Internews
Humanitarian Information Services
Learning Collection

Radio Distribution Module

Part III. How To Guide

Internews
Local voices. Global change.

Cover photo:

Children in Mahad, a temporary settlement for IDPs in Juba, listen to “My Mahad,” a program featuring stories about the community. In addition to supporting “My Mahad,” Internews distributed wind-up solar-powered radios to Dinka, Anyuak, and Murle groups in Mahad.

The Internews Humanitarian Information Services Learning Collection communicates key lessons, best practices, and programmatic methodologies used by Internews' humanitarian teams around the world.

Each module within the Learning Collection includes three parts: Context, Case Studies, and a How To Guide. The How To Guide is usually packaged separately for ease of use.

The South Sudan HIS Learning Collection includes:

- *Boda Boda Talk Talk*
- *Listening Groups*
- *Radio Distribution*
- *Communicating with Communities (CwC)*
- *Humanitarian Radio*

While radio remains the most accessible and trusted source of information for the majority of South Sudanese, many do not have access to one.

Radio Saves Lives

Why is it important for people to have a radio, even if they may have access to other forms of media? What do they choose to listen to, and how does this information affect their daily lives? How do you design a radio distribution to maximize information access for a displaced community living in a camp, or in an area with many people on the move?

Since the outbreak of conflict in South Sudan in late 2013, Internews has been working to distribute over 40,000 radios to communities across the country. Along with radio distribution, other activities have expanded information access, such as establishing designated areas where people can listen to programs in the morning and evening hours (the most preferred listening times), creating more listening groups (particularly among females who generally have less access to information), and working with community and religious leaders (who are also identified as important sources of information) in order to prevent conflicting or contradictory messaging, ensure consistency, and improve quality control.

This Radio Distribution Module contains the collective knowledge of the Internews South Sudan team gained over three years' experience conducting radio distributions within the United Nations Protection of Civilians sites (PoCs) and surrounding communities. Depending on your interests, each section is useful and can be read on its own. When combined together, the three parts of the Module give you a holistic understanding of radio distribution projects in South Sudan, and what the Internews Humanitarian Information Services team has learned over three years of implementation.

“Part I. Context” describes the information and media landscape in South Sudan and the continued prominence of radio in people's lives. It summarizes research on the importance of information access for health, education, and peacebuilding outcomes, and highlights Internews' radio distribution activities in service of these aims.

“Part II. Case Study” details radio distributions conducted in the Bentiu PoC and Malakal to expand information access and listenership for Boda Boda Talk Talk and Nile FM programs. The case studies also include lessons learned, particularly the adaptive programming over time, in order to offer recommendations for future radio distributions.

“Part III. How To Guide” provides a step-by-step methodology for procurement, planning, conducting, and monitoring a radio distribution in any location. It includes guidance on choosing a radio, selecting a distribution sample, various distribution methods, and monitoring and reporting on distribution. This document contains Part III. Parts I and II can be downloaded here.

The Radio Distribution Module was designed by the Internews South Sudan team. It is part of the Internews Humanitarian Information Services Learning Collection, which communicates key lessons, best practices, and programmatic methodologies used by Internews' humanitarian teams around the world.

Access to information fuels behavior change and improves health and sanitation outcomes for communities. It can also help shift attitudes about gender roles in society. Increased media access has shown a strong positive correlation with acceptance of women working outside the household.

Radio Distribution
Part III. How To Guide

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A regular contributor on topical issues to Nile FM, this visually impaired man received a radio to facilitate his continued feedback.

Introduction to Part III

Part III. How To Guide provides a detailed, step-by-step methodology for conducting a radio distribution, based on Internews' experience in four HIS project locations: Malakal, Juba (UN House), Bentiu and Bor. The practical application of the guide will be particularly relevant for NGOs, UN agencies, CSOs, local authorities and any other organization seeking to carry out a radio distribution. (Parts I and II can be downloaded here.)

This guide outlines the step-by-step processes and potential challenges that may arise. You will find information and advice on the entire process, including how to choose the right radio to suit your conditions, how to select beneficiaries, how to recruit staff, and how to monitor and evaluate the impact of the distribution.

While this guide describes the approach used in South Sudan, it is also designed to be flexible. The methods should be adapted to the local context and to the resources available.

As with all distributions of food and non-food items to affected populations, all radio distribution systems should be fair, accountable, transparent, and gender sensitive.

The following principles should be kept in mind at all times when creating your radio distribution plan:

- **Fairness:** all emergency affected populations have an equitable right to receive the radios, determined by an objective assessment of their information needs. While everyone in the community has a right to access fair and balanced information, we will discuss how to ensure the largest number of vulnerable people may benefit from your radio distribution and how to ensure socially or politically vulnerable residents are not excluded.

- **Accountability:** the radio sets should be provided to the intended beneficiaries in a manner that can be monitored - or verified - by beneficiaries, the implementing agency, and/or donor. In other words, if you say you will distribute 500 radios in the community, what systems are in place to prove this actually happened?

- **Transparency:** key stakeholders such as the beneficiary community, NGO partners, and donors should all be aware of how you plan to conduct your distribution and be able to witness the distribution in action. In particular, a lack of transparency and accountability can cause tensions between your organization and the community you're working to assist. What systems are in place to ensure the community can easily ask questions about the distribution and contribute to the design and monitoring of the project?

- **Gender sensitivity:** gender relations and roles need to be taken into account in planning distributions to make sure radios can be accessed by the entire household (especially women) and that radios are used for their intended purpose. In polygamous societies, women should be considered as the head of household to receive the radio. Distribution to women is recommended for two main reasons: first, women often have the primary role in household management, so improving their information access typically correlates with better decisions made for the health and security of the entire family; second, women are also more likely to use information for protection purposes (as opposed to sale or exchange for other goods).

Any radio distribution should take into account vulnerable groups that may lack access to information, such as women.

Step 1. Researching & Evaluating the Context

Before you begin your radio distribution, it is vital to first think about the intended outcome of your distribution and consider the consequences that radio access will have on the community. Do you intend to give the community better access to existing radio broadcast information sources (whether they be state, government, commercial or NGO/UN-backed broadcasters), or will this distribution allow you to launch your own broadcasting service or hyper-local information provider such as the Boda Boda Talk Talk Humanitarian Information Service?[1] How can you design a radio distribution strategy that will maximize the benefit to the affected community (and avoid unintended harm)?

In order to design a radio distribution that both serves your intended outcome and benefits the community, it is first important to understand your *target population.* The target population refers to the different segments of the community that the radio distribution is designed to serve. The purpose, goals, and objectives of the radio distribution program should be the driving force behind the selection of a target population. Do they even like using radios to access information or are there more effective ways to satisfy their information needs? If you distribute radios in an area that only has access to an untrustworthy government-sponsored broadcasting service, will you be seen as aligning with their ideals? And who in the community would be best placed to receive a radio anyway?

Information Needs Assessments (INA)

An Information Needs Assessment is a kind of questionnaire that helps to determine the priority information needs of your community, their most trusted sources of information, how information naturally moves throughout a community and how and when they would prefer to receive information.

Depending on the objective of your radio distribution, conducting an INA can be useful in a number of ways:

1. To determine if radio is the most effective way for humanitarian responders to communicate with communities;
2. To determine which people should be receiving radios and where they are;
3. To understand if there are groups/individuals in the community that act as information providers/ trusted sources and therefore should be prioritized as receivers of the radios;
4. To determine what information communities are missing, so that humanitarian agencies and local governments may use these radios to respond to these information needs effectively.[2]

Internews has developed a suite of common tools for conducting INAs that have been officially adopted by the Communicating with Disaster Affected Communities (CDAC) Network. These tools can be used to understand the information ecosystem in the region or areas of interest in order to benefit the design of a number of information access projects including designing the most efficient and effective radio distribution.[3]

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1 Please access the Boda Boda Talk Talk Module for more information: http://www.internews.org/Bbttlearningcollection

2 This is only relevant if the agency distributing the radios is also interested in distributing content.

3 See "Assessing Information and Communication Needs: A Quick and Easy Guide for Those Working in Humanitarian Response," at http://www.cdacnetwork.org/tools-and-resources/i/20140721173332-ihw5g.

▶ Describing the Target Population[4]

Regardless if you have, or intend to do, an INA, there are important characteristics of the population that need to be explored before a radio distribution can be carried out.

1. **Mobility.** Is the population sedentary? Is the IDP/refugee camp receiving lots of new arrivals per day? Are people coming into the camp for the food distribution and then leaving? Is there a consistent flow of people in and out of the area? This information is important as a distribution to a highly mobile population may not have the impact you hoped for. The same is true for the new arrivals: if many new people are coming in over time, then the radio distribution may have to be conducted in stages, to make sure the new community members also have access to a radio and no conflict arises with the previous beneficiaries of the distribution.

2. **Specific Information Needs.** The target population could be a host community and/or IDPs/ refugees. Each population has unique information needs. In addition to that, women, children, youth or elders may have very different needs and limitations in terms of access to information.

3. **Demographics.** The characteristics of the target population will vary from site to site or even community to community. One key task is the identification of special interest groups in the target population. These include support groups for women, youth or mothers, associations for the elderly or disabled, businessmen, religious groups, ethnic groups and languages, and so on. The description of the demographic is necessary to identify the vulnerable groups that may need to be specifically targeted with the radio distribution.

4. **Power Structure.** Before starting the radio distribution, it is important to understand the power structure of the community, both informal and formal. Take note of what may ordinarily be considered minor details or common assumptions. For example, are the community leaders the sole trusted center of power? Do women tend to mingle with other women and where? Are there strong and active groups in the area such as religious groups, or youth groups? Establish where other centers of power lie, if they exist, and investigate if those groups be leveraged in the distribution process.

This description of the target population will help you to determine the most appropriate sampling and distribution methodology.

4 For an example of how this was done in Malakal, South Sudan see Annex I.

Religious leaders or traditional leaders are often an important trusted information source. Therefore, these individuals are targeted during a radio distribution, so that information they access from the radio can be passed on to others.

▸ Step 2. Selecting the Target Population

▸ Determining Beneficiary Numbers

Any radio distribution plan requires an estimation of the number of beneficiaries, i.e. how many people will access the radios you plan to distribute? You will want to assess if the local population is used to listening to the radio alone or if radio listening is more of a group activity. In many communities, individuals tend to share their radios with family members and neighbors. In this case, by distributing one radio you are actually providing access to information to a larger group. Radio listening habits will also inform the type of radio you will procure: for large groups, you may want to buy radios that have larger speakers, and therefore are easier to listen to in a wider space (radio selection is discussed further in Step 3).

Determining the size of the community can be difficult, especially when working with large, dispersed informal settlements, or with populations that are not static. Registration by the communities themselves, meaning that they self-organize to decide who will receive the radio handsets, is sometimes appropriate where communities are small, intact, or if the distribution is expected to be of short duration only. If the timing and security situation allows, you may choose to work with the community or religious leaders to determine the number of households in your target community through a door-to-door headcount for example. In humanitarian and conflict situations, an external registration has usually already been carried out as soon as is feasible by the dedicated agency (IOM, WFP or others). Often, the best way to get the most accurate information is to use food distribution registration data or check with UNOCHA or the Camp Coordination and Camp Management (CCCM) Cluster to see what beneficiary registration data they may have available.

When a formal registration has not been done, or when registration is thought to be inaccurate, the minimum requirement is to identify socially excluded or politically marginalized groups. In this way, they can be prioritized during distribution.

Registrations need to be regularly updated too. In the initial stages of an emergency, particularly in cases of displacement, beneficiary numbers may change on a daily basis. If the crisis becomes protracted, it is likely that registration data will have to be updated as beneficiary numbers change due to deaths, births, or population movements.

▸ Sampling the beneficiaries

Since radios cannot usually be given to everyone in the population, it is important to use the appropriate population sampling method to ensure you achieve your distribution objectives.

Stratified Sampling

The stratified sampling technique is a mini-reproduction of the population.

Stratification is the process of dividing members of the population into homogeneous subgroups before sampling. An easy way to conduct stratified sampling is to divide the population according to demographic (i.e. by age and gender). Each person in the population must be assigned to only one category or stratum. Beneficiaries are then randomly selected from each stratum.

This method ensures that the radios are distributed fairly within each subgroup (age or gender or perhaps religion or language group) in relation to their representation in the population.

Distributing radios to common gathering places such as markets and trading areas is an efficient way to expand information access to a large number of people.

Example: An IDP camp may have a population of people as outlined in table one below (for illustration purposes only):

			(0-4 YEARS)		(5-17 YEARS)		(18-59 YEARS)		(60 & ABOVE)	
Place of registration	Household	Individual	Male	Female	Male	Female	Male	Female	Male	Female
			400	750	2,500	3,500	1,000	2,000	750	750

Once you have your data outlined as above, you have two different choices on how to create your Stratified sample:

1. **Proportionate allocation**, which uses a sampling fraction in each of the strata that is proportional to that of the total population. For instance, if the population you are sampling consists of 2 times the number of women than men, then you would include twice the number of women in your sample. Or, in using the data example above, you might decide to distribute proportionally relating to the age of your beneficiaries. Here, there are twice as many people who are aged between 5-17 years old (6,000 people) than there are in the 18-59 category (3,000 people), and there are twice as many people in this category as there are in the 60+ category (1,500 people). So a proportionate allocation technique would allocate the largest number of radios to the 5-17 category, half that number to the 18-59 category, followed by 60 & above, and finally 0-4.

2. **Optimum allocation (or disproportionate allocation)** – Optimum allocation allows you to modify your selection of beneficiaries to respond to the intended outcomes of your distribution. If your goal is to expand information access to underserved groups, population size alone may not give you the results you intend. You may need to favor individuals whose language, literacy, disability, gender, or other factors identify them as "information vulnerable."

For example, say you are working in a refugee camp where there are two main ethnicities. One ethnicity, "Ethnicity A," makes up 80% of the population, while "Ethnicity B" is a minority with only 20% of the population. However, your INA has shown you that Ethnicity A broadly has reliable access to good information in their language, while Ethnicity B is struggling to access information in their language. Instead of distributing the radios evenly across the population, in this scenario, you might consider distributing a higher proportion of radios to Ethnicity B even though they represent a smaller portion of the total population.

Minimalist Sampling

The minimalist approach is a proportionate allocation strategy, and it works on the assumption that at least a certain percentage of the whole population should have *access* to a radio set, not necessarily own one, but be able to listen to it either individually or in groups.

In adopting the minimalist approach, begin by considering how large the population is and how many radios are available to distribute. Let's say you have 23,478 people and you decide 10% of the population or 2,378 people, need to have access to a radio set. If, for example, we determine that 10 people can comfortably listen to and share in one radio set (depending on the size and volume strength of the set) to ensure 10% of your population has access to a radio, you will need to distribute 235 radios. If you choose to distribute smaller or personal radio sets, you will need to distribute many more units to still benefit 10% of the population.

Total Population	Target Population (10% minimalist approach)	If listening in groups (maximum 10 members per group) you can reach the 10% of the population by distributing:	If no sharing of the radio is done, then you can only reach 10% of the population by distributing:	If sharing is done, you can reach 100% of the population by distributing:
23,478	2,348 PEOPLE	235 RADIOS	2,348 RADIOS	2,348 RADIOS

Each group owning a radio, or individual, will also need to be evenly distributed in the area of distribution:

If you have 235 radios to distribute and there are 58 blocks, each block will have 4 radio owners (235/58 = 4).

Each of these radio owners will share their radio with 9 other people.

This map of Camp X shows the division of sectors into blocks, as well topographic features and aid facilities.

Purposive Sampling

Purposive sampling, also known as selective sampling, focuses on distributing to a group of beneficiaries decided by the team/organization. This style of sampling is often aimed at identifying the most vulnerable members of the community who have the least access to information. Purposive sampling may be used to address issues of social and political exclusion in a community due to race, religion, ethnicity or perhaps a disability. The target list in the purposive sample is flexible and can grow depending on the change in the population if new arrivals or new groups emerge.

Guiding questions to decide on an appropriate sampling could be:

- Who is NOT represented in local meetings?
- What language is used by the elite/by humanitarians and who is speaking another local language?
- Is the population homogenous, or are there any groups that are socially segregated from the remainder of the community?
- Who is the least literate?
- What is the level of ownership of the distributed radio? (I.e. is it shared?)
- How likely is it that the person receiving the radio will be able to hold on to it? (I.e. Will a woman have to give it to her husband once she is home? Will a youngster sell it on the market instead of keeping it?)

A proper initial site assessment will also help in identifying natural community gathering places where one radio could reach more than one person, like market vendors, tea shops, bus drivers, and water collection points and so on.

Another way to deliver the radio handsets is to ask local leaders or local groups, including NGOs and local committees, to decide who will receive the radio sets. In this process, it is important that they are clearly informed about the criteria to select those persons (% women, % men, % youth, etc). You may need to supervise the process to ensure the decisions are representative, and based on a fair process rather than community power dynamics.

So which sampling method suits your needs? Keep in mind, the answer may actually be a combination of a few of these practices. For example, you may choose to use the Minimalist approach, then also use Purposive techniques to ensure the most vulnerable in the community (who may be left out of random sampling techniques) also receive radios.

The table below illustrates how several sampling methods may be used in combination. Here, radios are distributed using the **minimalist approach** to 10% of the youth, middle aged and elderly population in the community. Next, this distribution is then supplemented using the **purposive method** to distribute to the Disabled Residents Association, Mother Support Groups, NGO volunteers, and a minority ethnicity, combined with the placement of radios in public gathering spaces in the market by distributing to traders.

The figures used below are for illustration purposes only.

POPULATION GROUPS	TARGET POPULATION	GROUPS (MAXIMUM 10 MEMBERS) OR INDIVIDUALS	NUMBER OF RADIOS TO DISTRIBUTE
YOUTH (18- 35)	6000	60	60
MIDDLE AGE MALES (36-55)	1,200	12	12
MIDDLE AGE FEMALES (36-55)	2,600	26	26
ELDERLY MALES (56 & ABOVE)	300	30	30
ELDERLY FEMALES (56 & ABOVE)	600	60	60
DISABLED RESIDENTS ASSOCIATION	120	12	12
MOTHER SUPPORT GROUPS	520	52	52
TRADERS (SHOPKEEPERS, RESTAURANT OWNERS)	200	20	20
NGO VOLUNTEERS IN THE POC	300	30	30
MINORITY ETHNICITY	100	10	10
TOTAL	8,772	914	914

After determining that 60 radios should be distributed to youth, you can then decide how to allocate the radios across the site. Using Camp X as an example:

To ensure radios are spread evenly across the site, each block will include one Youth (18- 35) radio owners' group. Since there are 58 blocks in the site, each block will receive 1 radio for its youth radio owners group (60 radios/58 blocks=1 radio per block).

The two remaining radios can be allocated to specific youth gathering points in the site such as sports fields, community and games centers.

This map of Camp X shows the division of sectors into blocks, as well topographic features and aid facilities.

New Arrivals

When the radio distribution needs to happen in a place where there is an ongoing influx of new arrivals, the issue of how to incorporate those new arrivals in the radio distribution and in the listening groups needs to be taken into consideration. Typically there are two ways in which the new arrivals are settled into an area. Either there is a dedicated area of the IDP/refugee camp/ displacement site where new arrivals will settle in a group or the new arrivals will be spread amongst the existing population.

In the first case, the best strategy is to make sure that those new areas are re-assessed every one or two months, depending on how many new people are arriving, and that new groups are created to accommodate the new arrivals using both stratified sampling and purposive sampling methodologies. In the second case, the assumption is that the new arrivals will benefit from the already existing listening groups and that their "voices" will be heard through the already existing members of the groups. It is however important to monitor dynamics to ensure that there is cohesion amongst the old and new arrivals to the camp. If there is tension, a targeted distribution to new arrivals may still be necessary.

The Falata nomadic people were new arrivals in the Malakal PoC at the time of distribution. In order to address their pressing information needs, the Malakal team made sure to allocate radios to their group.

▸ Sampling in a Non-camp Setting

In non-camp settings, the same methods of distribution explained above can be used, but you may need to gather further data about the demographic distribution of the population in the area considered. If you are planning a distribution in a stable, non-humanitarian setting, you may consider using census data or other government records (if publicly available and reliable).

The best way to proceed with distributions in open areas, especially if these are large areas that have multiple villages/cities, is to rely on population data from NGOs that already operate in those locations. There is a good chance NGOs may already have conducted distributions of food or other Non-Food Items, and would normally have a good sense of the vulnerable groups, information providers in the community, and any public gathering points (like schools, markets, churches, etc.).

▸ Step 3. Choosing the Best Radio

▸ Power

Now that you better understand the community you are working with and their information needs, you may better select a radio that suits. Not all radios are the same. When deciding to do a radio distribution you want to have a very good idea of the type of radio that is appropriate, especially when considering location and access to electricity. One of the best ways to choose your radio is to ask for a sample before you order a batch. This will allow you to test the radios in the specific location you intend to distribute and ensure they are up to the task.

In general, there are several factors to keep in mind when selecting the radio:

FACTORS	DESCRIPTION
POWER	There are 5 main types of power sources for radio handsets: DC power (eg via mains or generator); solar (via internal or external panel); hand crank (sometimes called ‘dynamo’ or ‘kinetic’); car charger; disposable/rechargeable batteries.
WAVES AND FREQUENCIES	Keeping in mind the existing radio stations already broadcasting in the area, you will have to decide which types of frequency you want people to access with the radio: AM, FM, and/or Shortwave. Most radios will allow access to the AM/FM bands; access to Shortwave is not default in most units.
ENVIRONMENTAL CONDITIONS	You will find that certain radios are more resistant than others to weather and environmental conditions. Rain, dust, heat and movement can affect the durability and longevity of the radio.
EXTRA CONTENT	The newest portable radios on the market feature extra ways to access content. For example, the ability to connect a USB, insert a SD card or connect to a mobile phone.
EXTRA FEATURES	Some radios also have extra features you should consider, such as lighting or torch capabilities, emergency sirens, mobile phone charging or a recording function.

Size, durability, and features are all important to consider when selecting a radio that best meets the needs of the community.

If you are distributing radios in areas where people have intermittent or unreliable access to electricity, you need to select a handset that can be powered by an alternative source of energy such as solar or hand crank.

There are generally two options when considering solar powered radio handsets: internal/integrated or external solar panels. Internal solar chargers are embedded and built into the radio itself, while external panels are a separate power source, i.e. connecting the solar power source to the radio via a cable.

The advantage of an internal solar power source is that it is harder to break or lose parts and they are usually more resilient in difficult environmental conditions. However, depending on the size of the radio, internal panels can be very small and therefore produce little energy. Additionally, once the internal panels break, they are difficult to repair without replacing the entire unit. *(This unit pictured is the Lifeline Energy Polaris and includes both an internal solar panel, a hand crank as well as a USB charging option)*

External solar on the contrary can be more delicate and is prone to breakage or, as it is often not permanently connected to the handset, it can be lost or stolen more easily. One major benefit is that external panels are often larger and more powerful so they can be used to power not only the radio but also other gadgets such as mobile phones. Depending on the quality of the solar panel and the size of the radio, on average a 2W external solar panel will provide you with 6 hours of radio playtime (at medium volume) after 1 hour of charge in the sun. *(This unit pictured is the Freeplay Energy Encore Player and includes both an internal and external solar panel, a hand crank [at the back of the unit] as well as a USB and DC charging option)*

Kinetic power or hand cranks drive a generator inside the device generating power. While they can be recharged anytime, anywhere by the beneficiary, a hand crank model is not suited for people that may have mobility issues (like elders or the disabled). They also require the owner of the radio to recharge the radio regularly, which may be a barrier to use for some. Depending on the model, 1 minute of hand cranking can power the radio for 4 to 20 minutes, at high volume.[5]

Car charged radios are less common, but they allow you to plug the radio into a car's 12-volt DC plug and charge an internal battery in the radio when the car is running.

Disposable or rechargeable batteries are another option depending on the accessibility, quality and price of local batteries. If the radio distributed is only powered by batteries, it is advised to provide the unit with a set of rechargeable batteries. However keep in mind this option is only effective for populations that have common access to a power source to recharge the batteries.

Many solar radios in the market these days (including the examples pictured above) come with a combination of charging options to ensure the unit is still functional when there may not be enough sun to charge using the solar panels. Depending on the location and needs of your population, you may consider looking at models that include solar, kinetic and a DC power option.

5 See a good comparison of handsets here: http://www.toptenreviews.com/outdoor/camping/best-crank-radios/

The Freeplay Encore Primary radio (pictured below) offers an external solar panel, internal solar panel, hand crank, and rechargeable battery to enable complete independence from grid power or disposable batteries. These charging options provide different performance parameters, useful for comparison:[6]

Model: Encore™ Primary					
Power Source	Solar Panels	Cable	Battery	LED	Phone Charging
• Self-charge via crank handle. • Integrated and external Solar Panels. • 12V DC	• Integrated: 150mW polycrystalline. • External: 2W polycrystalline.	2m Reinforced cord	Rechargeable 3.6V NiMh 1100mAh. Higher capacity on request.	2 x 50,000 hours' life	5V 400mA. Standard USB charging cable, or phone tip-set

Performance Parameters (Solar performance is based on the 2W external panel in full sunlight conditions)	
Fully Charged Battery	• Fully charging the Encore Primary mAh battery will take approximately 4 hours using the external solar panel • A fully charged battery will operate Encore Primary for 30 hours on low volume and 15 hours at a higher volume • To charge the battery via Adaptor/DC will take approximately 5 hours
External 2W Solar Panel	• 1 hour in the sun provides energy for approximately 6 to 8 hours of radio playtime at medium volume • 1 hour in the sun provides energy for approximately 6 hours of light on bright setting and 12 hours on economy setting
Winding	• 1 minute winding provides energy for 45 to 60 minutes of radio playtime at low volume and 25 minutes at higher volume • 1 minute winding provides energy for 50 minutes of light at economy setting and 25 minutes on bright setting
Mobile Phone Charging	• 1 hour in the sun (external 2W panel) provides energy for approximately 10 minutes of talk time • 1 minute of winding provides energy for approximately 3 minutes of mobile phone talk time, and several hours of standby time (smart phones use more power so these will reduce) • It will take about 5 hours of sunlight (external panel) to recharge a standard mobile phone

▶ Waves and frequencies

Radio is transmitted in three different ways: Amplitude Modulation (AM), Frequency Modulation (FM) and Shortwave (SW). When choosing a radio to distribute, it is important to use your INA to discover what format trusted local broadcasters are already using. For example, if the most trusted local media provider broadcasts using shortwave, rather than the standard AM or FM, then you will need to ensure the radio you choose to distribute has this capability (most models don't).

6 Freeplay Encore Primary Product Brochure, http://www.freeplayenergy.com/aid-and-development/images/brochures/EncorePrimaryProductBrochure2014.pdf

Some radios receive shortwave signals, in addition to AM/FM. When choosing a radio for the distribution, it is important to understand what format local broadcasters are already using.

Shortwave signals can be broadcast across several thousands of kilometers (including from one continent to another in the range of 1.6–30 MHz) so it may allow your beneficiaries to access information from other countries in the region (if there are no trusted broadcasters within their own country). AM transmissions are low frequency (in the range of 520 to 1,710 KHz) and can travel hundreds of miles but often lose clarity, whereas FM is a higher frequency (in the range of 88 MHz to 108 MHz) and a clearer sound but lacks the ability to transmit over long distances. Generally speaking, in order to be heard on the radio, an FM broadcaster would need to be located in your community or city, an AM broadcaster could be as far as another state away, whereas a SW broadcaster could be as far away as a neighboring country or continent.

▸ Environmental Conditions

In general, there are three environmental factors that need to be kept in mind when buying a radio for distribution: water resistance, dust resistance and shock/movement resistance.

The first thing you need to look for is the device's International Protection rating, more commonly referred to as an IP rating or IP code. IP codes are a standard set by the International Electrotechnical Commission (IEC) to classify the degree of protection provided by the electrical equipment enclosures. An IP rating consists of the letters 'IP' followed by one or two digits. The first number in the rating code represents the degree of protection provided against the entry of foreign solid objects, such as fingers or dust. These protection levels range from 0 to 6. The second number represents the degree of protection against the entry of moisture, with protection levels ranging from 0 through 8.

As an example, an electrical socket rated IP22 (typically the minimum requirement for electrical accessories designed for indoor use) is protected against insertion of fingers and won't be damaged by vertically dripping water. Since we are talking about radio units that may be used in challenging conditions, it is advisable to look for IP ratings above IP53.

An IP code with an "X" in place of the first or second number means that a device hasn't been tested to protect against the entry of solid objects (the first number) or moisture (the second number). For example, a device with the rating IPX7 is protected from accidental submersion in 1m of water for up to 30 minutes, but it has not been tested against the entry of dust. Below you will find a chart that outlines all of the protection levels set by the IEC.

Protection from Solids

IP CODE	PROTECTION	OBJECT SIZE
0	No protection	N/A
1	Protection from contact with any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part, such as a finger	Less than 50mm
2	Protection from fingers or similar objects	Less than 12.5mm
3	Protection from tools, thick wires or similar objects	Less than 2.5mm
4	Protection from most wires, screws or similar objects	Less than 1mm
5	Partial protection from contact with harmful dust	N/A
6	Protection from contact with harmful dust	N/A

Protection from Water

IP CODE	PROTECTION	TEST DURATION	USAGE
0	No protection	N/A	N/A
1	Protection against vertically dripping water	10 mins	Light rain
2	Protection against vertically dripping water when device is tilted at an angle up to 15 degrees	10 mins	Light rain
3	Protection against direct sprays of water when device is tilted at an angle up to 60 degrees	5 mins	Rain and spraying
4	Protection from sprays and splashing of water in all directions	5 mins	Rain, spraying and splashing
5	Protection from low-pressure water projected from a nozzle with a 6.3mm diameter opening in any direction	3 minutes from a distance of 3 meters	Rain, splashing and direct contact with most kitchen faucets
6	Protection from water projected in powerful jets from a nozzle with a 12.5mm diameter opening in any direction	3 minutes from a distance of 3 meters	Rain, splashing, direct contact with domestic faucets, outdoor use in rough sea conditions
7	Protection from immersion in water with a depth of up to 1 meter (or 3.2ft) for up to 30 mins	30 mins	Rain, splashing and accidental submersion
8	Protection from immersion in water with a depth of more than 1 meter (manufacturer must specify exact depth)	Varies	Rain, splashing and accidental submersion

It is important to remember most resistance testing is normally performed in fresh water, so radios aren't guaranteed to hold up to salt water unless specifically stated by the manufacturer. Unless otherwise specified, most tests are carried out at temperatures between 15 and 35 degrees Celsius (60 to 95 Fahrenheit). Higher temperatures could also damage the radio handset.

When it comes to resistance to movement, unfortunately, there is no standard. Internews' experience suggests that you try use radios that are as **compact** as possible, with little or no removable pieces (these get lost very easily), and ideally **rugged**, or made in one solid piece.

▶ Extra Content

The newest radios on the market have several additional features such as the ability to connect to a USB flash disk or hard drive, insert an SD card or connect to a mobile phone or other auxiliary audio source. These functions can be very useful if you are interested in providing your beneficiaries with pre-recorded audio content they can play at any time, especially in situations where radio stations in the area do not broadcast 24/7.

Not all radios have these options, so you will have to decide if these features are important in the way you plan to use the radios. If you opt for a unit that has an SD card or USB capabilities, remember to check if the SD or the USB cable is included in the package or if you will have to buy it separately. If you are doing a very large radio distribution, this could impact on the cost of delivery. Also keep in mind that the SD cards that come with the radio are often of poor quality or have a very small capacity (1GB or less). So, if you plan to distribute content with the radios, you may have to purchase cards with a larger capacity to be distributed along with the radio. You may also want to consider purchasing a multi-SD card reader so that several SD cards can be loaded with content at one time. If you are planning a large distribution, this will be a welcome time saver!

▶ Extra Features

Manufacturers continue to add additional features to radios that become available on the market. Some of the common additional functions are listed below:

Light/Torch. Several radios on the market have a light or a torch embedded. Normally this function is very much appreciated by users in areas where access to electricity is limited. This feature is also very helpful for vulnerable groups such as women living alone, or students who wish to study.

Phone Charging. If the radio has a USB port, normally it is also compatible with 5V 400mA charging. On average, 1 hour in the sun (via an external 2W solar panel) provides energy for approximately 10 minutes of talk time, while 1 minute of winding provides energy for only 3 minutes of mobile phone talk time. It will take approximately 5 hours of sunlight (via an external 2W solar panel) to recharge a standard mobile phone (keep in mind smartphones are less energy efficient when powered on during charging).

Recording Function. This allows for the user of the radio to press a button and record their own voice onto the SD card. This is a very popular function for young people and children, and can be used for such activities as documenting cultural songs and stories.

Morse Code Beacon. This feature allows you to activate a Morse code beacon that flashes the embedded light in an SOS pattern, a universal signal for help.

Siren. Activating the siren setting generates a high-pitched noise from the speakers. This is great for alerting people to your location in an emergency or perhaps scaring away attackers.

Compass. This is an emergency survival feature that shows the direction you are heading.

Dog Whistle. A dog whistle feature emits a frequency beyond the range of human hearing. The frequency attracts the attention of dogs, which can help search and rescue teams find your location.

▶ Major Solar Radio Distributors

There are a number of companies that manufacture and/or distribute solar radios that suit humanitarian and development conditions. In Annex II, you will find a selection of the major companies that currently supply solar radios for the humanitarian market.[7] To help you to compare your options, these companies have provided quotes that allow you to compare costs, delivery times and unit weights. This information is intended as a guide only; do conduct your own research before choosing the radio that suits the needs of your project.

▶ Costs and Timing

Depending on the country you are working in, there are a number of additional costs you could expect. It is important to factor in shipping and transport costs (they can be very high), as well as customs clearance and other possible government taxes.

Additionally, depending on the manufacturer or distributor of the radios, it can take several months from the time of order to the receipt of the items in the distribution location. It is important to clarify estimated delivery times before you finalize your order, as well as meet with local government officials to ensure you fully understand the customs and import process. In a development or humanitarian context, import taxes for relief items are often waived by the host country; however it is important to ensure your radios qualify for this waiver and all necessary authorities are aware of the objectives of your distribution.

Depending on your plans, the difference in costs and timing can be significant as illustrated in this example: say you wanted to order 5,000 Encore Player large solar radios to deliver to a project in Juba, South Sudan. Shipping the radios (i.e. delivery by boat and road) could take up to 45 days, and would cost approximately $7,976USD. In comparison, if you wanted to deliver the radios via air, you could have the items in 4-5 days, but at a cost of $52,188USD. Saving 40 days could cost you more than $44,000USD!

Storage of the radios is also important as they are usually a highly desirable item and will need a secure place for storage before the distribution. Try to plan the distribution of your radios to occur as quickly after the delivery of the items as possible. Storing the units can not only be costly, but can open them up to the risk of environmental damage or theft.

"It is so important to factor in the component sourcing lead time, manufacturing time, transit time and time to clear goods when designing a distribution program. We will naturally do our best to help in all cases but we get asked so many times to supply goods in unrealistic timeframes. It can be crippling for an organization to have to ship by air when, with planning, they can sea freight the goods for thousands of dollars less."

– Viv Jenkins, Business Development Manager, Freeplay Energy

7 See Annex 2, List of major solar radio manufacturors/distributors.

▸ Step 4. Conducting the Radio Distribution

Now that you know a little more about your community, and you have decided what style of radio might suit these conditions, you can start to plan how exactly you will distribute the radio sets.

It's important to understand the need for *discretion* in the radio distribution process. This is to avoid big crowds of people queuing to receive radios and to avoid any possible conflict or tension that may arise from people that are not receiving a radio set.

Some of these issues can be avoided by initially meeting with the local leaders and organizations to explain to them the rationale behind the radio distribution. It has to be very clear how and why you have selected the recipients and what those people will, in turn, be responsible for (maintenance, allow others to use their radio to listen to it, etc.). Some camp settings may have already established a 'community distribution group' that works to review and provide feedback to agencies who distribute food or non-food items.

If you are also creating Listening Groups as part of the distribution, you can assign one person from each of these groups to come to a dedicated location to collect the radio set – possibly inside a building or an office so that the radio can be handed over *discreetly*. Alternatively, you could deliver the radio to the recipient in the privacy of his or her home. This method is more time consuming, but does allow you valuable one-on-one time to demonstrate the use of the radio and ensure the recipient is aware of the responsibilities that might come with their role as radio owner. It is especially important for the radio owner to understand their obligations if the radio is to be shared and they are expected to facilitate reporting and monitoring on the distribution outcomes.

There are a number of things to consider when planning your distribution:

Receipt of the radio is not associated with risk of attack or abuse	Are you distributing in a public place that could create tension with those not receiving a radio? Do you require any security to be present at your distribution? Has there been unrest at other food or non-food distributions in this location?
Special arrangements are made for pregnant women, women with small children, the disabled and the elderly	Is there shade and/or seating at your distribution point for the elderly or people with mobility issues? Do you need to have a 'fast track queue' for these beneficiaries? If the distribution will take some time, do you have water for the beneficiaries who are waiting?
Distribution does not interfere with child care or other domestic responsibilities	What time of the day least interferes with domestic duties, other community commitments or other distributions? Can you combine your distribution with another partner?
Beneficiaries are able to transport the radio home (i.e. conveniently located distribution points)	How far is your distribution point from people's homes? Is the radio heavy or complicated to carry? Will beneficiaries be able to safely return to their home from this location?

The Bentiu team loads their boda bodas with the radios to be distributed for the day.

Generally speaking, once you have selected your beneficiaries, the radio distribution will follow the following steps:

1. Beneficiaries are also informed of where to go to collect their radio handset and when;
2. Once the beneficiaries come to collect their radio, they are asked to fill in a form with their demographic information and if possible, contact information. In this instance they will also sign a statement to declare that they have indeed received the radio;
3. Beneficiaries of the radio distribution are explained how to use the radio and provided with the contact information of those who can provide assistance/ support after they have brought their radio home;
4. All forms and declarations are then cross referenced at the end of the day with the original list of beneficiaries to make sure there are no discrepancies.

Demonstrating how to use the radio is very important, and is often an overlooked step. The instructions included with the radio may be written in another language, or the beneficiary may be illiterate. To ensure recipients get the full benefit of the radio, plan to include a short demonstration when you are distributing the radio.

▶ Methods of Distribution

There are a few ways you can choose to distribute your radios:

1. Through government or local authorities (i.e. traditional religious leaders or other types of authorities).
2. Through an implementing agency (creating a partnership with another organization or tagging your distribution on to another distribution already scheduled for the same community), or
3. By yourself (using your organizations available staff and resources, or hiring additional staff),

Who actually physically receives the radio will also depend on your project plan. For example, if you wish to distribute one radio per household, then the head of the household should collect and sign for the radio. If your aim is to create listening groups, then you will need to assign a “leader” of each group to collect and look after the radio.

In stable situations, with recognized governments, you may choose to distribute through existing government structures. This is generally applied in development programs, or during emergency interventions in response to natural disasters.

To determine the appropriate distribution system in emergency conflict situations, it is essential to understand the social structures of the target population, as well as the cultural and political divisions. If the communities’ leadership is known to be accountable and trusted, you may choose to distribute the radios through existing leadership structures. However, in many emergencies this is not the case. Military leadership or armed groups, whose aim might be to control the flow of information to further political or military aims, may replace traditional leadership. In this case, it would be inappropriate to distribute through “community” representatives or local leaders. Once again, the results of your INA will give you important clues as to what might be most appropriate in your circumstances. Are the local government or local community leaders trusted, or should you perhaps look for alternate leadership structures such as engaging religious leaders?

▶ Choosing the Type of Radio Distribution System (Community Partners)

Choosing a system involves answering two basic questions:

1. Who can be trusted to deliver the radios to the recipients?

2. What resources are available to set up and run the system?

Depending on the answers to those two questions, you may want to consider the advantages and disadvantages of each type of distribution system in terms of cost (staff, materials etc.), the speed of implementation, knowledge required, and the risk of abuse:

DISTRIBUTION SYSTEM	ADVANTAGES	DISADVANTAGES
LOCAL GOVERNMENT	• Quick and efficient if local infrastructure exists • Builds local capacity • Uses a trusted local entity	• Government capacity may be limited • High cost if local infrastructure is poor • Government may have financial or political motives for controlling radio distribution
TRADITIONAL LEADERS	• Social and cultural values of population respected • Easy in initial stages of emergency and for dispersed populations • Low cost • Quick • No external registration needed	• Only effective in unified communities without internal instability or conflict • Could fuel existing social inequalities in the community • Risk of abuse if social structures have broken down or have been replaced by military leadership • Difficult to monitor
NEW GROUPS OR COMMITTEES	• Relies on existing, if new, social structures • Lowers risk of abuse that may be associated with traditional groups • Some community participation, particularly women’s representation • Self-monitoring • Low cost	• Appropriate in stable situations • Must make sure leaders truly represent communities • Resentment from traditional leadership • Need for extensive information campaigns

DISTRIBUTION SYSTEM CONT.	ADVANTAGES CONT.	DISADVANTAGES CONT.
HOUSEHOLDS	• Efficient for large, unstructured populations • Initial control over beneficiary numbers • Avoid abusive power relations and leadership • Less risk of unequal distribution • Easy to monitor	• High cost (staff, materials, time) • Little beneficiary participation • Prior household registration necessary
INDIVIDUALS	• No scope for manipulation or discrimination • Self- targeting • Easy monitoring	• Extremely high cost (staff, materials, time) • Creating crowds, drawing attention to beneficiaries, potential for violence • Security risks

▶ Choosing the Type of Radio Distribution System (NGO Partners)

Alternatively, you can rely on national and international NGOs that are already present to directly implement the radio distribution. In these cases, you can choose to establish formal agreements between the distributing agency, the NGO and the government, defining the method of distribution as well as reporting and monitoring requirements. Generally speaking, these agreements should specify:

- The method of distribution to be adopted;
- Requirements for monitoring both process and impact; and
- Reporting requirements.

If you decide to make agreements with more than one agency or NGO for implementing the distribution, it is essential that you develop a common distribution strategy for all implementing agencies to ensure that resources are allocated effectively and reporting requirements can be met with ease. Important criteria for selection of an NGO implementing partner include:

- Past experience of radio or other distributions;
- Past experience and thorough knowledge of the geographical area of operation;
- Capacity and ability to mobilize qualified and experienced staff quickly; and
- Neutrality and impartiality.

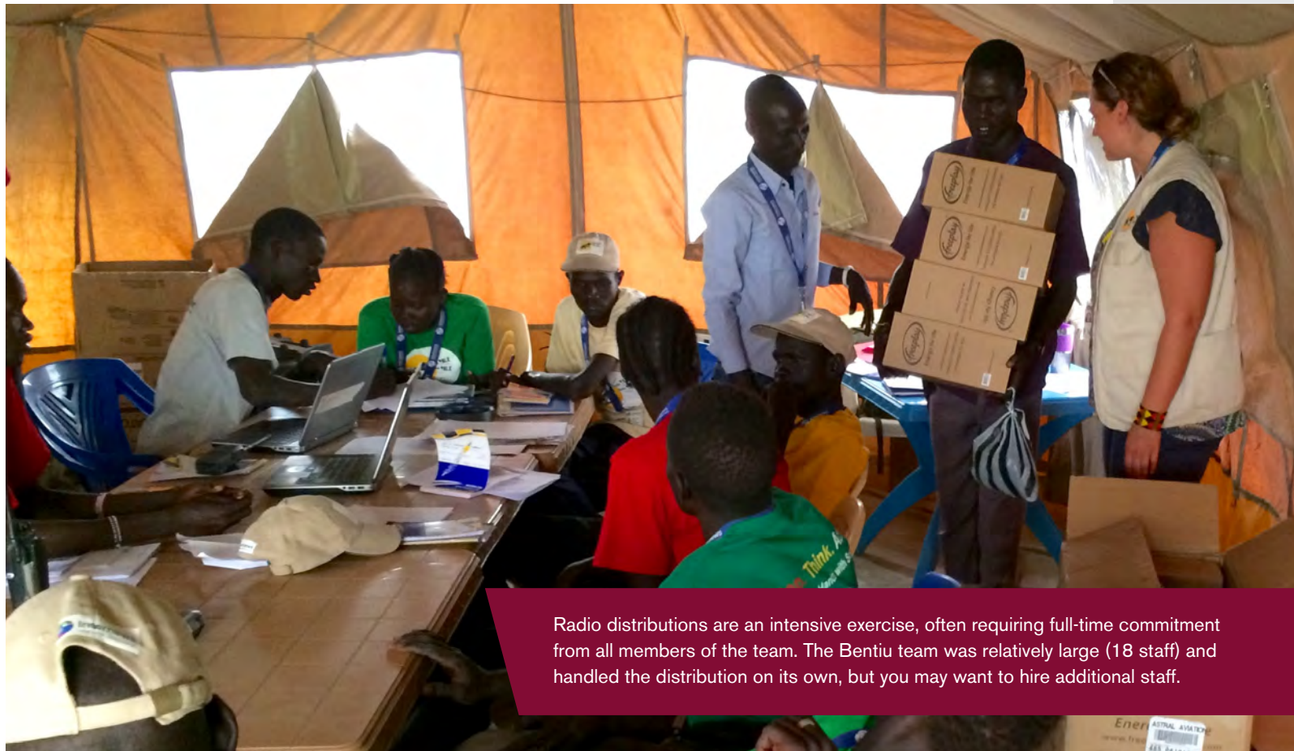
▶ Distribution Cycle

Radios are usually distributed every six months to a year depending on population dynamics and the durability of the radio. In conflict situations, you will want to take into account the risk associated with carrying/owning information . The distribution cycle also depends on the information needs of the community, the context, and information means already available. For dispersed or mobile populations, it is usually most appropriate to distribute on a 6-month basis. In refugee situations or other more static camp-based populations, radios can be distributed once a year.

While a one-off distribution to a community can have an immediate impact, depending of the quality of the radio and the living conditions of the beneficiaries, you could expect to see up to a quarter of the radios damaged or broken within the first year. If further distributions are not possible due to time or funding restraints, you could consider withholding a small number of radios to distribute to key community information sources (such as religious leaders and teachers) if their radio is damaged.

▶ Distribution Points

As discussed earlier, you may choose to individually distribute radios to community members within the privacy of their own home. If this is not possible due to staff or time constraints you may need to choose one or several central distribution points. If you choose to ask people to come to a distribution point, make sure that these points are located as close to beneficiaries as possible. Malnourished populations or populations living in conflict settings may not be able to move at all and may need radios transported directly to them. For food distributions, for example, UNHCR recommends that the distance beneficiaries have to travel should not be more than 5 to 10 km for dispersed populations. Keep in mind that as the number of distribution points increase, so do costs in terms of staff, transport, and equipment.



Radio distributions are an intensive exercise, often requiring full-time commitment from all members of the team. The Bentiu team was relatively large (18 staff) and handled the distribution on its own, but you may want to hire additional staff.

▶ Distribution Staff

The type, and number, of staff needed depends on the distribution system. For example, a community-based distribution system requires less salaried staff than an agency-managed system. The staff required may include:

- Distribution project manager[8]
- Community focal point
- Distribution monitors
- Distribution supervisors and logistics officers
- Distributors (in case of agency-managed distributions)
- Drivers, storekeepers, security guards

▶ Recordkeeping & Accountability

Once you decide the distribution system, distribution points, and select your distribution staff, you can allocate your radios accordingly.

When distributing the radio, it is important to have a clear record[9] of who received the radio set to help you balance your books and to provide clear and transparent accountability to the community and to your donors. Each radio recipient should sign for the unit and provide their contact information, plus basic demographic information (age, gender, location and specific groups if any).

This information will be used over time to check-in with the recipients, monitor how and if they are using their handsets, and register when radios are stolen or broken.

In a best case situation, radios should be tagged with a number/tracking ID and matched with the recipient record, to aid future research, monitoring and evaluation, or impact assessment activities.

▶ Coordination and Management

If your radio distribution involves a range of actors, like the government, UN agencies, NGOs, and local partners, in addition to the beneficiaries themselves, make sure you establish clear guidelines to ensure the process runs as smoothly as possible. Indeed, problems with the radio distribution can be caused by inadequate institutional and logistical capacity, poor management, or other coordination and management factors that have little to do with how beneficiaries are engaging with the radios. Some of the issues to keep in mind are:

- Ensure you meet with community leaders to clearly inform them of the planned distribution (even if they will not be playing a role in the distribution themselves). Firstly, this is to respect their authority in the community you are working within, and to determine whether your plans clash with other community events. Secondly, radios are used to source information, and information is power. If an NGO comes into the community and starts distributing radios without explaining their objectives and methods, this might create mistrust with the community and its leaders.

8 For a sample Radio Distribution Manager Job Description, please see Annex 5.

9 For an example of a basic Radio Distribution Date Collection Sheet, please see Annex 3.

- Clearly communicate with the recipients of the radios the appropriate time, location of the distribution and what identification they will require to receive the radio.
- Depending on the environment, you may also need to inform NGO or UN Camp Management, or the NFI Cluster, of your planned distribution.
- Ensure the distribution team is fully aware of all project plans and is appropriately trained and resourced to fulfill their tasks.
- Establish a clear method of receiving and responding to complaints and feedback relating to the distribution and the radio units themselves.
- Establish clear security protocols to follow if tension or unrest interrupts the distribution.

To improve the effectiveness of emergency interventions and encourage better co-ordination, a Memorandum of Understanding (MOU) can be drafted to establish roles and responsibilities for the radio distribution.[10]

▶ Step 5. Monitoring and Reporting on Distribution

The aim of monitoring is to assess on a regular basis whether the objectives of the radio distribution are being achieved. This includes the efficiency, effectiveness, and timeliness of radio delivery to its intended population. Monitoring should track whether the radios are effectively reaching the intended number of beneficiaries and achieving their intended impact on information access and decision-making processes. However, depending on the situation of the local population – static or moving – you may not be able to do a post-facto monitoring effectively.

Your distribution objectives, discussed in Step 1, will help to determine the most appropriate form of monitoring and evaluation. If you have conducted an Information Needs Assessment at the beginning of the process, this can also be repeated as a handy tool to monitor the impact your distribution has had in terms of access to information. Undertaking the process of repeating the INA is also a great opportunity to speak to the recipients of the radios to seek feedback on the overall distribution process, the quality of the radios as well as whether they are being used effectively.

▶ Level of Monitoring

The level of monitoring required depends on the distribution system adopted, the quantity and quantity of radios distributed, and donor requirements. You may choose to adopt the use of independent monitors during the distribution itself. Monitors are often used in large scale humanitarian distributions to ensure clarity in the distribution process and accountability to the affected population.

Monitors may be used to ‘double check’ the number of radios being distributed, monitor security standards implemented during the distribution and ensure the distribution adheres to Sphere

10 For a sample Radio Distribution MOU, please see Annex 6.

For monitoring purposes, it is important to record beneficiaries' names and contact details.

distribution standards for Non-food items.[11] Monitors need:

- Clear and agreed upon operational principles between UN agencies, NGOs and ruling authorities;
- Encouragement to report abuses (if necessary confidentially), knowing this will elicit a response at higher levels.

▶ Process or Systems Monitoring

Smaller distributions may not require independent monitors, however it is important to ensure there is a clearly designated person during the distribution to respond to questions or complaints and that all staff collect feedback during the process to identify any gaps in procedure.

The aim of process monitoring is to make sure that the radios are distributed to the intended beneficiaries, and also ensure that you learn from challenges encountered during the distribution to adapt the next one. Monitoring your distribution will help you identify bottlenecks or problems at different levels of the distribution process. However, keep in mind that monitoring is not limited to information collection for pure recordkeeping; the most important aspect of monitoring is analyzing and acting on the information collected, making sure that the process improves over time and that the distribution is conducted safely and fairly.

Process monitoring includes the monitoring of:

- Radio supply and delivery;
- Radio storage and handling;
- Quantity of radios distributed, and the number of actual vs. planned beneficiaries;
- Inequalities in distribution.

▶ Distribution Reporting

For donors and accountability purposes you may want to make sure that the Distribution Manager compiles final reports for each distribution cycle or another agreed period (e.g., monthly). [12] The following minimum quantitative information is required:

- Number of actual beneficiaries for the particular distribution period (checked against the number of registered people in the area);
- Location, gender, and age of the beneficiaries;
- Opening stock count at the start of the distribution period;
- Quantity of each radio distributed, lost, damaged and closing balance;
- Any problems encountered and methods used to address these issues;
- Any proposed future distributions and rationale;
- If possible contact information to allow for ongoing monitoring.

11 For more information on the Sphere standards in relation to the distribution of non-food items: http://www.spherehandbook.org/en/how-to-use-this-chapter-2/

12 For a sample Radio Distribution Report, see Annex 4.

▶ Ongoing Impact Monitoring

No matter what your objectives are for the distribution of radios within your community, it is important to remember that the job is not finished just because the final radio is accounted for. Whether you hope to give the community better access to information via existing media broadcasters or develop your own hyper-local Humanitarian Information Service, it is important to find out whether the radios are being used in the way that you had planned.

Collecting clear contact information for each radio recipient is important to track the use of the radio at regular intervals such as 3, 6 and 12 months after distribution. You might choose to develop radio Listening Groups to provide your program with regular, ongoing feedback on a variety of issues, or you may randomly choose a number of beneficiaries to visit to find out how the radio is being used (i.e. is it being used at all? Has it been stolen or traded for something more useful to the family?), whether it is still operating well (or has it been easily damaged?) as well as noting any changes in the individual/family/community decision-making processes as a result of a broader access to information.

It is also important to monitor the social impact of the distribution system adopted. Beneficiary views should be elicited on whether the system adopted was appropriate. For example, has a distribution by an external agency undermined existing community structures or caused conflict? Did a community-led distribution ignore vulnerable groups in the population?

If women are intended to be the recipients of radios, the percentage of women amongst those coming to collect radios should be monitored. If women are not attending the distribution, the reasons for this should be investigated. Women should be interviewed specifically about their views on the distribution system and how it impacts on their ability to care for children and perform their other domestic responsibilities.

In camp-based populations or any community affected by a humanitarian crisis, it is important to remember that the radio recipient may not even stay in your target community after the distribution. Insecurity, family reunification or a number of other factors may encourage the recipient to relocate with their family. It may still be possible to contact the recipient if mobile phone networks are operational and gather important information, but don't be disappointed if you can't account for every single unit 3 months after the distribution. Whether they remain in your target community or not, your radio is still providing them with a window to access important information wherever they may be.

▶ Household Visits and Post-Distribution (or end-use) Monitoring

Household visits are necessary to determine whether there are some households that have been left out of the distribution altogether or whether some households or groups have been under- or over-considered. You can do this using a random sample. However, with knowledge of social and political divisions within the beneficiary population, you can also identify vulnerable groups that are likely to have been left out of distribution. When doing targeted visits to households of the vulnerable group, you can also collect information on the number of radios received, the use of the radios, suitability to the local environment and questions relating to the impact of radio use. This information can then be used to determine whether an additional allocation of radios may be necessary.

Annexes

Annex I: Malakal "Describe the Population" Exercise

This is one example of how to describe the target population (explained in Step 1). This description of the target population will help you to determine the most appropriate sampling and distribution methodology.

Since December 2013, the Malakal Protection of Civilians (PoC) site and the surrounding area has continued to witness major population movements. These movements have been both in and out of Malakal city and the PoC. In March 2016, a radio distribution was undertaken by the Internews Humanitarian Information Service Boom Box Talk Talk project. One of the first activities to be implemented was the description of the target population.

1. Mobility: the Falata Nomads, Pigi County IDPs & Wau Shilluk IDPs

March to August 2016 saw a sharp spike in the number of new arrivals in the Malakal IDP camp. This target population was highly mobile with regular and easy movement in and out of the POC. The idea was to ensure that these highly mobile groups received radios and better access information.

The target population was divided into three main ethnic groups as follows:

MOBILE POPULATION	POPULATION	RADIO DISTRIBUTION APPROACH
FALATA NOMADS	500 (men, women & children)	Purposive Sampling
PIGI COUNTY IDPS	7,000 (men, women & children)	Purposive Sampling
WAU SHILLUK IDPS	17,000 (men, women & children)	Purposive Sampling

2. Specific Information Needs: a Case for Youth and Women in the Malakal PoC

The population of youth in the Malakal PoC is relatively high compared to the elderly. The distribution plan focused on targeting the youth (both male and female) in all the three PoCs. The decision of how many radios to distribute was guided by team judgment that also took into account the profession of the youth beneficiaries. For example, the team identified 30 youth traders working in the PoC market. These traders cover a cross-section of the target population, including Darfurians and South Sudanese ethnic groups. This target population is important because they represent a very specific sector of the population that may have very different information needs due to their area of origin. Additionally as they operate in communal space the radio may be accessed by a higher number of people.

3. Demographics Matter; Mother & GBV Support Groups

The distribution process identified community groups for women, mothers, youth, associations for the elderly and disabled, businessmen etc. For example, the team identified 51 mother support groups (totaling 510 members) that had been established and supported by an INGO. They were identified as a vulnerable group that needed to be specifically targeted because of their lack of access to information. Other groups with specific information needs included the community police and hygiene promoters.

4. Religious Leaders and Civil Servants as Entry Points for Distribution in Malakal

The power structure in Malakal was largely artificially created by camp management to better engage with the communities in the camp. The Malakal team observed that religious leaders and former civil servants were a trusted source of information for the local community. These people were useful resources to inform the radio distribution as well as being important partners in disseminating messages of peace and community education.

Annex II: List of solar radio suppliers

Eton

The American Red Cross has teamed up with energy company Eton to develop a range of durable solar and hand-crank radios targeted towards American emergency response.

Website: http://www.etoncorp.com/

Products: Most models are equipped to receive NOAA National Weather Service alerts, will charge your mobile phone and some units have an auxiliary input to connect other audio devices.

Freeplay Energy

Freeplay Energy designs, manufactures and supplies a number of solar-powered products, including radios for consumer, emergency preparedness, and humanitarian purposes. Internews has used their "Encore Player" large groups listening radio in several sites around South Sudan.

Website: http://www.freeplayenergy.com/

Products: Freeplay Energy sells solar and dynamo radios and currently stocks a range of small personal (e.g. Cara radio) and large group listening solar radios (e.g. Encore Player) with a variety of lighting, mobile phone charging and alternative power options.

Price: The unit price ranges from $16 (Cara) to $50 (Encore Player). Prices vary depending on number of units ordered.

Delivery time: Freeplay ship their radios from Hong Kong, and shipping and clearance times depend on your location. For Juba, South Sudan, air freight shipping from Hong Kong is estimated at 4 to 5 days, and sea freight shipping (overland from Nairobi) is estimated at 45 days (not including time required for customs clearance). Freeplay offers freight as a non-profit service via third-party global forwarders.

Lei Shine

Lei Shine is a good example of the multitude of manufacturers of solar radios coming from China. There are a number of suppliers online and a quick google search will no doubt bring up a multitude of options of varying quality.

Website: http://www.cnleishine.com (Chinese) http://www.ecvv.com/company/solarpanelsly /index.html (English)

Product: solar dynamo radio with cell phone charger LS-811

Price: $12-16USD per piece (minimum order of 50).

Lifeline Energy

The social enterprise Lifeline Energy is a registered charity in the US and South Africa providing solar radios and MP3 players to humanitarian and development projects. The organization does not sell products to commercial retailers. The organization partners with international aid organizations, in-country NGO partners, businesses and UN agencies to implement education and information projects and respond to humanitarian emergencies.

Website: http://lifelineenergy.org/

Products: Lifeline manufactures three smaller personal solar radios and two large group listening radios. The Lifeplayer MP3 player has the option of being preloaded with 128GB of educational material in any language. The Lifeline MP3 and the smaller-sized Polaris Plus have an added microSD card slot to load additional content.

Price: Varies on type of radio, features and accessories. From $14USD to $55USD per unit.

Delivery Time: Lifeline's radios are available to dispatch almost immediately depending on the number of units ordered. If they need to be manufactured to specification or are a large number of units, manufacturing time is anywhere from two to eight weeks. You will of course need to consider shipping and clearance times depending on your location.

Onemi

The Onemi radio is a cheap, light solar radio that is named after the Chilean National Emergency office and was designed to be put in emergency "grab bag" kits in Chile. While it is nowhere near as durable as some of the other options in the market, this radio is lightweight which makes it easy to carry when communities are displaced and much, much cheaper to ship as it weighs only a fraction of the more durable radios.

Website: http://www.shackletongroup.com/es/campanya/onemi-radio

Product: At the time of writing, this radio is not yet available for purchase. However, the number of design awards they have won suggests it will not be long until they are readily available and highlight a very different kind of rapid response disposable solar radio coming into the market.

Solarway

Solarway is a company that manufactures a variety of solar products for personal and humanitarian relief activities. They have offices in Dubai, South Africa and Nigeria.

Website: http://www.solarway.com

Products: Solarway currently only manufacture one solar powered radio model. The unit includes a solar charged LED light source, however it cannot be used for charging mobile phones and has no capability to play USB/SD card content.

This list includes a few of the common radio manufacturers, and is not comprehensive. This information is correct as of February 2017 and is intended to be used as a guide only.

Annex III: Simple Data Collection Sheet for a Radio Distribution

Radio Distribution Signing Sheet

Date: _____ Distribution Supervisor: _____

Location: _____ Distribution Officer: _____

NAME	AGE	M/F	LOCATION	CONTACT	TIME	SIGNATURE	COMMENTS
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							

Annex IV: Radio Distribution Report

(Note: This is not an official report relating to an actual distribution, but rather an illustrative example to help guide a reporting format.)

Radio Distribution and Listening Groups

Summary

The first phase of the [location] radio distribution is now complete and 1,407 of the 1,984 radios allocated to this project have been distributed inside the PoC to residents, community groups and NGOs. Radios were distributed between 22nd of February and 18th March 2016. Using the minimalist approach, the distribution aimed to reach 10% of the camp population. The team took 10% of the population of each block and then divided that figure by 10 to form 10-person listening groups. This determined the number of listening groups in that block and the number of radios to be distributed.

As the population within the PoC is still in a state of flux, the remaining radios will be held in preparation for a future distribution. This distribution will also be complimented by a larger distribution of 2,000 small solar radios by UNDP in April.

Overall Distribution breakdown:

	NUMBER OF RADIOS
Community Allocation – Minimalist allocation	918
Organized Community Groups and leadership structures	277
National and International NGO's	175
Staff allocation	18
BBTT Listening Groups	13
Broken Radios	6
TOTAL DISTRIBUTION	1,407
REMAINING RADIOS IN STORAGE	577
TOTAL RADIOS	1984

Community Allocation:

LOCATION	NUMBER OF RADIOS
Sector 1	109
Sector 2	102
Sector 3	162
Sector 4	132
Sector 5	188
Old PoC Sites	225
TOTAL	918

Organized Community Groups and leadership structures:

GROUP	NUMBER OF RADIOS
Sector 1 High Committee (Community Leadership)	5
Sector 2-5 High Committee (Community Leadership)	20
Women's Leadership Council	15
Youth Leadership Committee	12
High Court Sector 1-5	13
Dispute Resolution Committee	5
Community Watch Sector 1-5	11
Market traders (Sector 2&3)	21
Elders Association	10
Women's Associations	32
Youth Discussion Groups	28
B-Fun (youth) Music Association	12
Cultural Music and Dance Association	14
Disabled and Vulnerable Residents Association	55
Widows Support Group	12
Interfaith Committee	27
Upper Nile Primary School – Teachers Association	8
Adult Vocational Trainers	12
PoC Games Centers	4
TOTAL	277

National and International NGOs:

ORGANIZATION	NUMBER OF RADIOS
MSF Hospital	8
CORPHAS – Child-friendly Spaces	7
IOM Water Point Attendants (Sector 2-5)	45
Concern Water Point Attendants (Sector 1)	11
Mercy Hygiene Promotors	18
South Sudan Red Cross (SSRC)	2
IOM Camp Management (Information Centers)	5
UNPOL Detention Center	4
IOM Youth Sporting/Drama Groups	13
Non-Violent Peace Force Protection Volunteers	15
UNHCR Protection Desks	5
IOM Psychosocial Support Centers	12
Education Cluster – Intersos, Mercy Corps, World Relief, UNICEF	7
World Food Programme – Food Distribution Attendants	5
TOTAL	175

BBTT Listening Groups:

LOCATION OF GROUP	NUMBER OF RADIOS
Sector 1, Block 4	1
Sector 1, Block 10	1
Sector 1, Block 7	1
Sector 2, Block 3	1
Sector 2, Block 6	1
Sector 2, Block 12	1
Sector 3, Block 5	1
Sector 3, Block 8	1
Sector 4, Block 2	1
Sector 4, Block 13	1
Sector 5, Block 4	1
Sector 5, Block 8	1
Old PoC 6	1
TOTAL	13

Broken Radios:

Some of the radios seem to have a problem with volume. The radio appears charged however the speaker does not work (in radio or SD card mode). There has only been a small number (2) returned with this problem so far, but it's something to be aware of. Four staff members also complained that the external solar in their unit was not working; the solar from 4 functioning kits were taken to replace them.

TOTAL = 6

Future Distribution Planning:

Population relocation is ongoing in various sectors of the POC. Once the relocation is complete, additional distributions will be done as needed to ensure optimal coverage of all sectors. Additionally, the High Committee leadership in Sector 1 and Sector 2-5 are due for reelection in coming months so a new allocation of radios may be required to service the new committee members.

The [organization] team has also formed dedicated listening groups in order to better distribute the program, collect vital feedback on programming and give the community greater access to participate in the project. As the multiple SD card read/write devices have now been purchased, some of these remaining radios should be allocated to increasing the number of dedicated listening groups within the POC site.

Annex V: Job Description for a Radio Distribution Manager

Scope of Work

Radio Distribution Manager

Supervisor: XXXX

Time of deployment: XXXX

Location: Country XX, Location XX

Background

Internews Network is an international media development organization based in Arcata, CA and Washington, DC whose mission is to empower local media worldwide to give people the news and information they need, the ability to connect, and the means to make their voices heard.

Internews has been working in South Sudan since 2006 to establish community radio station across the country, and to train South Sudanese journalists to operate them. We are also actively working to meet the critical information needs of South Sudanese communities who have been impacted by the recent conflict, through a unique audio service in the Protection of Civilian sites (POCs) as well as through setting up emergency radio stations.

Internews is planning to distribute 30,000 solar wind up radios across the country and specifically in the areas where Internews has built or will build community radio stations.

The Radio Distribution Manager

The Radio Distribution Manager will provide overall management and support to the Internews Radio Community and Humanitarian Information Service teams for the distribution of 30,000 solar radios across South Sudan. The position will contribute to the development of the radio distribution strategy; initiate and lead on radio ownership assessments; ensure the quality of the distribution carried out and related reporting and documentation; and lead on capacity building of national staff for the caring out of radio distributions in the future. The role is for 6 months and will be based 50% of the time in South Sudan with frequent travels to all field locations; and 50% remotely. Key areas of responsibilities are:

- Lead on radio ownership assessments in coordination with other external agencies working in the field locations, ensuring assessment findings are documented;
- On the basis of these assessments design and construct an appropriate response plan (both programmatic and awareness) to meet people's basic information needs through the radio distribution;
- Contribute in development and/or review of previous assessments done by Internews and other agencies and design a sampling system to be used for the radio distribution assuring that all demographic are taken into consideration, including vulnerable groups;
- Prepare a detailed operational plan for the radio distribution;
- Lead the planning and delivery of the radio distributions for Internews;
- Update and edit the already existing draft of the Internews Radio Distribution Manual to produce the final version for publication – including check-lists, sampling methodologies; and lessons learned;
- Create and test beneficiary targeting criteria for the radio distribution, ensuring appropriate documentation is in place regarding distribution lists and beneficiaries;
- Design post distribution assessment tools to measure the appropriateness of distributed items and their use;
- Identify program supplies needs and coordinate with the Operations team to put in place a sensible phased distribution plan for the delivery of the radios to the proposed locations;
- Work with Forcier Consulting and the Internews Monitoring, Evaluation, Research and Learning (MERL) department to design a research project aiming to assess the use and locations of the radio distributed over the course of the iStream Project (2 years);
- Together with the MERL department develop tailor made MERL plans and tools for tracking the progress, outputs and outcomes of the radio distribution, and enhancing accountability to beneficiaries. In doing so, ensure that the plans and tools are effectively understood, used and reports are produced by implementing staff members over time;
- Ensure the timely production of project reports and ensure the qualities of these reports for submission to donors;
- Produce technical documents and reports meant to inform Internews staff and managers internally and improve the quality and impact of the radio distribution intervention;
- Ensure that the minimum standards of humanitarian relief are maintained in accordance with the Sphere Charter and Red Cross Code of Conduct in the radio distribution planning and implementation;
- Ensure that Internews' work is coordinated with efforts of other agencies operating in the areas of distribution, and participate when needed in the Interagency Coordination forums, ensuring the specific needs of vulnerable groups are being addressed;
- Take steps to document lessons learned for wider dissemination;
- In collaboration with MERL colleagues, feed in learning, experiences and evidence to relevant global advocacy objectives;
- Identify opportunities and material to contribute to communications and media work related to the radio distribution.

Qualifications and Experience:

- A suitable qualification in relevant subjects
- Experience in the design and implementation of NFI, Food or radio distributions
- At least 5 years' experience working in the relief sector with a recognized international organization. Ideally some of this experience will have been in an emergency situation
- Experience in Radio, NFI or Food assessments, program design, project management and evaluation
- Experience of community mobilization and distribution
- Ability to write clear and well-argued assessment and project reports
- Demonstrated monitoring and evaluation skills
- Experience of and commitment to working through systems of community participation
- Good understanding of Communication with Communities (CwC) principles and Media Development
- Excellent communication skills

- Proven capacity to supervise, train and coach national staff
- Computer literate
- Fluency in written and spoken English
- Commitment to and understanding of Internews' aims, values and principles
- Ability and willingness to travel to hard to reach locations

Desirable

- Language skills in Arabic
- Experience or knowledge of working and living in relevant regions/contexts

Annex VI: MoU for a Radio Distribution

RADIO DISTRIBUTION FOR XXX GROUP

[ORGANIZATION 1] AND [ORGANIZATION 2] PARTNERSHIP

Background

[Organization 1 background information]
2 paragraphs

[Organization 2 background information]
2 paragraphs

Org 1 – org 2 Partnership

Internews has been conducting radio distributions in the [location], as part of its mandate to support local communities in accessing information to make better-informed decisions. The radio distribution in [location] has led to the creation of listening groups that meet on a weekly basis to listen to [radio] programs and provide feedback to the community correspondents on the content, the format and the relevance of the information provided. In this regard, [radio] also acts as a link in between the humanitarian community and the residents of [location], reporting feedback on aid delivery back to humanitarian organizations to support and inform their work.

The [organization project] will cover critical topics such as existing aid services, health issues, GBV, WASH, livelihood opportunities and relocation that will contribute to supporting the effectiveness, transparency and accountably of aid efforts. The audio programs will feature different elements such as humanitarian bulletins, Q&A between aid officials and community members, feature stories explaining important issues, short drama segments featuring camp-life situations and humanitarian messages.

Under this partnership Org 1 project will:

- Provide XXX radios for XXX beneficiaries;
- Support XXX members in explaining to the recipients of the radios the purpose of the donation and the listening group mechanism;
- Assign one information officer to each committee as the reference point to collect feedback and information from the humanitarian community;
- Produce a weekly program, coordinating with XXX and XXX cluster about the content;
- Work with XXX cluster to produce, when necessary, Public Service Announcements (PSAs) to be broadcasted on the radio;
- Use the feedback from XXX beneficiaries to improve their programming, and give voice/visibility to XXX beneficiaries.

Under this partnership Org 2 will:

- Prepare the distribution plan and provide it to Org 1 for feedback;
- Carry out the physical distribution;
- Collect for Org 1 the names, surnames, age, location and ethnic group of the beneficiaries of the radio distribution and, if available, phone numbers. One owner of a phone (if applicable) will be the “Radio Focal Point”;
- Support [radio] in their weekly program when requested and when available;
- Receive the feedback from the community via Org 1 information officers, and work with Org 1 to respond to the feedback provided by Org 1 staff.

The radios distributed by Org 1 will be the communication channel between humanitarians, Org 1 and Org 2 and the community. Org 1 and Org 2 believe that this important tool will allow households to have better, reliable and targeted information. The feedback component will also allow both Org 1 and Org 2 and other humanitarian organizations to improve their programming and to respond to important information needs from the community in a timely manner.

Both Org 1 and Org 2 will carry out, one to two months after the radio distribution, a series of listening group discussions with the recipients of the radios to assess the impact of the program.

Privacy and Security disclaimer: *Under no circumstances, Org 1 is allowed to share the personal information of the beneficiaries of the radio distribution with anyone else, except for the purposes of this project and for its own Monitoring and Evaluation purposes. Org 1 will save all personal information collected during this project securely to prevent any misuse.*

About Internews

Internews is an international non-profit organization whose mission is to empower local media worldwide to give people the news and information they need, the ability to connect and the means to make their voices heard.

Internews provides communities the resources to produce local news and information with integrity and independence. With global expertise and reach, Internews trains both media professionals and citizen journalists, introduces innovative media solutions, increases coverage of vital issues and helps establish policies needed for open access to information.

Internews operates internationally, with administrative centers in California, Washington DC, and London, as well as regional hubs in Bangkok and Nairobi. Formed in 1982, Internews has worked in more than 90 countries, and currently has offices in Africa, Asia, Europe, the Middle East, Latin America and North America.

Internews Network is registered as a 501(c)3 organization in California, EIN 94-302-7961. Internews Europe is registered in England and Wales as a Charity no. 1148404 and Company no. 7891107. Internews Network and Internews Europe operate cooperatively with independent boards of directors.

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This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of Internews and do not necessarily reflect the views of USAID or the United States Government.