



Somalia has ranked as the most failed state since 2008. Years of conflict have devastated the safety, stability, and livelihoods of thousands of Somalis. According to the UN Human Rights Commission, about 1 million Somalis have been displaced internally and about 250 thousand have fled to neighboring countries. The outbreak of violence that began in early 2007 forced an estimated 60 percent of Mogadishu's residents to leave their homes, many going to internally displaced person (IDP) camps at the city outskirts. In these camps, refugees live close together in tents and makeshift structures, safer from violence but subjected to ever-increasing hardships with little to no facilities or services. Children have been affected most by the breakdown of state institutions, as schools became the first casualties.

However, the decline of education quality and standards began in the mid-1980s and culminated in the disintegration of the state and subsequent breakout of civil war in 1991. In this period, the number of primary schools and pupil enrollment dropped dramatically; textbooks and supplies disappeared; teacher attrition soared; classrooms deteriorated; and the overall quality of education declined. Public allocations for education declined from 2.2 percent of GDP (gross domestic product) in 1975 to 0.3 percent in 1989. As a result, between 60 and 70 percent of school-age children have lost the opportunity to attend school. Today, Somalia has one the lowest student enrollment rates in the world with an estimated 20–30 percent gross enrollment and among the lowest public financing of any country. Girls continue to be underrepresented at all levels of education, especially in rural areas. By the 8th grade, girls make up a mere 25 percent of all students, and their numbers continue to decrease thereafter.

Under these fragile conditions, conventional approaches to education do not work. To implement a project funded by the U.S. Agency for International Development (USAID), Education Development Center, Inc. (EDC), introduced a different strategy—Interactive Radio Instruction (IRI) accompanied by a series of attractive readers with meaningful stories and messages to young children.

Somali Interactive Radio Instruction Program

The Somali Interactive Radio Instruction Program (SIRIP) has provided high-quality interactive audio programs to children attending formal, non-governmental, Quranic, and community chools. It has helped to stabilize fragile communities by providing a consistent, attractive, and reliable service; engaging families and communities; and teaching knowledge and skills that both children and adults need in order to move out of conflict and poverty.

The program began in 2005 and continued through September 2011. Radio programs are broadcast daily or supplied on digital media players to students and teachers. In addition to basic reading and math in Somali, the programs teach life skills, such as health and conflict prevention and mediation,

and also emphasize the importance of educating girls. SIRIP has reached over 330 thousand children in grades 1 through 5, including disadvantaged, out-of-school children most in need of education.

Using radio to deliver information and instruction is in complete harmony with Somali culture and movement patterns. For people who have an oral culture and are frequently on the move, audio programs have proven extremely effective in providing a consistent form of education and information. Radio is also a prevalent communications channel in much of the country. A 2002 survey reported that almost 40 percent of rural and nomadic households listen to radios and that radios are the second most prevalent household possession after a flashlight or lantern.

SIRIP broadcasts a regular schedule of programs on FM bands in the South-Central Region, Somaliland in the northwest, and Puntland in the northeast. Each of the stations broadcast SIRIP programs for three hours a day, up to five days a week. The rest of SIRIP activities are largely implemented through a network of on-the-ground partners who train teachers in the methodology, distribute materials, and monitor the teaching and learning in the classrooms as well as collect data about the intervention.

With the assistance of the audio programs, teachers lead the classes and are thus trained in interactive teaching methods, which include stories, activities, educational songs, and other forms of active learning pedagogy. Supplemental materials accompany the programs, providing schools with the resources to support sound, primary-level instruction.

The cost of IRI programming is extremely low compared to producing or purchasing textbooks and delivering them to classrooms, constructing schools, or sending teachers to teacher training colleges. Under the conditions in Somalia, where transportation is limited and building and teaching materials are scarce, the cost difference between IRI and conventional classrooms is even greater.

Interactive lessons by radio

Each day, the teacher—or the person designated as the teacher—uses a radio either to receive a broadcast or to plug in a flash drive loaded with that day's program. Wind-up and solar-powered radios are used where power sources and batteries are not available. Each 30-minute program is made up of a series of activities, songs, poems, dramas, and interviews that address the day's learning objectives. The same radio characters appear each day, including a radio teacher and students who model the activity and skills for those in the listening audience. For example, a reading program might address one letter, its sound and what it looks like, through a song. The radio teacher might then lead the teacher to lead an activity about that letter. This instruction is guided and assumes that most teachers have not had access to teacher training and may not even be completely literate. Thus the radio teacher will say, "Now, teacher and students, let's play a game with the word *BOOK*. Remember, students, *BOOK* is spelled B-O-O-K." In this way, poorly educated teachers who are not sure how a word

is spelled in Somali are confident that the spelling is correct. The radio teacher then directs the class teacher to lead the activity, giving step-by-step instructions.

The teachers' guide and the radio program instruct the teacher what to do after the program to carry out what has been modeled in the lesson. For example, the students create posters in which they use a letter to create a personality with traits that begin with that letter—Miss R wears a red scarf, rings, is very rich, lives near a river—a decorate their classroom walls with the posters. The readers that accompany the radio program reinforce the lessons.

Program content

SIRIP has developed and aired 940 IRI episodes for grades 1–5 in Somali and math. It has also distributed nearly 100 thousand learning materials, including Lifeline radios, MP3 players, teachers' guides, and books.

In addition to the series of lessons in reading and math, the IRI programs offer vital information on the prevention of malaria, treatment of diarrhea, importance of vaccinations, good nutrition, prevention of conflict and conflict-mediation techniques. Information is detailed but also simple enough for a primary school student to understand. In the IRI programs, messages are not didactic. The story may present a conflict situation that is more akin to an argument on the soccer field than a lesson in conflict prevention. Yet the story dramatizes conflict-resolution techniques that may be used in real-life situations. Listeners love the characters and gladly attend to an elder in a drama who ultimately comes around to understand the importance of sending his daughter to school. Parents want their children to learn math and reading; thus the programs have been acceptable by all. Quranic school teachers are often the most enthusiastic population. Integrating health and other life-skills messages into reading and math lessons is effective, because, after decades of being courted or conquered by foreigners, warlords, and now terrorist groups, Somalis are often wary of messages from sources they might not know or trust that tell them how to behave.

The radio programs include drama segments that portray scenes in which children deal with and manage conflict and learn to tolerate and celebrate differences between people. Triggers of conflict, including differences between clans, are presented in dramatic situations in which children find ways to resolve conflicts without using violence. The programs also include lessons in gender awareness, health, and the physical environment.

Audiences

The target audience of SIRIP has been primary school-age children, which it has reached on a large scale. Many of these are children who were out of school, either in IDP camps or remote communities, until SIRIP built learning centers for them. Of the 330,000 children reached in South Central Zone,

Puntland, and Somaliland, 40 thousand are out-of-school learners; therefore, SIRIP provides them with their only access to education. The programs have also reached youth and adults. Radio has provided a ubiquitous means for reaching Somali children and a significant shadow group of adult listeners, even when restrictions on movement by political forces prevented children from attending school. Many listeners follow the programs while shining shoes in the market or selling fruit. Parents listen at home, at work, or even attend school with their children.

Delivery channels

The main delivery channel is broadcast radio. Somalia has enjoyed a proliferation of private radio stations. The exception has been Somaliland where only a government radio station is allowed to function. While the fragmentation of the country brought about the privatization of the radio broadcast industry, no one radio station existed that could reach the entire country, and private radio stations could not operate freely in areas controlled by rebels. Hence, while SIRIP relied on a network of FM radio stations (namely, HornAfrik, Danan, and Radio Shabelle in South Central Somalia; Radio Daljir and SBC Radio in Puntland; and Radio Hargaisa), an alternative delivery mechanism became essential. Starting in 2009, programs were stored in Lifeline radios with MP3 players so that schools and communities would have access in locations where radio signals were unavailable. More than 40,000 learners have relied on this alternative.

Learning centers

Where there are schools, radio broadcasts are managed by teachers in the classroom. In the many parts of Somalia where there are no schools, EDC works with more than 39 local and international organizations to implement and institutionalize the program through community learning centers. SIRIP has selected organizations (three in Somaliland, four in Puntland, and four in South Central) to recruit and establish learning centers to reach out-of-school children and youth. With these partners, SIRIP has mobilized communities to plan, start, manage, and maintain learning centers and, in some cases, to even build new schools. In 2009 alone, 245 communities opened new learning centers or schools.

Some learning centers help to redress inequities that lead to conflict by reaching children in marginalized communities. For example, SIRIP has provided education to 300 Gaboye children in the Daami neighborhood center in Hargeisa, Somaliland. The Gaboye people are a marginalized group that has historically been labeled as untouchable by other Somali clans. They have been subject to mistreatment and degrading conditions for years, resulting in widespread poverty. Communities like these in Galkacayo and Garowe were also supported.

Teacher training

It is estimated that fewer than half of Somalia's primary school teachers have qualifications beyond primary schooling, and even those who do have not generally been well trained to teach. SIRIP has trained about 9,500 teachers on universal teaching competencies, which are reinforced by the IRI lessons in the classroom. Many of those who have been trained are among the displaced, and they are working to ensure learning continues despite the unrest. EDC has trained teachers in tent schools in the camps, where wind-up radios and other materials have been distributed to encourage tuning in to the broadcasts.

IRI programs offer opportunities for young people with a few years of primary schooling to become IRI teachers. A three-day, face-to-face training program helps them acquire the skills and confidence to facilitate IRI lessons and to be appreciated by their communities. But the most important and lasting teacher training is embedded in the daily IRI lessons that children receive. Every IRI lesson has a teaching objective that provides skills in how to manage the classroom, develop teaching and learning resources, and use effective teaching strategies. The programs reinforce these skills daily. In this way, the radio programs provided in-service training for teachers, monitored by their students. For example, if the teacher is instructed to "ask a girl what Rooble should do next," the children will not let the teacher call on a boy.

Somalia Readers Series

The long and violent conflict has resulted in the slow erosion of many aspects of Somali culture, including folklore and history, which is largely passed on by oral tradition. SIRIP thus looked for ways to help children learn traditional stories as they learned to read. EDC staff undertook an extensive search to find Somali folktales that could be made into books. Surprisingly, the search took them to a school district in Minnesota, to a teacher who had collected folktales from her Somali students and written them down in both English and Somali. EDC adapted the stories as a series of books for early readers and hired an artist to illustrate them.

One book, for example, presents a story about an elephant and a squirrel who are friends. They enjoy doing many things together but swimming is not one of them. The elephant loves to splash in the water, but her squirrel friend is afraid. The story ends with the message, "Don't expect everyone to like what you like, and don't think that you should like what everyone else likes." These slim volumes carry a certain weight with them, providing much-needed education through Somali folktales that have been all but lost. They also convey the critical messages of peace and safety. Each story concludes with educational resources and lesson ideas to assist teachers.

The project has produced more than 20 books for early and intermediate-level readers. It is developing chapter books for more advanced readers and exploring ways to distribute the books more widely.

Challenges of working in a fragile context

In trying to help Somali children receive an education, EDC has faced the whole spectrum of challenges found in fragile environments, but often amplified in Somalia: incendiary tensions among clans, acute insecurity and danger, and dysfunctional governments.

Clan tensions

The radio programs were designed to reach all Somalis, regardless of clan or nationality. Because of the fragile social environment and hostilities among sub-clans and sub-sub-clans, the characters and vocabulary of the programs reflect all regions, as do the drama and storyline in each program. Technically, this has meant recruiting Somali scriptwriters and actors from all regions so that the programs could be acceptable to all listeners. Moreover, EDC had to be adaptable; we could not produce one single version of each program but had to produce different versions for different audiences. For example, many religious extremists have accepted the programs but insist that the music be eliminated. For those schools, the music has been replaced by a capella chants or songs suitable to the culture of the learners.

Insecurity

Violence and insecurity in major areas of South-Central Somalia often hampered SIRIP activities. When rebels targeted humanitarian workers in Mogadishu or kidnappings and killings threatened project staff, they had to be evacuated or otherwise protected. The uncertainty caused by ongoing conflict made long-term planning difficult. EDC worked with the Horn of Africa FM radio station in Mogadishu to broadcast programs that were especially valued when children were confined to their homes during conflict. But when the station owner and his staff were killed, those programs came to an abrupt end. Arbitrary and sudden changes replaced planning with improvisation. Teacher training and monitoring schedules sometimes had to be rescheduled. The violence made transporting people and materials on the treacherous roads of the south and central regions risky. Outside major towns, the roads were non-existent in many locations. Even in the more stable regions of Puntland and Somaliland, only a few new roads had been built or rehabilitated. To distribute materials and monitor activities, EDC mostly relied on informal arrangements with local training partners.

In this insecure environment, IRI programs could be delivered with fewer training sessions than conventional face-to-face training programs, requiring less transporting of people.. IRI is by nature less susceptible to periods of unrest as content can be regularly delivered from afar. And while IRI

content is most effective with a facilitator or teacher who conducts pre- and post-broadcast sessions, small radios are widespread in Somalia, and many children are able to take advantage of the programs outside of a classroom setting.

Government dysfunction

Somalia's varied and adversarial authorities placed demands on the project that caused implementation delays. The country's division into three administrative zones after 1991 gave rise to three separate ministries of education that operate independently with little coordinated planning. Each runs its own schools, but each has insufficient human and other resources to operate a supportive system.

Does SIRIP mitigate fragility?

In the face of these challenges, children who participated in SIRIP programs learned more than their peers in non-SIRIP classrooms. Grade 1 SIRIP learners scored 15 percent higher than non-SIRIP learners in Somali literacy and 20 percent higher in math.² Older SIRIP learners, many returning to school after disruptions, showed learning gains of 21 percent as compared to 8 percent for other older students.

SIRIP has thus resulted in a high-quality basic education for children, many of whom would have had no other option for education. As well as reading and math, SIRIP has taught children some of what they need to know to move out of conflict and poverty. By providing a consistent, attractive, and reliable service and by engaging families and communities, SIRIP has helped to stabilize fragile Somali communities.

²Ho, J., & Thukral, H. (2009). *Tuned in to student success: Assessing impact of interactive radio instruction for the hardest to reach*. Washington, DC: Education Development Center, International Development Division.