helping the audience realize its goals through the medium of the new behavior.	Help families to create purchasing plans for weather-resistant home upgrades and linking to their aspirations
Comparisons	Provides a choice of options and the opportunity for people to compare what is available with the options chosen by their peers, neighbors, friends, and family members.	Demonstrate the availability of various construction materials in the local market
Identity and self-belief	Targets audiences according to their actual or aspirational roles. Gender and other roles determine how we perceive ourselves, how we are perceived, and how we are expected to think and act. Linked to this is the process of increasing people's sense of self-efficacy and building momentum behind a desire to change their behavior.	Empower youth to apply their interest in modern technology to improve pastoral livelihoods
Regulation	Regulatory mechanisms include bans and restrictions, or industry standards. They are a measure of enforcement as opposed to persuasion, and can amplify "softer" behavior change techniques.	Encourage local fisheries management committee to impose restrictions on quantity and/or size of fish harvested

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[MODULE 3] Developing an SBC Strategy and Implementation Plan for Climate Change Adaptation

To create an SBC strategy and implementation plan that encourage climate change adaptation and improves resilience outcomes, USAID and implementing partners can use the elements described thus far in this guide, including SBC concepts, planning tools and methods, taking into consideration the unique characteristics and challenges of climate change adaptation (see Overview: Integrating Social and Behavior Change in Climate Change Adaptation).

In the design of an SBC strategy and implementation plan, USAID and implementing partners should follow the process described in this guide:

1. Conduct formative research to understand the societal dynamics (e.g., socioeconomic factors, cultural factors) of the target population (See Module 1: Understanding Behavioral Determinants of Climate Change Adaptation).
2. Use formative research to identify relevant behavioral determinants (e.g., perceived risk, perceived self-efficacy). (See Module 1: Understanding Behavioral Determinants of Climate Change Adaptation).
3. Use identified behavioral determinants in combination with relevant climate variability and change impacts to the population to articulate the relevant behaviors targeted for change (See Module 2: Defining SBC Objectives to Encourage Climate Change Adaptation).
4. Develop an SBC strategy and implementation plan that incorporate the target behaviors, as well as specific interventions that will influence these target behaviors.

DEVELOPING AN SBC STRATEGY

A climate change adaptation-focused SBC strategy and implementation plan should provide the rationale for undertaking specific activities that encourage adaptive behavior and a roadmap for how to obtain the targeted results. These documents should capture the relevant behavioral determinants and target behaviors necessary to obtain adaptation outcomes in response to projected climate variability and change while providing direction to inform programmatic actions, including development of communications products, training materials, and other activities.

An SBC strategy does not have to follow a particular structure; however, to be effective and obtain buy in from beneficiaries, implementers and other stakeholders, it should be constructed taking into consideration the following:

- Targeted formative research findings
- Key adaptation behaviors to be promoted identified
- SBC objectives clearly articulated
- Priority audience clearly identified
- SBC implementation plan developed with indicators related to implementation of communication/non- communication activities, including changes in reach, recall, acceptability, behavioral determinants, behaviors, and outcomes
- Well-defined communication activities, messages (and messaging channels), and supporting materials
- Well -defined non-communication activities and services to reach priority audience (e.g., nudges, incentives, subsidies)

Several approaches to developing an SBC strategy exist, including the Designing for Behavior Change, Communication for Change (C-Change), Health Communication Capacity Collaborative (HC3), and RANAS approaches.

CREATING AN SBC IMPLEMENTATION PLAN

A completed SBC strategy should be accompanied by an implementation plan, which serves as the management document guiding SBC strategy implementation, articulating the specific SBC strategy activities, how they are linked to the behaviors targeted for change (and to the behavioral determinants for the relevant behaviors), who is responsible for implementing the activities, the activity implementation schedule, and indicators to measure activity implementation progress. The SBC implementation plan is similar in some respects to a monitoring and evaluation plan.

Table 6 presents an illustrative SBC strategy implementation plan for a project seeking to encourage the uptake of postharvest practices with maize producers.

This strategy: 1) demonstrates an understanding of the problem and situation; 2) identifies the key behavior to be promoted, the priority group (maize producers), the influencing groups (elders, fathers, and grandfathers) and characteristics of each group; and 3) matches SBC interventions with the identified determinants of the behavior.

Table 6: Illustrative SBC strategy implementation plan

Target groups and characteristics	Matching SBC interventions with determinants	Activities	Timeframe				Activity monitoring and evaluation indicators	Skills / resources / training required
			Q1	Q2	Q3	Q4		
Target behavior: Producers store their maize in silos before consuming it								
Priority group: • Men and women who are farmers from 17 to 80 years of age, average 44 years old • All speak Q'eqchi' language • Maize harvest and postharvest practices have been established through generations • Low economic status • Most are subsistence production farmers **Influencing groups** • Community elders • Fathers and grandfathers • Elders do not approve of new practices and instead favor traditional methods established through generations	• ***Perceived self-efficacy***: Strengthen the perception that producers can store their corn in solos with their current resources and skills. • ***Perceived social norms***: Strengthen the perception that families can support the use of silos for storing corn before consuming it.	• Provide training on what silos are, the range of options available on the local market, and ways to obtain one. • Engage community elders, fathers, and other family members in training sessions and facilitate opportunities to store corn in silos. • Monitor behavior indicators through Knowledge, Practice, and Coverage (KPC) survey » If target and influencing groups are being reached and activities are being implemented but there is no observed change in target behavior, reassess 1) appropriateness of activity and 2) compatibility of interventions and determinants.	X X	X X X	X X X	X X X	• Number of training sessions with priority group • Number of community events organized with influencing groups	Resource materials: • Example silos for demonstration and training activities • One-page illustrated handout with key messages, information about local silo suppliers

Source: Adapted from Designing for Behavior Change: For Agriculture, Natural Resource Management, and Gender.

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