



# POLICY BRIEF

COMMUNICATION STRATEGIES IN THE RNR SECTOR  
– TARGET AUDIENCES, MESSAGES, CHANNELS, AND  
MONITORING UPTAKE AND IMPACTS

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## POLICY MESSAGE

Since 1990, information and communication technologies (ICTs) such as televisions, mobile phones, and the internet, have gained popularity amongst the Bhutanese population, with over 80 percent of Bhutanese households regularly accessing ICTs. **Mass media and social networking** have changed the way the people of Bhutan work and live.

Given that many villages are remote and difficult to access due to Bhutan's mountainous terrain, these ICT tools are recognized as amongst the most **critical communications methods** that can channel key messages from the Ministry of Agriculture and Forests (MoAF) and related organizations, aiming to reach rural households and farming communities.

In the RNR sectors, MoAF has strengthened its technology infrastructure and built-up its capabilities to disseminate information, by establishing the **Information and Communication Technology Division (ICTD)** as part of the Directorate of Services in MoAF. ICTD is responsible for providing communication services, especially those focused upon messages directed at farming households. MoAF officials and their stakeholders increasingly use these to channel direct messages from these central bodies down towards local levels, which are expected to be read and acted upon by a wide range of rural information recipients.

### INSTITUTIONAL ISSUES FOR ICTD

- Lack of **human resources** and the **limited technical capacity of staff**. ICTD still lacks communication experts, and MoAF officials are not yet sufficiently trained in **community-based communication approaches**. The RCSC has put in place restrictive policies on recruitment, which has limited the reach of structural change.
- Similarly, other MoAF departments, related Government bodies, and non-government organizations are characterized by a significant lack of technical capacity, especially in **information management**. MoAF and ICTD lack a **database server** that is sorely needed to capably link MoAF and ICTD central offices to MoAF field offices.
- The existing ICT infrastructure is outdated, with **few internet service providers in rural areas**. Much of the existing IT equipment suffers from a **lack of resources for Operations and Maintenance**.
- Key agricultural and RNR messages are **infrequently disseminated** via internet platforms, phone messages, print and by media such as TV and radio programs. ICTD needs to **build relationships with suppliers of local content**, that enables ICTD's experts to feed in relevant information for farmers, that is then promoted by a diversity of media agencies.
- A significant proportion of rural target audiences are illiterate and may also be unfamiliar with managing smartphones, computers, and their software. **Poor digital literacy** is still observed amongst the users of most of the Community Centers, that were set up to increase villagers' access to internet services. Rural

communities are beset by **erratic power supplies**. Outreach to date has mainly been to the urban and peri-urban areas.

- **Budget constraints for communication work at ICTD** and other agencies lead to numerous deficiencies, such as a lack of resources for training and for capacity-building events. In particular, MoAF has been unable to keep pace with demand for **evidence-based statistics** on the results of its communications and outreach efforts.

Source: EU-TACS (2020) *Study on Communication Strategies for RNR Sector for ICTD*

The **key challenges** facing ICTD are related to methods and systems for improving the communication of best-practices from within the renewable natural resources sector, to better reach target audiences. These are shown in the Box below:

#### FOUR CORE ICTD CHALLENGES:

- (1) **Institutional challenges at ICTD**, in its role as a hub for RNR communication.
- (2) **Weak dissemination linkages** between researchers, extension workers, rural communities, and farming households. ICTD and MoAF have not yet established **information systems** between key local and central level information actors. These relationships would **reliably generate key material and relevant content** about topics such as: market prices; pests/diseases; changes in MoAF policies and laws; seasonal forecasts or extreme weather warnings; and information that promotes the key available farming technologies that – when adopted – can increase the resilience of farm systems and households.
- (3) **Lack of capabilities across the sector to provide simple e-communication technologies** relevant to farmers, and are favored by them, and cost-effective.
- (4) Significant difficulties in **assessing the uptake of messages**, and the impacts of communication on target audiences, due to the lack of a robust M&E system for communications within the ICTD.

The key objectives for an effective and robust ICT strategy that were identified are that:

- *The Rural Communications System must provide critical, timely, and sustained flows of information and messages.*
- *The communications system must account for various audiences, including policy-makers, donors, project implementing partners; national and local institutions; farmers; extension service providers; media agencies; and private-sector input and technology providers.*

As a result of the diagnostic analysis, there is an urgent requirement to generate and adopt an effective “**Communications Strategy and Action Plan Document**” and put this into operation to improve the effectiveness and efficiency of MoAF’s RNR information and communications services.

## DRIVERS FOR COMMUNICATION STRATEGIC DIRECTION CHANGE

The four key communication change themes that need to be addressed by the RNR sector when considering communication strategies are:

### ELEMENTS OF A ROBUST AND EFFECTIVE COMMUNICATION STRATEGY:

- (1) **Target groups:** which specific audiences do we need to reach, to ensure improved practices for better management of local renewable natural resources? How do these then lead to higher farm productivity, and the sustainable adoption of appropriate technologies?
- (2) **Ensuring the relevance of the messages and stories** that are to be disseminated. These messages need to be carefully adjusted to meet the specific information and capacity-building needs of specific information recipients. Actors within **information systems** need to develop approaches for the ongoing generation of insightful message content. Messages, or sets of statements, must be conveyed to ensure that the critical problems and issues in the renewable natural resources sector are addressed. The **expected responses of target groups to delivered messages should be supported**, in ways that increase the effects of the received information. The value of information should be judged by its **effectiveness in leading to tangible local benefits**.
- (3) **Communication channels:** that ICT channels selected for disseminating information must be up-to-date and effective. ICTD must foster a robust information system that provides information packages that are suitable and easy to access by target audiences.
- (4) Monitoring and evaluating of communication processes, systems, and events. **Monitoring systems should be put in place** to measure the uptake and impact of communication and messages delivered. These systems must demonstrate the effectiveness and efficiency of ICTD’s communication actions. An effective M&E system must be put in place that measures the level of uptake by target groups. Annual reporting must define what processes can be improved within information systems.

## IDENTIFYING KEY TARGET AUDIENCES:

Target groups mentioned under the ICTD mandates for communication strategies involve distinct groups such as: national institutions and agencies, researchers and extension agencies, external donors and partners, local government and communities, and farming households. ICTD should stimulate these audiences to become increasingly engaged in information sharing. A wide range of rapid changes in national and local trends and threats provides the main context and factors that agencies focus upon. Government bodies and politicians need to respond to numerous emerging issues in Bhutan. Key issues of focus include:

- **Youth out-migration from rural areas.** Promoting **agri-business and agro-processing** opportunities with groups of unemployed youth, and engaging with existing SMEs. Programs of this type aim at adding value to local RNR-based products and services.
- Combating increased rural **household food insecurity** and resultant poor nutrition because of the impacts of the COVID-19 pandemic.
- Combating **climate change impacts** on farming households, focused on adaptation capacities and methods for reducing vulnerabilities.
- **Enhancing resilience and responses to disasters**, especially in geographical areas identified as being exposed to high levels of risk from hydrometeorological or geological hazards.

According to national policies and plans in all the RNR sub-sectors, these broad areas must be further subdivided. Messaging between information suppliers and target audiences must be based upon the **focused identification of crucial problems**.

OBJECTIVE	TARGET AUDIENCE & MESSAGES
<b>Combat youth outmigration from rural areas</b>	Rural youth <i>Gain employment in farming and private rural service delivery</i>
<b>Combat food insecurity and poor nutrition</b>	Rural households + Women's groups <i>Household, regional and national tips on food self-sufficiency</i> <i>Improving household standards of cooking and nutrition levels</i>
<b>Combat climate change impacts</b>	Farming households <i>Climate change response technology promotion</i>
<b>Promote Agri-Business Development</b>	Private Sector & Farmer's Group <i>Showcasing sustained public-private-partnership</i>

For each key problem area, **clear objectives must be established which target specific audiences.**

The objectives must always be to ensure a **high level of uptake of messages.**

ICTD experts should **define the benefits that the targeted audiences will receive**, resulting from using the information that is delivered to them.

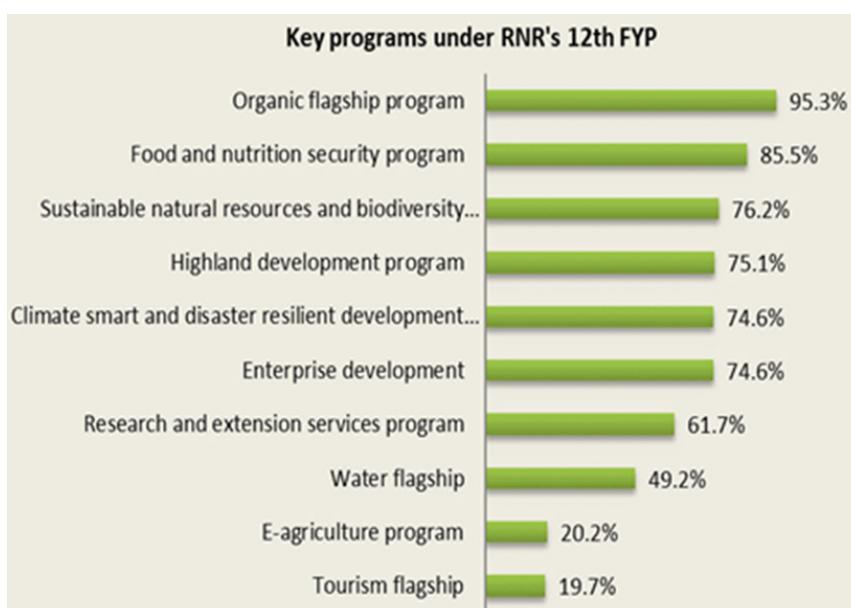
### **MESSAGES AND STORIES:**

Messages and stories to be delivered under the RNR communication system in Bhutan need to focus on actual problems in the RNR sector, and promote the best practices that help resolve these issues. Messages need to be carefully defined to ensure that the information being relayed is accurate and evidence-based.

Messages that MoAF is currently promoting are addressed from several key sources:

- (i) emerging program directions in the **Strategic Vision 2040 for the RNR sector**;
- (ii) ideas included in each **Five-Year Plan** for which there is a need to communicate for outcome and impact,
- (iii) priority messages coming from departments and other agencies at MoAF on a case-by-case basis, that help to resolve **emerging issues that are affecting the RNR sector.**

**Key message themes**, identified in the current 12th five-year plan and linked to national programs, were ranked in order of importance during the EU-TACS communication strategy study by respondents to a questionnaire (see Box below, 2020 data).



Further messages have developed due to the COVID-19 pandemic and are highlighted in the RNR Vision 2040 Strategy:

- (i) agri-business and related **employment opportunities for unemployed youth**;
- (ii) **green investments in waste management** and clean energy technologies;

- (iii) enhancing **soil fertility management** to improve national and local self-sufficiency in key food crops;
- (iv) establishing a **Fallow Land Bank system** to reduce the extent of idle land and improve its productivity with farmer support;
- (v) **farm mechanization** and innovative labor-saving production and processing technologies to combat rural labor shortages
- (vi) **decentralization of planning and financing to Dzongkhag administrations** and community participation in planning;
- (vii) **privatization of service delivery** to farming households and rural communities;
- (viii) **simple, low-cost digital E-communications systems for rural households** to promote communication in remote areas, especially concerning district lockdowns that may result from any pandemic risks.

### CHANNELS:

Traditional means of communication (media) are well-defined in the RNR **Communication and Information Technology Annual Reports**, prepared by ICTD.

Emphasis is placed on RNR newsletters; video documentaries; targeted short video clips; television and radio content (best practice TV programs, talk shows, thematic quizzes, expert interviews); provision of manuals, handbooks, guidelines, and extension leaflets (especially in comic book format, for farmers who are not literate); field demonstrations and on-farm research plots; and virtual networking and social media campaigns, that have emerged during the COVID-19 pandemic.

The Royal Government of Bhutan has established one **Community Center** in each of the 205 Gewogs. Many were established with support from the SASEC Information Superhighway Project, which connected communities across Bangladesh, Bhutan, India, and Nepal. These Community Centers have formed a **Village Network**. MoAF and ICTD, need to link with this network, to communicate RNR messages throughout Bhutan actively.

FAO has supported the preparation of an **E-RNR Master Plan (2016) for MoAF** (see Box below).



Digitalization allows **traditional and new network technologies to begin to converge**, such as Machine to Machine; the Internet of Things, using information technology platforms such as mobile apps and data analytics. These digital networks, when combined with data availability, require applications and the right enabling environment.

If managed correctly through ICTD, these emerging methods can unleash the tremendous innovation potential of the Bhutanese RNR sector. Several E-RNR systems have been piloted and scaled up in Bhutan already (see Box below).

#### E-RNR SYSTEMS: PILOTED OR SCALED-UP

- **E-Pest Surveillance System**
- **Agricultural Marketing Information System** for monitoring current prices of inputs and crop sales
- **RNR Crop Advisory Information System** mobile platform for crop management
- **Vegetable Market Information System** COVID-19 response system for tracking vegetable surpluses
- **Government to Citizen Service Delivery System**
- **E-Agroforestry Systems Advisory System**
- **Virtual Extension and Research Communication** Information Network
- **Community cable TV and broadband network to Chiwogs** that is under initiation

#### LINKING RESEARCHERS-EXTENSIONISTS-FARMERS:

Researchers in the RNR field in Bhutan are faced with the challenge of promoting and communicating existing and newly-generated knowledge, and turning it into practices. These must achieve tangible results and outcomes to improve the livelihoods of the farmers.

Much of the information generated from RNR research does not yet fully inform **policy-formulation and decision-making**. *Creating links between research results and policies, is vital to support farmers' efforts to innovate and adapt.* Often farmers cannot utilize information provided by researchers due to the lack of an **enabling policy environment** to facilitate the adoption of new technologies.

Over the last 5 years, numerous institutions have stressed that **RNR research should be demand-led**, to improve its relevance and the potential for uptake of findings and results by the intended beneficiaries.

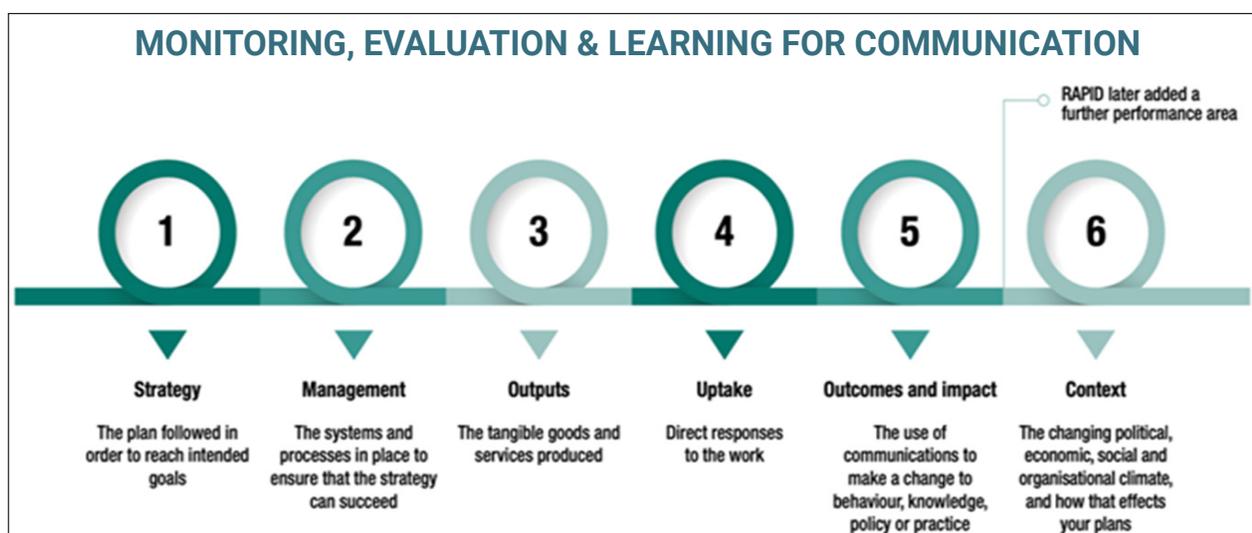
Based upon the renewed emphasis that community demands should lead research, **scaling-up and communication have received ever-greater attention**. There are several methods for sharing best practices:

- (1) **farmer field days** where exchange visits, exposure visits, or study tours are arranged;
- (2) **farmer field schools** where community groups work together on shared goals and learn together;
- (3) **farmer-managed demonstrations**, where researchers from ARDCs teach new techniques to groups of farmers;
- (4) **on-farm field trials** established by researchers from ARDCs;
- (5) use of **comic books or magazines** that are popular types of extension leaflet.

### MONITORING UP-TAKE AND EVALUATING IMPACTS:

One of the critical problems with communication actions in Bhutan is the **inability to measure the effectiveness of up-take of messages**, as they are passed on to the target groups and audiences. Numerical data and indicators should be defined early, to demonstrate how communication initiatives are expected to result in outcomes and impacts. Indicators should be recorded in the communication results log-frame as they are developed throughout each communication project, and this may mean revisiting the log-frame from time to time.

The process chart shown below portrays one Monitoring, Evaluation, and Learning option, that the ICTD could adopt. This framework is based upon the *Communication Monitoring, Evaluation, and Learning Tool Kit*, prepared by the Overseas Development Institute in London (Cassidy and Ball, 2018). The proposed **communication strategy framework** covers six steps starting with the strategic communication plan, and ends with defined outcomes related to changes in attitudes and practices of target stakeholders.



## POLICY IMPLICATIONS AND INSTITUTIONAL REFORMS

### STRUCTURAL CHANGE:

Strengthening of the Information and Communication Technology Division is required through the establishment of a **Knowledge Management and Strategic Communication Unit**, under the Communication Section; and for a **Monitoring and Evaluation Unit**, under the Planning and Governance Section.

Discussions and negotiations will be required between MoAF and the Royal Civil Service Commission (RCSC) to achieve these changes, to comply with RCSC rules and regulations.

### VISIONS, MANDATES, AND ROLES

With the change in emphasis towards a more devolved digital communication system for managing key target audiences, messaging and channel selection, there will be a need to prepare a focused set of visions, mandates, and roles for the various sections at ICTD, and for Focal Points at departments, non-department agencies and Dzongkhags.

### POLICIES, STRATEGIES AND PROGRAMMING:

The strategic direction at MoAF over the next Five-Year Plan period (2023-2028) should aim to effect changes in delivering:

#### MOAF-ICTD STRATEGIC DIRECTIONS FOR THE NEXT FIVE-YEAR PLAN:

- **Decentralized information and communication technologies**, down to grassroots Chiwog-level;
- A **targeted approach to identifying audiences** for better and relevant message delivery;
- A strengthened **community-based and managed message delivery system**;
- A **network of E-RNR communication systems** appropriate to farmers and rural communities living in remote mountain environments; and
- Establish a **participatory monitoring and evaluation system** for better up-take and impact of messages delivered to local communities.

These proposals and aims are detailed further in the Study on Communication Strategies for the RNR Sector supported by EU-TACS Project for ICTD in 2020.

## HUMAN RESOURCES AND TRAINING

Existing and newly-appointed ICTD officials will need professional human resources development in areas such as: information management, evidence-based statistics, strategic communication, E-communication, devolved communication methods, monitoring up-take, evaluating communication impact.

Similar training events and support for professional development should be made available to any Communication Focal Points within the Ministry, and at Dzongkhags.

### COORDINATION, COLLABORATION, AND LINKAGES:

**Communication Focal Points should be appointed in all Departments and Non-Department Agencies at MoAF to improve identification of priority target audiences and messages** better coordination with ICTD.

**Dzongkhags should be encouraged to appoint Communication Units** under the Dzongda offices to strengthen linkages between central and local levels of government and between local communities and local administrations for improved communication of RNR best practices.

**e-RNR Crop Advisory**  
A one-stop platform for farming

**What is e-RNR Crop Advisory?**  
The e-RNR Crop Advisory is a mobile app with easy access to repository of instructions on agricultural practices. It was launched on 4 November 2020. This information is shared through textual, picture and video contents.

**Who are the targeted audience?**

- The app is targeted for the Bhutanese youths to help them take up farming for their livelihoods.
- It can be also used by urban dwellers to start kitchen gardens.

**What are the features?**

- The app disseminates information on technical know-how of growing various crops starting from nursery management to the harvesting.
- It features useful farming tips including the tutorial videos for interested individuals to help them with crop management.
- It highlights the crop calendar displaying information on planting, sowing and harvesting periods of crops in specific agro-ecological zones.
- The app links to the website of the market price information (<http://www.agrimarket.gov.bt>) and the weather forecast (<https://www.ncdm.gov.bt>).

**How to install the app?**  
Please visit the link to know: <https://youtu.be/19VQALc7W>

**Where to access the app and contents?**

- The app is available on Google playstore for download.
- The contents can be also accessed on the Ministry's YouTube channel at <https://www.youtube.com/c/MoAFGovBt>

**Who are the development partners?**  
The app content is developed by Information and Communication Technology Division in collaboration with the Department of Agriculture and the Agriculture and Research Development Centres at Yatsang, Bapa and Wengkhur with the financial support from EU-TACS project, funded by the European Union and implemented by DAI. The technical support for the app was provided by Sunrise Computer Software Pvt. Ltd in Pune, India.

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Passive heating system greenhouses installed for RDTC, Zhongang  
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The Ministry's Week  
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**Community Based Fruit Fly Management**

ARDC Wengkhur

The Community Based Fruit Fly Management can be an answer to help reduce fruit drop in which the entire community growing citrus do the regular picking of dropped fruits and destroying them by keeping them enclosed in plastic bag, drums or burying them in pits added with hot boiling water will cut short the lifecycle of the fruit fly.

ARDC Wengkhur earlier initiated the community based fly management in Bhochar, Lhasatia and now have less infestation and more to sell. This year, Resa Village has started this campaign.

The community based fruit fly management is composed of multiple orchard management interventions - orchard cleaning, pruning, regular picking of dropped fruits and destroying by all orchard owners (resident or absentee) mandatorily every year.

The results don't come over night but definitely, it will start to pay off in 3 to 4 years with gradual decline in dropped fruits, decline in fly and increase in income.

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Website: [www.moaf.gov.bt](http://www.moaf.gov.bt)

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**CLIMATE SMART VILLAGE**

Solar Energy  
Solar Feeding  
Green-house  
Pineapple House (Drought Tolerant)  
Cauliflower Cabbage (Heat Tolerant)  
Drip Irrigation  
Electric Fence  
Biogas

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## Policy Briefs

Policy Briefs provide highlights on development issues in the renewable natural resources sector in Bhutan. The Policy Briefs provide information on topics such as governance, livelihoods, natural resources and sustainability in an accessible way for decision makers and donors.

Many of the Policy Briefs are based on evidence-based statistics available at the Ministry of Agriculture and Forests together with Research Studies carried out by the Policy and Planning Division at MoAF, and are often a synthesis of study reports prepared by international experts on behalf of donor agencies assisting the MoAF in Bhutan.

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