With support from

Federal Ministry of Food and Agriculture

by decision of the German Bundestag

POLICY BRIEF

GERMAN-MONGOLIAN COOPERATION PROJECT "SUSTAINABLE ARGICULTURE"

GFA CONSULTING GROUP
Generalbeauftragter BMEL Büro Berlin

Nr. 02.2020

Key messages

- Facilitate increased access to agricultural information as to assist farmers and herders to adapt to changes at policy, legal, environmental and market levels
- Combine the use of mass media, internet platforms, specific printed media, training and information events and interpersonal communication for dissemination of agricultural information
- Establish regular collaboration with mass media based on annual plans for publications along with budget contributions
- Develop a cloud platform for displaying information from different sources, preferably administered by NAEC
- Assess and upscale existing initiatives of using ICTs for self-study
- Adequate equipping and staffing of the press and public relations unit of MOFALI
- Establish a central agricultural information database managed by NAEC
- Train journalists and other content developers in development of quality content for agricultural readers
- Distance training of agricultural producers on the use of internet platforms and content development

Improving dissemination of agricultural information

The government of Mongolia has made significant efforts to enhance the sustainability of the food and agriculture sectors through a number of policy and legislative reforms during the recent years. However, a critical issue limiting the effectiveness of policy initiatives to facilitate sustainable changes is the lack of capacity and mechanisms for dissemination of information to herders, farmers and other agricultural value chain actors. Timely delivery of quality information is essential for communicating new rules and regulations and enabling farmers and herders to adapt their production systems to the changes occurring in the legal and political frameworks and at the environmental and market levels. Based on a pre-assessment of the current situation, this policy brief discusses selected options for improving the dissemination of agricultural information.

Types and relevance of agricultural information

The term “agricultural information” refers to all types of information used by farmers, herders and other stakeholders of agricultural value chains in making decisions regarding all processes across the value chains, ranging from input supply to processing and marketing. Agricultural information can be broadly divided in:

- Legal and policy information: legal provisions, regulations, policy decisions, policy trends etc.,
- Information related to production: weather forecasts, advice on production technology, information on equipment, seeds, fertilisers, processing etc.,

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- Market information: demand for agricultural products, prices, sales opportunities etc., and
- Research information: preliminary and final results of research conducted in agriculture-related fields.

As a basis for decision-making, information is an essential input in agriculture. Lack of reliable and useful information limits the productivity and profitability of agriculture while restraining the sustainability of the strategic sector of agriculture and food security in Mongolia. Timely access of all farmers, herders and other stakeholders of agricultural value chains to essential and useful agricultural information is therefore a pre-requirement for the development of the agricultural sector.

Sources and dissemination platforms of agricultural information

Agricultural information is provided and used by all organisations and individuals engaging in the sector. Regarding reliability and accountability, the sources of agricultural information can be divided in official and unofficial sources.

Official sources of agricultural information include:

- The government and its administrative bodies in the agricultural sector
- Public research and educational institutions
- Semi-governmental entities e.g. Agricultural commodity exchange, AgRe, Fund for Supporting Crop Production
- Farmers' associations
- Donor-funded projects that are monitored by government bodies such as MOFALI

Unofficial sources of agricultural information are:

- Mass media
- Non-governmental organisations and private sector entities in the agricultural sector
- Individual agricultural producers
- Other organisations and individuals disseminating agricultural information

This classification should not be interpreted as to underestimate the relevance and usefulness of agricultural information from unofficial sources. The issue regarding these sources is insecurity of the correctness of the information disseminated.

Currently, the following platforms are used for dissemination of agricultural information:

1. Mass media
    - Radio
    - Television
    - Newspapers and magazines for the general public
2. Internet platforms
    - Websites
    - Social media e.g facebook, youtube, twitter
3. Sector-specific printed media
    - Books, booklets, manuals and catalogues

- Newsletters, brochures and leaflets
- Academic journals, proceedings and compendia.
- Sector-specific newspaper and magazine ("Mongoliin khuduu" newspaper and "Shine usult" magazine)

4. Training and information events (meetings, symposia, assemblies etc.)
5. Interpersonal communication (communication among business partners, neighbouring farmers etc.)

Mass media are suitable for disseminating information to a large target audience at low costs. The most popular medium in Mongolia is television. Cable access is near ubiquitous in both urban and rural households such that television broadcasts play an essential role in self-study while watching broadcasted programmes (Chuluunbaatar et al., 2017). Newspapers and magazines for the general public also play an important role in the dissemination of agricultural information.

Internet platforms are becoming increasingly popular with the expansion of internet access in Mongolia and projected increased access to video platforms and social media e. g. YouTube and Facebook via smart phones (Hootsuite, 2019). Free Facebook live broadcasts, Skype, and a myriad of messenger services (e.g. WhatsApp, Viber, Line, etc.) allow lectures and consultations to take place virtually anywhere. Internet platforms are particularly useful for delivery of technical advice, facilitation of exchange among different stakeholders and distance training.

Sector-specific printed media are prepared for educational, promotional or informational purposes and target certain groups of readers. The main advantage of sector-specific printed media, including the "Mongoliin khuduu" newspaper and the "Shine usult" magazine is that readers tend to assign a greater credibility to such media than to mass media and internet platforms. This overall tendency applies even if the printed media are issued by unofficial sources. Hence, despite the increasing trend of digital information transfer, sector-specific printed media are still relevant.

Training and information events are focused on specific subjects and target specific audiences. Their main advantage lies in the intensity of information exchange. Participants are brought together with original or credible sources of information and encouraged to ask questions in order to fully understand the contents delivered. From an information dissemination view, the participants can be considered as potential multipliers, who will further disseminate the information to their peers and neighbours through interpersonal communication.

Interpersonal communication has been found by numerous studies as the most effective way of agricultural information transfer (e.g. Sivayogonathan and Tedrick, 1986; Goswami and Sarkar, 2009). People tend to believe what they hear from their peers and neighbours more than what they hear on television, for example. Interpersonal communication mostly occurs as a two-way communication (i.e. conversation), hence presenting the most intensive form of information transfer.

Figure 1 compares the strengths and weaknesses of the above platforms. Regarding usefulness and reliability of information disseminated, training and information events and sector-specific printed media are superior to the remaining platforms. Internet platforms demonstrate the highest speed of information transfer. Mass media and interpersonal communication stand out as the platforms with the highest cost efficiency and rates of coverage. In summary, there is not "the best" platform for dissemination of agricultural information.

Depending on the type of information disseminated and the target audience, a certain platform might be preferred. But as various as the needs for agricultural information are, all available platforms for information dissemination should be used in combination.

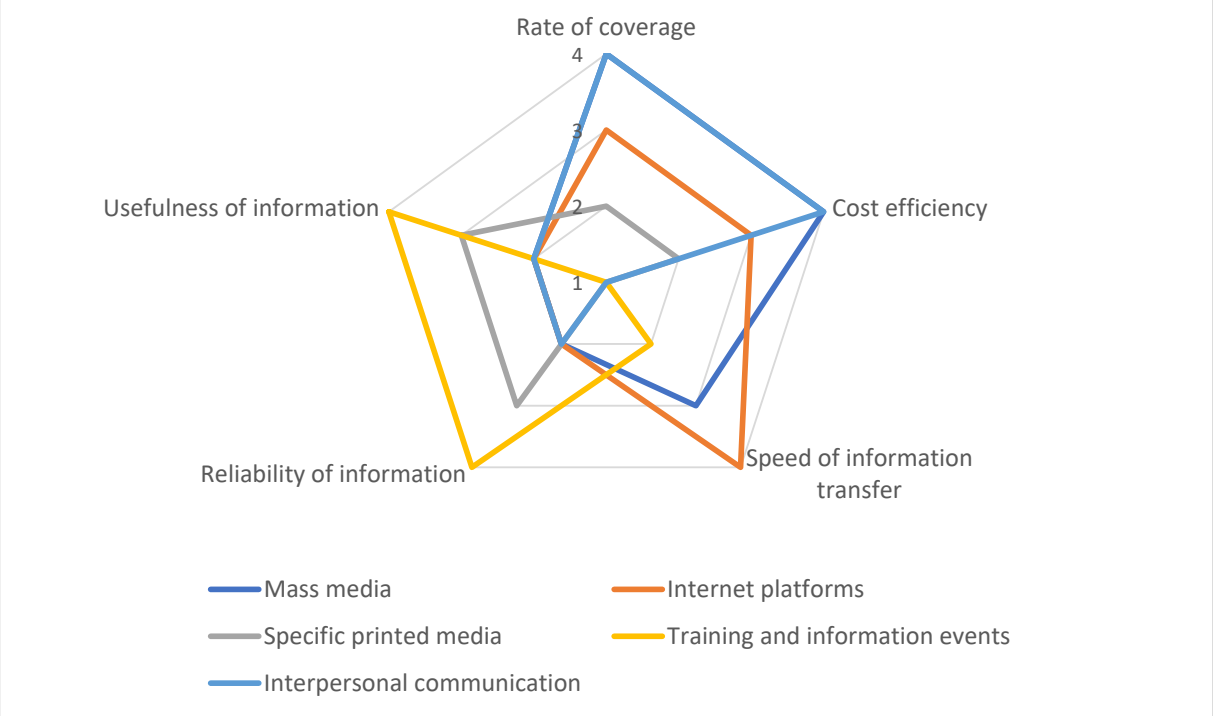

Figure 1. Strengths and weaknesses of different platforms for dissemination of agricultural information, assessed on a scale between 1 and 4 points (1-lowest, 4-highest)

Challenges for dissemination of agricultural information

The overall need to improve the dissemination of agricultural information can be divided into the following objectives:

1. Improving the availability of and access to agricultural information
2. Improving the quality of agricultural information disseminated

Both issues require enabling policies and institutional settings as well as collaboration of different stakeholders. In some countries (e.g. Zambia), there are government agencies or units solely designated for dissemination of agricultural information while some other countries (e.g. China or Serbia) have embedded the responsibilities of the government for ensuring effective dissemination of agricultural information in their legislation of agricultural extension services. Since these models lack legal frameworks in Mongolia the below suggestions for improving the dissemination of agricultural information are focused on enhancing the capacities of the existing structures.

Recommendations for increased and effective use of media and internet platforms for dissemination of agricultural information

Regular collaboration with sector-specific and mass media – While numerous newspapers and magazines in the agricultural sector have been initiated since 1990, the only sector-specific newspaper left now is "Mongoliin khuduu" of Mongolian University of Life Sciences. In addition, the independent magazine "Shine usult" has been issued since 2019. For these two sector-specific media to be maintained in the future, policy support will be inevitable, as demonstrated by the experiences of last 30 years. The main issue regarding the use of mass media in agricultural information dissemination, on the other hand, is lack of continuity i.e. irregularly delivery of agricultural information. Policy makers in the agricultural sector are hence advised to establish regular collaboration with the newspaper "Mongolian khuduu", the "Shine usult" magazine as well as selected television channels and other newspapers on dissemination of agricultural information. Regular collaboration should be based on an annually approved plan for publications, along with budget contributions from MOFALI and other relevant actors.

Systematic use of internet platforms - A problem with internet platforms, most of which allow and encourage everyone to publish, is the lack of a structure in the load of information disseminated. Hence, the challenge is to establish a system or structure among the different internet platforms that disseminate different types of agricultural information so that the target audiences are informed on where to find what types of information and can also be sure that the information they find at those platforms are reliable. Policy makers and farmers' associations are therefore advised to avoid overload of information on the internet and use few central platforms instead. Such platforms can be established on the basis of existing initiatives such as the agricultural information portal www.agrinfo.mn, managed by NAEC and the digital library http://books.xxaa-zainii-surgalt.mn. The suggested central platforms could take the form of cloud platforms on which information from different sources are displayed together, and use tags for categorizing the information. Policy makers are also advised to assess and upscale existing initiatives of using internet platforms for self-study, such as the online learning platform developed by UNIDO for occupational safety and health (e.g. H_2S poisoning), sheep shearing and flaying frame demonstrations and the MULS initiative "Mobile Information Bag" for herders.

Recommendations for enhancing the organisational capacities of MOFALI for dissemination of agricultural information

Strengthening the press and public relations unit of MOFALI - New laws, regulations and policy decisions need to be communicated to the stakeholders concerned in a timely manner and adequate formats as to ensure their enforcement, whereby adequacy of format relates to both the type of content and the vocabulary used. Since a compendium of laws and regulations, for example, is hard to understand for many farmers they need to be converted into contents prepared in an easily understandable vocabulary and displayed in a combination of text, images, animations and videos. For dissemination of contents, depending on the target audience, not only the traditional forms of publication such as handbook, brochure and newsletter but also television, radio, websites and cell phone apps can be used. Since this type of information originates from MOFALI and agencies coordinated by the ministry, the central unit responsible for information preparation and dissemination should

be the press and public relations unit of MOFALI that is currently run by only one officer of the Department for Coordination of State Administration. The unit should to be adequately equipped, and staffed with at least four persons, including the journalist (who is currently employed), an editor, a photographer and filmmaker, and a person specialised in preparing contents for internet publications. The press and public relations units of the Ministry of Environment and Tourism and the Ministry of Health can serve as sophisticated domestic examples in terms of personnel and equipment (Bayar-Otgon, personal communication).

Supporting NAEC's involvement in online publishing and database administration **-** As the head organisation of agricultural extension in Mongolia, NAEC assumes an important role in development of dissemination of agricultural information, whereby its focus is placed on delivery of information related to management and technology of agricultural production. Besides regular publishing of handbooks, manuals and brochures containing information and advice, NAEC develops contents for mass media and internet platforms. In the future, NAEC's involvement in agricultural information dissemination should be expanded to integrate the following two functions:

- Development and administration of a central agricultural information database; and
- Central coordination of all agricultural information published online by official sources.

The first function should be assigned by MOFALI, along with the budget required for establishment and regular maintenance of an information database. The database can be very useful for, among others, agricultural research and extension activities. For the second function to be established by NAEC itself, a possible option is to convert the portal www.agrinfo.mn to the suggested cloud platform that displays information published by all official sources in the agricultural sector.

Recommendations for building the human resource capacity for dissemination of agricultural information

Training of journalists and content developers specialising in agriculture **-** Effective dissemination of agricultural information requires high quality of the contents and the ability of the target audiences to access and understand the contents. For quality assurance on the supply side, content developers at NAEC, MOFALI and other relevant organisations in the agricultural sector as well as journalists specialising in agriculture need to trained. In the mining sector, the GIZ project "Integrated Mineral Resources Initiative" addressed this issue through a series of training activities and a study tour to Australia for journalists specialising in mining. This experience could serve as an example for training journalists in delivering high-quality contents to readers in the agricultural sectors (Otgonjargal, personal communication).

Distance training of agricultural producers on the use of internet platforms **-** A current issue related to the increasing trend of online information dissemination the inability of farmers and herders to effectively access the contents available on the internet. Most of them have not been trained in the use of computer, smart phones and tablets to access and utilise online contents. Furthermore, they use internet platforms for not only receiving information but also sharing their own contents. For improving the contents they develop and share with others, a basic training on preparation and editing of text, images and videos is recommended. This type of training is currently not offered but there are organisations that are able to conduct it. Targeting the mass

of farmers and herders, the suggested training should be offered as distance training via those internet platforms used by the target groups.

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