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Ministry of Agriculture and Nepal Agricultural Research Council, Nepal

Developing agricultural communications in Nepal

Consultancy report 6

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Introduction

This report is the result of a one-month consultancy by Paul Mundy (international consultant) and Upendra Phuyal (national), development communication specialists for the World Bank-funded Agricultural Research and Extension Project, Nepal. This was the second of three planned one-month consultancies under the project for Dr Mundy. It was the 10th month of inputs into the project by Mr Phuyal.

The consultancy focused on two institutions: the Ministry of Agriculture's Agriculture Information and Communication Centre (AICC, recently renamed from the Agriculture Communication Division), and the Nepal Agricultural Research Council's Communication, Publication and Documentation Division (CPDD).

Terms of reference

Our terms of reference included the following:

1. Develop methods, tools and indicators for impact studies of AICC's farm radio, TV programmes and extension publications.
2. Plan and organize a workshop to produce information materials.
3. Help CATC/RATC to develop communication training courses for extension officers, JT/JTAs and ACD/RCU staff.
4. Contribute to prepare a vision policy and strategy statement of DOA/MOA on agricultural communication and mass media.
5. Internal consultancy in ACD to improve staff knowledge and skills in key areas.

On request, we also contributed to discussions on the future of NARC's communication activities.

We discuss each of these items below.

The national consultant's terms of reference included several additional items, which will be reported separately.

Previous reports

This is the sixth of a series of consultancy reports on communication for AREP. Previous reports are:

1. [Mundy/Phuyal, Sept 1999](#): Identified major problems and issues, and suggested solutions. This report contains a large number of recommendations for equipment, skills and linkages for AICC, regional communication units, and NARC's Communication Publication and Documentation Division (CPDD).
2. [Phuyal, October 1999](#): Identifies communication skills needs for ACD, RCUs and CPDD, and potential courses to strengthen staff skills.
3. [Phuyal, February 2000](#): Summarizes recommendations from reports 1 and 2.
4. [Phuyal, March 2000](#): Focuses on AICC's strategies and needs.

5. [Phuyal, March 2000](#): Focuses on CPDD's strategies and needs.

All of these reports are available on the internet at <http://www.netcologne.de/~nc-mundypa/current#arep>.

AICC impact study

We propose that an impact study be conducted to evaluate AICC's publications, radio and TV outputs. This will consist of a formal audience survey in 13 districts (3 mountain, 5 hill, 5 Terai), covering both farmers (male and female) and extension staff. This survey will yield quantitative data on audience exposure to each type of media, their opinions of it, and suggested improvements.

Additional data-gathering techniques could include focus groups of audience members to discuss individual publications, radio programmes (on cassette) or television programmes (on video); focus groups of stakeholders not currently seen as major target groups (NGOs, input suppliers, marketing firms etc.), and a mail-in questionnaire for AICC magazine readers.

Appendix 1 contains some suggested guidelines for the study, a possible sampling frame, and suggestions for questions to be included.

AICC and AREP should analyse these suggestions carefully, and adjust them as needed to overcome likely problems in data gathering.

The study should be contracted out to a qualified independent body. This is for two reasons:

- AICC itself does not have the capacity to perform such a study itself.
- Independence is important to guarantee objectivity in the data collection, analysis and reporting.

Workshop to produce extension information materials

A joint AICC/NARC workshop was held at Tribhuvan University on 4–8 September. We first proposed this workshop in our initial report (September 1999), and helped plan, organize and implement it before and during this consultancy.

Some 50 participants from NARC, AICC, various branches of the Ministry of Agriculture, NGOs and universities attended the workshop. Supported by a team of editors, artists and computer operators, they presented 16 manuscripts on a variety of agricultural topics, critiqued them, edited and illustrated them. They then presented the revised drafts a second time, again gathered comments, and revised them again to produce a third draft. On the fourth day of the workshop, the participants pre-tested the materials in the field with farmers. On the fifth day, they incorporated final revisions.

The resulting 16 brochures, pamphlets and leaflets will be published by AICC as part of its regular publications programme.

This workshop had several benefits aside from the physical outputs (the 16 draft printed materials).

- The workshop mechanism was tested and refined, and staff were trained in how to run it. AICC, NARC and others can use the process in the future to produce information

materials, helping to increase the limited flows of information flowing from research to AICC and on to users.

- The participants also learned how to write and edit materials in a user-friendly style, and had hands-on practice in doing this. This will also boost the flow of user-friendly information flowing to users.
- Linkages among NARC, AICC, the Ministry of Agriculture and NGOs were improved. Participants made personal contacts, learned to respect each others' points of view, and work together towards a common goal. Such networks should prove useful in the future of decentralized and distributed research and extension efforts.

A report of the workshop appears in [Appendix 2](#), along with guidelines for managing such workshops and the results of the participant evaluation ([Appendices 3–11](#)).

Communication training courses

By agreement, the national consultant (Phuyal) focused on this issue, while the international consultant concentrated on the impact study. Progress on the training courses will be reported separately.

The international consultant has provided a number of potentially relevant training materials to the national consultant. These must be selected, adapted and translated to suit the needs of the CATC/RATC trainees.

Vision and strategy for communications in DOA/MOA

We have developed some ideas for how the Ministry can go about planning its communications strategy ([Appendix 12](#)). We suggest a participatory, two-stage approach involving both AICC management and staff, and a broader group of stakeholders. For practical reasons, we have focused on AICC rather than the Ministry as a whole, though the process we suggest would feed into the Ministry's overall communication strategy.

Internal consultancy in AICC

This rubric covers two items: radio drama series and the use of the internet.

Radio drama series

We suggest that AICC consider developing a radio drama series along the lines of *The Archers*, a successful British radio soap opera aimed at rural people. Such series are popular among rural people in Nepal (witness the *Old Lady* programme currently being produced). Because they are entertaining, they attract a large, attentive audience, so are highly effective at conveying development messages.

AICC already has the facilities and some of the skills needed to produce such a show. Additional funding would be needed to support the additional costs involved, especially for audience research, scriptwriting and talent fees. We suggest that AICC enter into a partnership with ICIMOD, Johns Hopkins University and other organizations to seek the funding and other types

of support required. Both ICIMOD and JHU are ready to assist, and the AICC management and radio staff have expressed their interest in this idea.

Further details are in [Appendix 13](#).

Use of the internet

Internet technology has major implications for AICC. Three examples:

- AICC could put all its publications on a website, thereby making them instantly available to a large number of clients who would not otherwise receive them.
- It could put its radio programmes on a website: either the scripts, or the audio recordings, or both. This would enable the new radio stations now being licensed to download and broadcast programmes.
- It could use email to generate and edit publications – eliminating the need for costly faxes or meetings, or the delays involved with mailing edited versions to authors for checking.

A typical reaction when the subject of the internet is broached is that “farmers don’t have access to computers”. This is true, but it is based on a false assumption. Internet users are intermediaries in the information-supply chain: NGOs (which tend to be very internet-savvy), government, private firms, university staff and students, the media, and consulting groups. Reaching these people is important because they multiply information many-fold, providing it to farmers and other rural people that AICC has no chance of reaching through other means.

[Appendix 14](#) has some suggestions on how AICC could begin to take advantage of this major opportunity.

NARC communication strategy

We are pleased to note that our September 1999 recommendations are being considered seriously by NARC, and that several have been implemented already.

During this consultancy, we had productive discussions with Bhola Pradhan (NARC Director of Planning and Coordination), Bhola Man Singh Basnet (Chief, NARC Communications, Publications and Documentation Division) and Stephen Biggs (AREP research management consultant).

These discussions covered the following topics:

- CD-ROM journal library (TEEAL)
- NARC regional communication centres
- Email and internet services
- Information management
- Researchers’ incentives for service to extension
- NARKIS (Nepal Agricultural Knowledge and Information System) – an FAO proposal
- Regional technical working groups

[Appendix 15](#) contains a summary of our discussions and the recommendations that arose through them.

Plan for next phase of consultancy

We propose to take on three major tasks during the next (and final) phase of our consultancy (due in mid-2001):

- Assist in AICC's strategic planning exercise, if this has not yet been completed.
- Conceptualize the development of an AICC website, train staff in how to manage it, and develop an initial site.
- Further the development of the proposed radio drama series.

If requested, we could also assist NARC in furthering its strategic communication planning, especially with regard to the communication units in the regional stations.

Appendix 1

Suggestions for impact evaluation of AICC media materials

Media output to be evaluated

AICC produces three main types of media materials: extension publications, audio programmes for radio broadcast, and video programmes for TV broadcast.

Extension publications

AICC produces several different types of publication:

- Leaflets: 8–20 titles per year, 20000 copies per title
- Folders: 15 titles per year, 5000–15000 copies per title
- Posters: 10 titles per year, 10000–15000 copies per title
- Booklets: 20 titles per year, 10000 copies per title
- Magazine: 6 issues per year, 6000 copies per issue
- Diary: 1 issue per year, 6000 copies
- Calendar: 1 issue per year, 10000 copies

With the exception of the magazine, these publications are distributed free of charge to regional extension offices and to about 40 district extension offices along the roads (all Terai districts and some in the hills). The regional offices are requested to forward them to district extension offices in their regions. The district offices in turn are asked to distribute the publications to extensionists and farmers in their areas.

Depending on the topic and its relevance to the district, more or fewer copies of a publication may be sent to each district.

The magazines are distributed free to district agriculture and livestock offices, researchers, and others. In addition, about 800 copies are sent to paying subscribers.

The main audiences of extension publications are extension workers (totalling about 1300 people) and the farmer groups they come into contact with. Not enough copies are printed for distribution to large numbers of farmers, and the distribution system does not currently enable significant quantities of publications to be distributed outside the extension system.

Radio programmes

AICC produces audio programmes for broadcast by Radio Nepal in a daily 15-minute evening time slot. These programmes include:

- Sunday: Farming activities
- Monday: Question-and-answer
- Tuesday: Group discussion
- Wednesday: Interview
- Thursday: Livestock
- Friday: Old Lady and JT
- Saturday: News events and farming activities

The main audience of farm radio programmes radio is farmers within the broadcast area of Radio Nepal, with access to radio sets.

TV broadcasts

AICC produces 26 programmes per year for broadcast by Nepal TV. These are included in the regular daily agricultural programme. Nepal TV also produces its own programmes and obtains programmes from other sources for this slot. AICC's programmes are normally field-based, those produced by Nepal TV are often studio-based, but this may not be enough of a distinction for viewers to realize the difference between the AICC programme and those produced by others.

Because they are broadcast as part of a wider series, it may not be realistic in a survey to evaluate AICC's programmes alone. It may therefore be necessary to evaluate the agriculture TV programme as a whole.

The main audience of the TV broadcasts are people within the Nepal TV broadcast area (Kathmandu Valley, Terai and certain hill districts), with access to TV sets. This restricts the coverage to agriculture officials, businesspeople and richer farmers.

Purpose of evaluation

The evaluation will determine the impact of AICC media materials (publications, radio and TV programmes) on the audience. It will focus on the following questions:

- The relative importance of various information sources on agriculture.
- Exposure to AICC publications, radio and TV programmes.
- Relevance and usefulness of AICC publications, radio and TV programmes.
- Suggested improvements to AICC publications, radio and TV programmes.

The results of the evaluation will be used to help guide AICC's strategic plan, and to adjust its media production activities.

Study design

The data will be gathered using face-to-face interviews using a short survey questionnaire. The survey will be carried out in at least 13 districts (5 Terai, 5 hill [excluding Kathmandu Valley], and 3 mountain) in at least 3 regions.

The respondents will include both extension workers (JTs and JTAs) and farmers.

In the design and analysis of the questionnaire, maximum use will be made of existing sources of information, especially audience surveys carried out for Radio Nepal and Nepal TV.

Questionnaire instrument

Separate questionnaires will be used for the extensionists and farmers. The extensionist questionnaire will focus on publications, while the farmer survey will cover publications, radio and TV.

The instrument will be short (ca 4–6 pages), including only those questions that are relevant to the purpose of the survey. Questions on demographics will enable the respondents to be broken down into categories for comparison (eg, extensionists posted to district offices vs those in accessible villages vs those in remote villages; educated vs uneducated farmers, men vs women, etc.).

Sample selection

Three regions should be drawn at random. Within these, up to five districts should be drawn at random, so that in total, 3 districts in the mountains, 5 in the hills and 5 in the Terai are selected.

Within each district, one “accessible” village should be selected that is close to the district capital or within 5 km of a road. A second, “remote”, village should be selected that is more than 5 km from the district capital or the nearest road.

Within each village, about 15 farmers should be selected as respondents: half men, half women. All respondents should be active in farming. Ideally, respondents should be selected at random; if this is not possible, then care should be taken to avoid biases such as oversampling members of farmer groups or richer landowners.

This sampling frame will yield a total of about 400 farmer interviews.

The extension workers serving these villages should also be interviewed. In addition,

For extension workers, the study should include about 100 respondents, with about 30 from accessible villages, another 30 from remote VDCs, and another 30 from the district capital.

The following table gives a possible sampling frame.

	District	Region	Village	Respondents	
				Farmers	Extensionists
Mountains	District 1	A	Accessible	15	3
			Remote	15	3

			Capital	0	3
	District 2	B	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 3	C	Accessible	15	3
			Remote	15	3
			Capital	0	3
Hills	District 4	A	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 5	A	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 6	B	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 7	B	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 8	C	Accessible	15	3
			Remote	15	3
			Capital	0	3
Terai	District 9	A	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 10	B	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 11	B	Accessible	15	3
			Remote	15	3
			Capital	0	3

	District 12	C	Accessible	15	3
			Remote	15	3
			Capital	0	3
	District 13	C	Accessible	15	3
			Remote	15	3
			Capital	0	3
Total				390	117

Pre-test

The questionnaire will be pre-tested carefully using a sample of respondents in one district. This will enable the questionnaire to be revised, and will also serve as a training opportunity for interviewers.

Possible additional information sources

If resources permit, focus-group studies could be held involving representative groups of farmers and extensionists discussing AICC media materials. The groups could be shown a selection of AICC publications (or watch an AICC video, or listen to a recording of an AICC radio programme), and be asked to react to the materials. Did they understand them, did they like them, how could the materials be improved, etc?

Certain agricultural stakeholders who do not normally receive AICC publications could be interviewed (possibly in focus groups) to determine their opinions of AICC publications and broadcasts, and their information needs. These non-recipients could include staff of NGOs, input suppliers, marketing firms, credit providers and non-extension government staff (such as irrigation officials). The purpose would be to explore how AICC could serve their (and their clients') information needs.

For the AICC magazine, a mail-in survey form could be used to gather reader feedback. The chance of winning a small prize could be offered to readers who return the completed survey form.

Evaluation questions

Below is a list of possible questions or topics that the questionnaires could include. The questions are drafts only: they must be reviewed carefully, translated, and rewritten or adapted to suit actual conditions. Additional questions may be necessary. The questions must be tested in the pre-test to ensure that the respondents can understand them.

Some of the possible responses are indicated. These could be printed on the questionnaire form to allow the respondents (or the interviewer) to mark the appropriate one. The questionnaire would have to be laid out to facilitate this.

Some of the questions depend on responses to previous “filter” questions. If, for example, the respondent has never heard the agriculture radio programme, he or she cannot answer the

questions on this programme rationally. The instructions must be designed to take this into account.

Note that respondents may not be familiar with the names of ACD (used here) or AICC. The wording of the questions would have to take this into account.

Questionnaire for extensionists

Demographics

Needed to classify extensionists and allow comparisons among groups.

District: Name of district

Location: Terai / hills / mountains

Gender: Male / female

Education: Number of years in formal schooling

Office location: District extension office with road / district extension office without road / VDC within 5 km of road or town / VDC more than 5 km from road or town

Relative importance of information sources

How important are ACD publications to extensionists relative to other sources of agriculture-related information? **Purpose:** to identify other sources of information, and gauge the relative importance of ACD publications/broadcasts.

For extension purposes, how much information do you obtain from the following sources? (score each on a scale 1–7, 1 = very little, 4 = medium, 7 = very much) (Farmers / other extensionists / superiors / researchers / ACD publications / Radio Nepal / other radio / Nepal TV / other TV / newspapers and non ACD magazines / own education and training / own experience / other)

Publications

Distribution

Are the publications distributed effectively to extensionists and farmers? If not, where are the bottlenecks? Do the publications arrive at district offices? At extension posts? Into farmers' hands? What percentage of farmers receive them?

How often does your office receive copies of ACD publications? (about every 4 months / about every 8 months / once a year / never)

How many copies of each leaflet or booklet arrive at the office? (_____)

What do you do with these publications? (tick all appropriate) (store them / distribute to other extensionists and development agents / distribute to farmers)

How many copies of each leaflet does your office typically distribute to farmers? (_____)

Extensionists' exposure to publications

Do they read them?

How much of each ACD publication do you read? (read every publication fully / read most fully / read about half / read only some / read none)

Relevance to extensionists

How do extension personnel use the publications?

How do you use ACD publications? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- *ACD publications are an important source of new information for me.*
- *I refer to ACD publications to remind myself of things I have forgotten.*
- *I use ACD publications during extension meetings with farmers.*
- *I give ACD publications to farmers for their own use.*

Extensionists' opinion of farmer use of publications

What do farmers think of the publications?

How do farmers use ACD publications? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- *Farmers are always keen to receive copies of the publications.*
- *Farmers find the publications useful.*
- *Farmers find the publications easy to read.*

Comparison among types of publication

Which types of publication are most useful?

Taking everything into account (amount of information, weight, size, ease of reading, etc.), which type of ACD publication do you find most useful? (Leaflets / folders / posters / booklets / magazine / diary / calendar)

Which type of ACD publication is most useful for farmers? (Leaflets / folders / posters / booklets / magazine / diary / calendar)

Suggested improvements

What subjects would extensionists like to see covered by extension publications? What improvements in the publications can they suggest? How many copies of each publication would they like for distribution to farmers?

How might ACD publications be improved? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- *ACD publications should be sent directly to district extension offices, not via the regional offices.*
- *The number of copies of ACD publications should be increased so more copies can be given to farmers.*
- *The number of different publications should be increased, so more subjects can be covered.*
- *ACD publications should be written in simpler language and contain more pictures than at present.*

What new topics would you like to see covered by ACD publications? (_____)

How else might ACD publications be improved? (_____)

Questionnaire for farmers

Demographics

Needed to classify farmers and allow comparisons among groups.

District: Name of district

Location: Terai / hills / mountains

Gender: Male / female

Education: Number of years in formal schooling

Land area farmed: Number of Kattha/Ropani

Literacy: Fluent / some / none

Location: Within 5 km of road / More than 5 km from road

Relative importance of information sources

How important are ACD publications to farmers relative to other sources of agriculture-related information? **Purpose:** to identify other sources of information, and gauge the relative importance of ACD publications/broadcasts.

How much farming-related information do you obtain from the following sources? (score each on a scale 1–7, 1 = very little, 4 = medium, 7 = very much)

(Other farmers / extensionists / researchers / publications produced by the Agriculture Communication Division of the Ministry of Agriculture (ACD) / Radio Nepal / other radio / Nepal TV / other TV / newspapers and magazines / own education and training / own experience / other)

Think of the most recent new farming technology you tried out. Where did you get the information about this technology? (mark as many as are relevant) (Farmers / other extensionists / superiors / researchers / ACD publications / Radio Nepal / other radio /

Nepal TV / other TV / newspapers and magazines / own education and training / own experience / other)

Publications

Publication distribution

Are the publications distributed effectively to farmers? What percentage of farmers receive them?

How many different publications on farming produced by the Agriculture Communication Division of the Ministry of Agriculture have you seen this year? (_____)

Where did you see them? (_____)

Do you have any ACD publications in your house? How many? (_____)

Farmers' exposure to publications

Do they read them?

Do you read the ACD publications? (Yes, I read them myself / someone reads them to me / no, don't read)

How much of each ACD publication do you read? (read every publication fully / read most fully / read about half / read only some / read none)

Farmers' opinion of publications

What do farmers think of the publications?

How do you use ACD publications? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- ACD publications are an important source of new information for me.*
- I refer to ACD publications to remind myself of things I have forgotten.*
- The extension worker gives out copies of ACD publications during meetings with farmers.*
- I am always pleased to receive copies of ACD publications.*
- I find ACD publications useful.*
- I find ACD publications easy to read.*
- I would be willing to buy ACD publications if they were sold cheaply in a local shop.*

Comparison among types of publication

Which types of publication are most useful?

Show respondent copy of several different publications.

Taking everything into account (amount of information, weight, size, ease of reading, etc.), which type of ACD publication do you find most useful? (Leaflets / folders / posters / booklets / magazine / diary / calendar)

Suggested improvements to publications

What subjects would farmers like to see covered by extension publications? What improvements in the publications can they suggest? How many copies of each publication would they like for distribution to farmers?

How might ACD publications be improved? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- *ACD publications should be on sale in shops.*
- *The number of copies of ACD publications should be increased so more copies can be given to farmers.*
- *The number of different publications should be increased, so more subjects can be covered.*
- *ACD publications should be written in simpler language than at present.*
- *ACD publications should contain more line drawings than at present.*
- *ACD publications should contain more photographs than at present.*
- *ACD publications should be in the local language (_____).*

What new topics would you like to see covered by ACD publications? (_____)

How else might ACD publications be improved? (_____)

Radio

Ask these questions only if in an area with a radio signal

Farmers' exposure to radio

Do they listen to the radio?

Do you have access to a working radio? (Have own working set in house / listen to neighbour's set / listen in shop or other public place / no)

How many days a week do you listen to the radio? (every day / 6 / 5 / 4 / 3 / 2 / 1 / less than once a week)

How many hours a day do you listen to the radio? (8 or more / 7 / 5 / 3 / 1 / less than 1)

What station(s) do you listen to? (Radio Nepal / local / _____)

Do they listen to the ACD agriculture programme?

Do you know the agriculture programme on Radio Nepal? (Yes / no / don't know)

What time is it broadcast (_____) (correct answer = 18:40–18:55)

How often is it broadcast? (_____) (correct answer = daily)

How many days a week do you listen to the programme? (7 / 6 / 5 / 4 / 3 / 2 / 1 / once every 2 weeks / once a month / less than once a month)

What topics does the agriculture programme cover? (_____)

Farmers' opinion of ACD radio programmes

What do farmers think of the ACD programmes?

The agriculture programme is different from day to day. Which is your favourite type of programme? Which is your second favourite? (Sunday: Farming activities / Monday: Question-and-answer / Tuesday: Group discussion / Wednesday: Interview / Thursday: Livestock / Friday: Old Lady and JT / Saturday: Farming activities)

What do you think of the agriculture programme? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- The agriculture programme is an important source of new information for me.*
- The agriculture programme reminds me of things I have forgotten.*
- The extension worker mentions the agriculture programme during meetings with farmers.*
- I enjoy listening to the agriculture programme.*
- I find the agriculture programme useful.*
- I find the agriculture programme easy to understand.*

Comparison of ACD programme with other programmes

Which programmes do farmers prefer?

What other programmes do you listen to on the radio? (Music / news / sports / information / drama)

How often do you listen to each of these programmes? (questionnaire should give the names of several educational and development programmes, including the drama series "Service Brings Reward", "Cut Your Coat According to Your Cloth" and other development information programmes) (7 days a week / 6 / 5 / 4 / 3 / 2 / 1 / once every 2 weeks / once a month / less than once a month)

Which of these programmes do you like the most? (Questionnaire should list the names of these programmes, plus the agriculture programme).

Suggested improvements to programmes

What subjects would farmers like to see covered by the radio programmes? What improvements in the programmes can they suggest? What time of day would they like to hear the programmes?

How might the agriculture programme be improved? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- The agriculture programme should use drama, like "Cut Your Coat According to Your Cloth".*
- The programme should be repeated so people can listen if they missed the first broadcast.*
- The agriculture programme should use simpler language than at present.*
- The agriculture programme should have more interviews with scientists than at present.*
- The agriculture programme should have more interviews with farmers than at present.*
- The agriculture programme should be in the local language (_____).*

What time of day should the agriculture programme be broadcast? (_____)

What new topics would you like to see covered by the agriculture programme? (_____)

How else might the agriculture programme be improved? (_____)

Television

Farmers' exposure to television

Do they watch TV?

Do you have access to a working TV? (Have own working set in house / watch neighbour's set / watch in shop or other public place / no)

How many days a week do you watch TV? (7 / 6 / 5 / 4 / 3 / 2 / 1 / less than once a week)

How many hours a day do you watch TV? (8 or more / 7 / 5 / 3 / 1 / less than 1)

What channels do you watch? (Nepal TV, / Indian TV / _____)

Do they watch the agriculture programme?

Do you know the agriculture programme on TV Nepal? (Yes / no / don't know)

What time is it broadcast (_____)

How often is it broadcast? (_____)

How often do you watch the programme? (every week / every 2 weeks / once a month / once in 2 months / less than once in 2 months)

What topics does the agriculture programme cover? (_____)

Farmers' opinion of TV programmes

What do farmers think of the programmes? (Note: it may be possible to distinguish AICC programmes (mostly field-based) from others in the series (mostly studio-based) with these questions.

The agriculture programme is different from day to day. Which is your favourite type of programme? Which is your second favourite? (studio discussions / interviews with farmers / ...[list other programme formats])

What do you think of the agriculture programme? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- The agriculture programme is an important source of new information for me.*
- The agriculture programme reminds me of things I have forgotten.*
- The extension worker mentions the agriculture programme during meetings with farmers.*
- I enjoy watching the agriculture programme.*
- I find the agriculture programme useful.*
- I find the agriculture programme easy to understand.*

Comparison of ACD programme with other programmes

Which programmes do farmers prefer?

What other programmes do you watch on TV? (Music / news / sports / information / drama / films)

How often do you watch each of these programmes? (questionnaire should give the names of several educational and development programmes) (7 days a week / 6 / 5 / 4 / 3 / 2 / 1 / once every 2 weeks / once a month / less than once a month)

Which of these programmes do you like the most? (Questionnaire should list the names of these programmes, plus the agriculture programme).

Suggested improvements to programmes

What subjects would farmers like to see covered by the TV programmes? What improvements in the programmes can they suggest? What time of day would they like to hear the programmes?

How might the agriculture programme be improved? Indicate whether you agree or disagree with the following statements (all scored on scale Strongly agree / agree / somewhat agree / neutral / somewhat disagree / disagree / strongly disagree):

- The agriculture programme should use drama/ docu-drama/documentary/magazine format.*
- The programme should be repeated so people can watch if they missed the first broadcast.*
- The agriculture programme should use simpler language than at present.*

- *The agriculture programme should have more interviews with scientists than at present.*
- *The agriculture programme should have more interviews with farmers than at present.*

What time of day should the agriculture programme be broadcast? (_____)

*What new topics would you like to see covered by the agriculture programme?
(_____)*

How else might the agriculture programme be improved? (_____)

Appendix 2

Report of joint AICC/NARC workshop to produce extension/information materials

4–8 September 2000

The five-day workshop was held at the Centre for Economic Development and Administration (CEDA), Tribhuvan University, Kirtipur. Some 50 participants from NARC, AICC, the departments of agriculture and livestock services, district agricultural offices, IAAS Rampur, and NGOs took part. Green Valley Consult, a consulting firm, provided logistical services on behalf of CEDA. Except for interventions by the international consultant, the workshop was held entirely in Nepali, and all materials produced were in Nepali.

The workshop was organized jointly by AICC and NARC, with implementation (editing, art, computers, logistics, catering) contracted out to CEDA.

Objectives

The workshop objectives were to:

- Develop information materials for use by farmers, extension, NGOs and the private sector.
- Develop an improved mechanism to prepare information materials.
- Train AICC and NARC staff how to develop user-friendly extension materials.
- Improve linkages among NARC, AICC, Ministry of Agriculture and NGOs.

Procedure

Before the workshop

The steering committee drew up a list of 50 potential topics on various aspects of agriculture, and then selected 17 of these as being high priority for preparation of extension materials. The committee invited authors to prepare draft manuscripts on each of these topics, and sent them guidelines on the type of manuscript required (short, simple style, etc.). Manuscripts were received for 16 of the 17 topics:

Title	Author
• Wheat cultivation with zero tillage	Janam Jaya Tripathi
• Integrated pest management	Sarad Prasad Marahatha
• Organization and effective mobilization of farmers' groups	Krashna Chandra Sharma
• Parasite control in farm animals	Rabati Man Shrestha

Title	Author
• Sericulture: some practical information	Ram Bahadur Thapa
• Green fodder round the year	Indra Kamal Aryal
• Fruit processing: some local methods	Rajendra Acharya
• Off-season vegetable production	Hhul Prasad Subedi
• Mushroom cultivation	Keshatri Laxmi Manandhar
• Zoonotic disease control	Gyanendra Gangol
• Breeding management in goats and pigs	Shyam Paudel
• Integrated soil and fertility management	Bhaba Prasad Tripathi
• Techniques for increasing fish production	Rajendra Dhital
• Baby corn cultivation for income	Krishna Adhikari
• Paddy seed selection: some simple techniques	Bhola Man Singh Basnet
• Potato cultivation from true seed	Tara Lama

Workshop days 1 and 2 (morning)

The authors in turn presented their manuscripts to the other participants. After each presentation, the participants commented on the manuscript, and the author noted changes to be made. The author then discussed how to improve the manuscript with an editor, and commissioned artwork from an artist. The corrections were entered into a computer, and a second draft was produced.

Days 2 (afternoon) and 3

Each author presented the second draft of his or her manuscript to the participants, who had another chance to comment on and critique the text and illustrations. The author, editor and artist then revised the materials again, producing a third draft.

Day 4

The participants (including editors and artists) went to the field to pretest the materials with groups of farmers. They noted the farmers' comments, and on return to the workshop site, the authors, editors and artists began incorporating these into the drafts (resulting in draft 4).

Day 5

The authors, editors and artists completed the fourth draft of the manuscripts, and consulted with other participants for any final comments. These drafts were submitted to AICC for publication in its regular publications programme.

The initial timetable for the workshop is given in **Appendix 3**. This timetable was flexible: it revised several times during the workshop to cater to the availability of authors and editors, and the different speeds at which authors, editors and artists were able to revise the papers.

Workshop process

Days 1–2

Draft 1
Present
Critique

Edit
Illustrate

Day 3

Draft 2
Present
Critique

Edit
Illustrate

Day 4

Draft 3
Pre-test

Day 5

Edit
Illustrate

Draft 4
Finalize
Layout
Print
Distribute

The sheet used to track manuscripts during the workshop is given in **Appendix 4**. Maintaining this sheet is important to ensure that everyone knows what they are supposed to be doing, and to make sure that manuscripts and artwork do not get lost.

Workshop outputs

The workshop outputs were:

- **Draft print materials** (booklets, leaflets, brochures, posters) on the 16 topics. These drafts have been repeatedly critiqued by scientists, extension workers and farmers, and revised accordingly. AICC has undertaken to include them in its regular publication programme.
- **Workshop mechanism** to produce materials jointly by research and extension. Both AICC and NARC/CPDD managers and staff expressed interest in holding similar workshops in the future, possibly on a smaller scale, on a more focused range of topics, perhaps at regional offices.
- **Trained staff.** Four of the six editors were from AICC (3) or NARC (1) (the other two were subcontracted by CEDA). The AICC chief played a key role in coordinating the workshop, and attended throughout. Several other AICC staff also participated in the workshop. Eight senior staff from NARC (including the head of CPDD) participated, several of them as authors.
- **Enhanced collaboration** among NARC, AICC, Ministry of Agriculture and NGOs. Throughout the workshop, participants had the opportunity to get to know each other, exchange information and views, and focus on a common objective. It is hoped that the relationships thus forged will continue to bear fruit in the future.

AICC radio staff took the opportunity to interview several participants for programmes to include in AICC's regular farm radio broadcasts. An AICC team shot footage for a planned training video on the process, but equipment defects meant that the footage was unusable.

Role of consultants

This workshop process was an adaptation of a process developed by the International Institute of Rural Reconstruction (IIRR) in the Philippines. IIRR had conducted a similar, but larger workshop in Nepal in 1992 in association with ICIMOD and the Nepal Rural Reconstruction Association, but the process was unknown to all but one of the current participants.

Before and during the workshop, the consultants provided guidelines on how to implement the workshop, assisted in the selection of topics, contacted authors, and gave them instructions on how to prepare the manuscripts. These guidelines are given in our first report (September 1999, available at <http://www.netcologne.de/~nc-mundypa/current#arep>). During the workshop itself, they introduced the process to the participants, guided the organizers, editors, artists and computer staff through each stage, and facilitated procedures as required. Guidelines for presentations, editing and pre-testing are given in **Appendices 5 to 7**. Guidelines for a role-play exercise for pre-testing are contained in **Appendix 8**.

In addition, the consultants drafted a script for the planned training video (**Appendix 9**).

Evaluation

The workshop exceeded the expectations of the consultants, AICC management and the participants themselves. All the objectives were met, and the participants devoted an enormous amount of energy, creativity and critical thinking to preparing and revising the materials. The participants gave very positive feedback, and made numerous suggestions on how to improve and adapt the workshop process in the future.

A copy of the evaluation form and a transcript of the comments and the scores are given in [Appendices 10 and 11](#).

The participants commented favourably on the openness of their fellow participants to suggestions. They appreciated the participatory nature of the workshop, as it gave them an opportunity to discuss manuscripts with researchers, extension personnel and (during the pre-test) with farmers.

Critical feedback focused mainly on the logistics of the workshop: its duration (5 days, which many felt was too long), time management and coordination, and problems with food and transport. Participants also felt that there should have been more artists (the two artists were very busy throughout), that the topics should have been more carefully selected and focused, and that pre-test could have been better organized.

Of 36 responses received, both the workshop process and the outputs received a median score of 8 on a 10-point scale (1 = poor, 10 = excellent). Organization, logistics and support received a median score of 6, while the workshop as a whole was given a median score of 7.

On the final day of the workshop, participants spontaneously began discussing ways of adapting the workshop process for their own situation. For example, one suggested that authors should pass copies of their draft manuscripts to a group of their colleagues for suggestions and critique. Another suggested taking draft extension materials to district extension offices and discussing them with the extension personnel there.

The participants also saw the need for artwork in extension materials, and saw the benefits of involving artists in close interaction with authors and audience to ensure the artwork was both correct and communicative.

The participants strongly recommended that similar workshops be held in the future (with adaptations, see below). Both AICC and NARC/CPDD have expressed interest in doing so.

Recommendations

AICC and NARC should consider the following.

- Holding workshops on a **regular** basis – perhaps several times a year – to generate extension materials for publication by AICC. Because they are a fast and efficient way of producing materials, it should be possible to generate the bulk of AICC's publication output through workshops. A core team made up of NARC and AICC staff could provide the necessary expertise and impetus.
- Holding regular workshops in **each region**, with the regional research station collaborating with the regional communication unit to organize the workshop. Participants would include researchers, university staff, extension personnel and NGO

staff. Initial support from AICC and NARC headquarters would be necessary to introduce the workshop process to the regional staff, playing a role similar to that played by the consultants in this workshop.

- Widening **participation** in the workshops to include more staff of other organisations, especially NGOs and international research institutions, both as authors and participants.
- Focusing individual workshops on **narrower themes**, such as veterinary medicine or marketing. This would enable bringing a more specialized group of participants together, allowing greater interaction and stimulating networking after the workshop.
- Using the workshops to produce drafts of a **wider range of materials**: posters, radio programmes, course curricula (in association with the Centre for Agricultural Training), news stories, etc.
- Focusing the topics on **'campaign'** issues. For example, the Ministry/AICC may choose to develop a three-month information campaign to promote off-season vegetables. A workshop can be used to develop materials for this campaign: leaflets, brochures, radio programmes, videos, news stories, etc.

Summary

AICC/NARC should hold regular 3-day workshops both at the national level and in each region, involving a smaller number of participants with a wider range of backgrounds and covering a smaller number of topics, focused on a single theme, and producing a range of extension and media materials. The resulting materials should be included in a focused media/extension campaign on the theme.

With several such workshops a year, AICC should be able use this method to generate a significant proportion of the manuscripts for its regular publication programme (currently 60–70 titles a year).

A typical workshop might look something like this:

- **Venue**: NARC station, Nepalgunj.
- **Organizers**: AICC, NARC-Nepalgunj.
- **Participants**: 25: 5 research, 4 extension, 4 NGO, 5 farmers, 4 firms, 3 communication (from regional communication unit Surkhet, and communication unit NARC-Nepalgunj).
- **Topics**: 10 (4 by research, 2 by extension, 2 by NGOs, 1 by farmer, 1 by firm).
- **Theme**: Vegetable production.
- **Outputs**: 5 brochures, 3 leaflets, 4 posters, 2 radio programmes, 1 video script.
- **Staff**: 3–4 editors (could be drawn from AICC's regional communication units, among the participants themselves, or small groups of participants could get together to edit the manuscripts); 2 artists; 3 computer operators and photocopy staff; 2 facilitators to organize logistics and coordinate activities.
- **Equipment**: 3 computers, laser printer, photocopier, overhead projector.
- **Duration**: 3 days:

- Day 1 – Opening, 1st draft presentations.
- Day 2 – Revisions to 1st drafts in small groups, production of 2nd drafts.
- Day 3 – 2nd draft presentations, final revisions, closing.

No field pre-test would be needed if the farmers are present throughout and are able to provide feedback on each manuscript.

For future large-scale workshops, it will still be necessary for AICC and NARC to contract out certain services, especially art, computer services, transport and catering, as neither institution has sufficient capability in these areas. However, AICC and NARC should between them be able to handle the bulk of the editing and other aspects the logistics without outside support. For smaller workshops, such as the 3-day workshop suggested above, AICC and NARC should be able to handle most logistics internally.

The participants and staff of the just-completed workshop have learned the approach, and could be invited to guide the first workshops in each region. It would be unrealistic to expect regional NARC/AICC units to be able to handle such a workshop without this initial assistance.

Some ideas for further developing the workshop process:

- Holding **farmer-level workshops**. Within a district, the extension office and NGOs could facilitate workshops where extensionists and farmers produce extension materials such as posters and brochures. This would be particularly appropriate in people-centred programmes such as integrated pest management, where a strong farmers group could develop materials that could be used not only to reinforce their own learning, but also be shared with other farmer groups in different areas. For such farmer-based workshops, it may not be practical to have support such as computers, editors and artists; instead, the materials can be hand-written (for keyboarding later if necessary), and talented participants can be asked to draw illustrations.
- Adapting the **principles** of the workshops to other types of activity. These principles include:
 - Involving members of the intended audience (farmers and extension workers) in developing the materials.
 - Seeking comments and criticism from other specialists, and being open to the changes they suggest.
 - Bringing together key resources and skills (authors, artists, editors, computer staff) at a single time, fostering interaction and creativity, and encouraging them to produce the output by a set deadline.
 - Allocating roles, tasks and goals, providing participants with the resources they need, and organizing them so they can achieve their goals.
- Placing the workshop outputs on the **Internet** for use by others (see [Appendix 14](#)).

Appendix 3

Initial workshop timetable

	from	09:00	09:30	11:00	11:45	12:30	13:00	13:45	14:30	15:15	15:30	16:15	
	to	09:30	11:00	11:45	12:30	13:00	13:45	14:30	15:15	15:30	16:15	17:00	
Monday	4-Sep	Registration	Inauguration	Orientation	Topic 1 (Wheat)	Tiffin	Topic 2 (IPM)	Group A: Topic 3 (Farmers groups)	Topic 7 (Fruit)	Tea	Topic 8 (Vegetables)	Plenary discussion	
							Group B: Topic 4 (Parasites)	Topic 5 (Sericulture)	Topic 6 (Fodder)				
	from	09:00	09:45	10:30	10:45	11:30	12:15	13:00	13:45	14:30	15:15	15:30	16:15
	to	09:45	10:30	10:45	11:30	12:15	13:00	13:45	14:30	15:15	15:30	16:15	17:00
Tuesday	5-Sep	Group A: Topic 12 (Fertilizers)	Topic 15 (Baby corn)	Tea	Topic 16 (Rice)	Topic 17 (Potato)	Tiffin	<i>Topic 1 2nd draft (Wheat)</i>	<i>Topic 2 2nd draft (IPM)</i>	Group A: <i>Topic 3 (Farmers groups)</i>	Tea	<i>Topic 7 (Fruit)</i>	<i>Topic 8 (Vegetables)</i>
		Group B: Topic 9 (Mushroom)	Topic 10 (Animal health)		Topic 11 (Goats, pigs)	Topic 13 (Fish)				Group B: <i>Topic 4 (Parasites)</i>		<i>Topic 5 (Sericulture)</i>	<i>Topic 6 (Fodder)</i>
Wednesday	6-Sep	Group A: <i>Topic 12 (Fertilizers)</i>	<i>Topic 15 (Baby corn)</i>	Tea	<i>Topic 16 (Rice)</i>	<i>Topic 17 (Potato)</i>	Tiffin	Preparation for pretesting (plenary)		Preparation of 3rd draft	Tea	Preparation of 3rd draft	
		Group B: <i>Topic 9 (Mushroom)</i>	<i>Topic 10 (Animal health)</i>		<i>Topic 11 (Goats, pigs)</i>	<i>Topic 13 (Fish)</i>							
Thursday	7-Sep	Field test of 3rd draft											
Friday	8-Sep	Revisions based on field test feedback	Tea	Revisions based on field test feedback	Tiffin	Final draft presentations				Tea	Final draft presentations	Closing	

1st drafts in normal type

2nd drafts in italics

Appendix 4

Manuscript tracking sheet

Columns can be added to this sheet (maintained in Word or Excel) as required – for example, to track the current status of the hard or soft copies of each manuscript.

Topic no.	Filename	Author English	Group	Date 1st pres	Time 1st pres	Editor	Artist	Date 2nd pres	Time 2nd pres	Status
1	001WHEAT	Janam Jaya Tripathu	Ap	04-Sep	11:45	S G Shrestha	Harihar Shrestha	05-Sep	13:00	
2	002IPM	Sarad Prasad Marahatha	Bp	04-Sep	13:00	H Kafle	Kiran Acharya	05-Sep	13:45	
3	003GROUP	Krashtra Chandra Sharma	A	04-Sep	13:45	T N Ghimire	Harihar Shrestha	05-Sep	14:30	
7	007FRUIT	Rajendra Acharya	A	04-Sep	14:30	G Acharya	Harihar Shrestha	05-Sep	15:30	
8	008VEGETABLE	Hhul Prasad Subedi	A	04-Sep	15:30	D N Manandhar	Harihar Shrestha	05-Sep	16:15	
12	012FERTILIZER	Bhaba Prasad Tripathi	A	05-Sep	09:00	T N Ghimire	Harihar Shrestha	06-Sep	09:00	
15	015BABYCORN	Krishna Adhikari	A	05-Sep	09:45	G Acharya	Harihar Shrestha	06-Sep	09:45	
16	016RICE	Bhola Man Basnet	A	05-Sep	10:45	D N Manandhar	Harihar Shrestha	06-Sep	10:45	
17	017POTATO	Tara Lama	A	05-Sep	11:30	T N Ghimire	Harihar Shrestha	06-Sep	11:30	
4	004PARASITE	Rabati Man Shrestha	B	04-Sep	13:45	K R Bhatta	Kiran Acharya	05-Sep	14:30	
5	005SERICULTURE	Ram Bahadur Thapa	B	04-Sep	14:30	H Kafle	Kiran Acharya	05-Sep	15:30	
6	006FODDER	Indra Kamal Aryal	B	04-Sep	15:30	R Timilshina	Kiran Acharya	05-Sep	16:15	
9	009MUSHROOM	Keshatri Laxmi Manandhar	B	05-Sep	09:00	G Acharya	Kiran Acharya	06-Sep	09:00	
10	010ANIMAL	Gyanendra Gangol	B	05-Sep	09:45	H Kafle	Kiran Acharya	06-Sep	09:45	
11	011GOATS	Shyam Paudel	B	05-Sep	10:45	R Timilshina	Kiran Acharya	06-Sep	10:45	
13	013FISH	Rajendra Dhital	B	05-Sep	11:30	K R Bhatta	Kiran Acharya	06-Sep	11:30	

Appendix 5

Guidelines for presentations

Please follow the guidelines below when presenting your draft materials at the workshop.

Workshop process

The workshop is designed to allow printed materials to be developed, revised and put into final form as quickly as possible, taking full advantage of the expertise of the various participants. The workshop is very different from the scientific conferences you may be familiar with.

The success of the workshop depends largely on the willingness of the participants to contribute ideas, and on the openness of the authors to accept comments in a positive manner.

During the workshop, please be prepared to allow the contents of your drafts to change!

Days 1–2

You will have about 20 minutes to present **draft 1** of your paper. You should present only those materials that are to be included in the printed version (but please do bring with you slides and other materials that may be useful in revising the draft). Copies of each draft will also be provided to all other participants, who will be invited to comment on the draft and suggest revisions. You will then work with an editor and an artist to revise and illustrate your draft.

It is possible (even likely) that your manuscript undergoes major changes as a result. Please be open to suggestions and critique, and be ready to incorporate new ideas into the manuscript, or to delete or substantially alter information already there. This results in **draft 2**.

While you are not presenting or editing your manuscript, please participate in the workshop by attending presentations and commenting on others' manuscripts.

Day 3

You be asked to present draft 2 of your manuscript to the audience. Again, the audience will have the opportunity to critique the draft and suggest further changes. Again, please work with the editor and artist to make any changes necessary. This results in **draft 3**.

Day 4

We will take the draft 3 manuscripts into the field and pre-test them with groups of farmers. See the separate guidelines on how to do this.

Day 5

Most of the day will be spent incorporating the feedback from the pre-test into the manuscripts. To do this, you should work with the editor, artist and a small group of other participants to revise the draft. As soon as the revisions have been incorporated, please provide the manuscript to the workshop staff, who will incorporate the changes on the computer. This results in **draft 4**.

Illustrations

Please provide illustrations where appropriate. Photos, sketches, and illustrations in books are useful for the artists to refer to during the workshop. Please bring them with you.

Illustrations should be clear and easy for farmers to understand.

During the workshop, the participants will generate ideas for illustrations, which the artists will draw. The artists can also redraw pictures if necessary.

Reference materials

Please bring with you any books and other reference materials that may be useful in revising the manuscript.

Visual aids

You may wish to bring overhead transparencies of your manuscript with you. If so, please make sure that they are legible when projected: a minimum type size of 24 points (a lowercase *x* is 4 mm high). Normal type is too small (*x* is 2 mm high or less).

If you cannot bring transparencies with you, the workshop staff can prepare transparencies of the headings, major points, and illustrations. Please let the facilitator know well before your presentation if you'd like the staff to do this.

If you have slides, please remember that these cannot appear in the final publication. You should therefore not use slides when giving your presentation. However, please do bring any relevant slides to show the artists examples of pictures they might draw.

After the workshop

The Agriculture Information and Communication Centre will publish the completed manuscripts as part of its regular publication series. Some further minor editing of the text and illustrations may be necessary to ensure the manuscripts fit AICC's requirements.

Appendix 6

Guidelines for editing

Please follow the guidelines below when editing draft materials at the workshop.

Audience

Please bear in mind that the information materials will be aimed at literate farmers and field-level extension workers.

Many **farmers** have limited formal education, and many have not learned to read and write. However, in each household there is probably someone who can read simple language. The extension materials are aimed at these people.

Field-level extension workers typically have high-school education, and are not professional scientists. Some have quite a lot of experience in agriculture and extension; others have much less. They spend much of their time in the field working with rural people. Most face a severe shortage of information they can use (a) as background in their work, and (b) as teaching materials they can use when facilitating meetings with farmers.

The materials are **not** aimed at scientists and researchers, so the 'scientific' format used in journals is not appropriate. Nor are they aimed at extension specialists with degrees in agriculture, so complicated explanations and details that are not directly relevant to the field should be avoided.

Content

The materials should provide the readers with information that is relevant to their work. For example, farmers should be able to use the information directly in their fields or with their animals.

Go through the manuscript section by section, paragraph by paragraph, and ask the following seven questions.

- Is the content relevant?
- Is it correct?
- Is it clear?
- Is it complete?
- Is it concise?
- Is it concrete?
- Is it consistent?

Is the content relevant?

- Is the overall topic relevant to the audience? (If not, rewrite it – or choose a new topic.)

- Does the manuscript deal with an important problem, felt over a wide area? (If not, change the focus.)
- Does it tell the readers something they already know well? (Consider deleting this information.)
- Is each item of information useful and relevant to the readers' work? (If not, change it or delete it.)
- Is the information specific enough to be useful? (If it's too general, sharpen it by providing details.)

Is it correct?

- Is the information truthful and accurate?
- Are the statements scientifically justifiable?
- Are the spelling, grammar and punctuation correct? (Eliminate the problems.)

Is it clear?

- Will the reader be able to understand the information easily? For example, are there scientific terms or jargon that can be stated in simpler language? (Get rid of the jargon.)
- Are the paragraphs and sentences too long? (Shorten them. Delete unnecessary words, and spilt sentences into parts.)
- Is the language too formal? (Make it more conversational.)

Is it complete?

- Is there enough information to be useful? For example, could the reader use the technology successfully after following the instructions in the manuscript?
- Are any important items omitted?
- Are all the steps in a process covered in enough detail?

Is it concise?

- Does it unnecessarily repeat information? Does it use ten words when two will do? (Delete the unneeded words.)
- Is any information unnecessary? (Cut it out.)

Is it concrete?

- Does the manuscript say when a particular technology is likely to be appropriate, and when it should not be used (e.g., on which soils, at what altitude)?
- Does it give an indication of costs and benefits of the technology? (But don't provide information on prices if these are likely to change quickly.)

- After reading the publication, will the reader be able to put the new ideas into practice – or is more information needed? (Provide the missing information.)

Is it consistent?

- Does the same word mean the same thing in different parts of the text?
- Is the style consistent? For example, are bullets or numbers used correctly in lists? Are the headings at the correct levels?
- Is the level of language the same throughout? (E.g., not simple language in one part but highly technical in another.)

Length

The finished manuscript should fit into one of AICC's existing publication series:

- **Booklets:** 12 pages of text (on A5 paper) with 1 or more line drawings on each two-page spread. Aimed mainly at extension workers; also made available to literate farmers. Maximum 3600 words.
- **Leaflets:** Single sheet (two sides of paper), with 1 line drawing on each side. Simpler language, aimed at farmers, and at extension workers to use with farmers. Maximum 600 words.
- **Folders:** Single sheet, folded twice to form a brochure. 2–3 line drawings per side. Cover (1/3 page) includes title and line drawing. Maximum 500 words.
- **Posters:** Single large sheet, in two or more colours. Can be a single large illustration with very limited amount of text, intended to be viewed from a distance. Or can be a series of smaller illustrations with text, showing steps or aspects of a process, to be viewed close up.

Appendix 7

Guidelines for pre-testing

Why pre-test?

Organizations often produce information materials (booklets, brochures, posters) for an audience, without first testing whether the audience understands them and can make use of them. There are several risks in this:

- The readers may misunderstand the information, so ignore it – or do the opposite of what is intended.
- The materials may be a waste of effort and money.
- The organization producing the information materials may lose credibility.

Possible problems

Here are some possible problems in printed materials. The pre-test should identify whether these are indeed a problem, and find ways to correct them.

Text

- The audience may not understand the information. The text may be too complex. It may be written in the wrong language (the national language, not a local one) or at the wrong level of language (formal rather than informal). It may use words that the readers do not understand. They may even understand the opposite of what is intended.
- The information may not be relevant to the audience – the readers may not be interested in it. A brochure intended for farmers in the hills will be of little interest to farmers in the plains.
- Extension workers and farmers have very different information needs. An extension worker needs to know ‘how can I work with farmers to grow improved crop varieties?’ A farmer asks questions like ‘what varieties can I plant that will make me money?’
- There may be errors or gaps in the materials that the author and editor have not spotted.
- Farmers may be unfamiliar with scientific concepts and terms such as germ theory (diseases are caused by micro-organisms), soil chemistry (N, P, K, pH), ecology (species, food webs, life cycles, environmental interactions) and economics (profit and loss, accounting, cost-benefit analysis, net present value). They may fail to understand information based on these ideas.
- They may not understand tables: that the items in a column relate to the heading of the column, and that items in each row relate to the row heading.

- They may not understand measurements such as '3.5 m' or '2 litres'. Local measures such as 'three paces of a tall man' or '3 beer bottles full' may be better.

Pictures

- The audience may fail to 'read' pictures correctly. This is particularly a problem with people with limited education: they may look at a picture of a cow and 'see' a picture of a rabbit.
- They may fail to relate to a picture. If they see picture showing people wearing a certain type of dress, they may think that the picture is not relevant to them, as they do not wear such clothes.
- They may see details that are wrong. Farmers are experts in their own fields, and may be quick to spot mistakes in a picture.
- They may not understand diagrams: flow charts, pie charts or graphs.
- They may not understand scale. People who have never seen a microscope and do not understand germ theory may not understand a picture of bacteria. They may interpret an enlarged picture of a mosquito as just that – a giant mosquito – 'not a problem here'.
- They may not see perspective in a drawing. Educated people are taught that bigger things in a picture are closer than smaller things. Given a picture of a cow close by and an elephant in the distance, people with limited education may just see a huge cow and a tiny elephant.
- They may not understand cutouts. A picture may show a plant with the soil cut away to show the roots. Farmers may see this as a suggestion to leave the roots bare of soil.
- People may understand a picture of a head or hand as the dismembered parts of a body. It may be necessary to include the whole person in the picture.
- They may not understand the meaning of other conventions: arrows, numbers, symbols such as ✖ and ✓ ('bad' and 'good'), and speech bubbles. They may not understand that arrows are pointing in a certain direction, that a comic strip is meant to be read from right to left and from top to bottom, or that a caption refers to the picture above it.
- Photographs may be poor quality: out of focus, low contrast, or poorly composed. They may fail to show the subject clearly.
- Black-and-white line drawings may be unclear: it may be necessary to add one or two colours. For some subjects, such as pictures or pests or diseases, where colour is important, photographs rather than line drawings may be necessary (though they are much more expensive to reproduce).

Format

- The type may be too small, or in a font that is difficult to read.
- The text columns may be too wide, or too narrow.

- The format may be an inconvenient size or shape. Readers may prefer a single sheet they can pin on the wall, a booklet that can sit on a shelf, or a folder they can put in their pocket easily.
- Paper and binding problems: The binding may be flimsy, the paper may tear easily, the pages may stick together if they get wet.

Organizing a pre -test

Pre-testing is a way of identifying and avoiding these pitfalls, before going to the expense of printing many copies of the materials.

In a pre-test, the organization shows drafts of the materials to a sample of the intended audience – for example, a group of male farmers, of female farmers, or extension workers. They ask the group to look at the materials, read it, and respond to various questions (see below).

Preferably, the author, editor and artist should all be involved in the pre-test. The author can ensure that the changes are correct. The editor can make sure that the words are communicative. The artist can listen to the comments about the pictures, and make changes accordingly.

The purpose of a pre-test is not to test the respondents' knowledge, nor to teach them about a subject. The purpose is to find out how the information materials can be improved.

Read the materials to be pre-tested beforehand so you are familiar with them. Identify any particular problems you want to ask the respondents about: a certain picture, a table, technical terms that may be unfamiliar. But be open to the possibility that respondents may identify other items that you have not anticipated as problems.

Divide the pre-testers into small teams of two to four people each. Each team should have enough copies of the test materials for themselves and the farmers they will meet. Each team should be able to pre-test two to four different draft manuscripts with the respondents in 60–90 minutes.

Within each team, one person can take the lead asking questions, while the others observe and make notes on their copies of the draft.

Introduce yourselves to the group of respondents, explain that you want to ask their opinions about some draft information materials, and ask for their help. Ask to meet with between 5 and 10 people in one group. Ask to meet with both men and women. If the materials are aimed at literate people, ask (politely) to meet with those who can read and write.

If more people who wish to participate, consider splitting them into two or more smaller groups. It may be advisable to meet with women separately from the men, as they may be unwilling to express an opinion in mixed company.

If one person is dominating the discussion, consider taking him or her to one side for a separate interview. This will make sure his or her views are noted, but also gives the other participants a chance to be heard.

Try to keep the meeting to 60–90 minutes. The respondents may be busy, and it is not polite to take too much of their time.

If there is time, the team should meet with another group of respondents.

Order of subjects in a pre-test

Focus first on the headings and pictures, as this is what people look at first. Ask someone to read out the headings (this checks their reading ability). Ask the group what they understand by the heading.

Then focus on the pictures. Ask the respondents to look at each picture in turn, and to tell you what they see. Ask about specific details: What is this object? What is this person doing? What is the picture trying to tell you? Check on possible problem areas: scale, perspective, cutouts, parts of a body, and symbols such as →, ✕ and ✓.

If the respondents suggest changes in a picture, sketch the changes quickly, and ask if your sketch is an improvement.

After the pictures, focus on the text. Ask the respondents to read the text carefully. Go page by page, asking what they understand. Check on possible problem areas: technical terms, measurements, complex ideas, tables.

Write notes in the margins to record the respondents' comments.

At the end, ask the respondents what they think of the materials as a whole. It is useful for them? Do they find it interesting and relevant to their work? Do they find it attractive? How could it be improved?

Thank the respondents and leave the materials with them as a measure of gratitude.

Types of questions

One of the basic rules of communication is that 'the audience is always right'. If several readers do not understand a leaflet, that does not mean that the readers are ignorant or stupid – but the leaflet is not clear enough. Revise the text and illustrations to make them even clearer.

Ask respondents what they understand by possibly unfamiliar terms. For example, 'integrated pest management', 'zero-tillage', 'sustainable agriculture', 'haemorrhagic septicaemia'.

Poor: 'What is "integrated pest management"?'

Better: 'Have you heard the phrase "integrated pest management" before? What do you think it means?'

Do not make the readers feel as if they are participating in a quiz, or are at school being examined. The aim is *not* to find out how much they know about the subject, and to blame them if they do not score full marks.

Instead, try to make them feel that they are helping you revise some materials so that others will be able to understand them.

If the farmer gives a ‘wrong’ answer, don’t make it seem as if he or she is ‘wrong’. Ask if anyone else has a different answer. If it is an important point, give the correct answer, but say that the materials need to be changed to make it clearer.

A second rule of communication is ‘you can’t please everyone all the time’. If a few readers misunderstand a leaflet, but the majority understand it perfectly, it may not be necessary to make major changes. But be sensitive to the possibility that the majority may share the minority’s doubts, but may be too polite to say so.

Listen to the questions that the farmers have about the subject. Their questions may reveal areas of knowledge, misconceptions or ignorance that should be (or need not be) covered in the materials.

Remember that the materials you are testing should be able to stand by themselves, without the need for someone to explain them. So do not explain the materials to the farmers before asking questions. Ask them to read sections (perhaps out loud, to focus everyone’s attention and to check on problem words). Then ask about that section.

The farmers may ask you questions. Answer the questions briefly, as far as you can, make a note of the question (perhaps the text should be adapted to include the answer). Rather than interrupting the pre-test, if necessary suggest that you give a detailed answer after the pre-test itself.

Avoid asking biased or leading questions.

Leading question: ‘Do you see a picture of an elephant here?’

Better: ‘What do you see in this picture?’

Leading question: ‘Do you understand that you should not spray insecticides?’

Better: ‘What do you think this booklet is telling you?’

Leading question: ‘This picture is better than that one, isn’t it?’

Better: ‘Which of these two pictures do you prefer?’

Appendix 8

Pre-testing role-play

Split the participants into three groups: ‘Ministry staff’, ‘farmers’, and ‘observers’.

Give each group a copy of the guidelines for their group. Ask each group to study their roles for 10 minutes, and to act them out as realistically as possible.

Give the ‘Ministry staff’ multiple copies of some extension leaflets – enough for themselves and half of the farmers, but not enough for all.

Ask each group to split into pairs: a pair of Ministry staff should meet a pair of farmers, observed by a pair of observers.

Give the ‘Ministry staff’ and ‘farmers’ 15 minutes to meet. The ‘observers’ sit to one side, watch and make notes, but should not intervene.

After the meeting, ask the participants to come out of their roles. Ask the ‘observers’ to describe what they saw. Then open the discussion for the ‘Ministry staff’ and ‘farmers’. What happened? What did they do? What did they feel? What went right and what went wrong? What did they learn?

Guidelines for ‘Ministry staff’

You are on the staff of the Ministry of Agriculture. You have been asked to pre-test a set of extension leaflets with a group of farmers in the Kathmandu Valley.

Arrangements have been made to meet the group at a certain time and place. You bring with you copies of the extension leaflets for each farmer to read. You have about 15 minutes to discuss the leaflets with the farmers.

You must find out:

- What do the farmers understand when they read the leaflets?
- What changes are needed to improve the leaflets?
- What suggestions do they have to make the leaflets easier to read and more informative?
- What suggestions do they have to make the leaflets more interesting and attractive?

After the meeting, you will be asked to comment on your experiences.

Guidelines for ‘farmers’

You are a member of a farmer group in the Kathmandu Valley. You have been asked to participate in a meeting with some staff from the Ministry, but you don’t know why. Arrangements have been made to meet the Ministry staff at a certain time and place.

Please bear the following in mind:

- You have attended only three years of schooling, and you cannot read very well. You find long words, long sentences and long paragraphs boring and confusing.
- You do not understand technical terms such as NPK, pH, species names, microorganisms (bacteria, viruses...), percentages, and metric measurements.
- There is a division between the men and women in the village. The men are confident, sit at the front of meetings, and (especially the older men) are ready to talk. The women tend to sit at the back and only speak when they are addressed directly.
- You do not have much time, and you are not very interested in helping the visiting Ministry staff. (After all, the Ministry staff have never helped you, so why should you help them?) Besides, one of you is afraid that a cow has just broken loose and has strayed into your rice field. Another has to get to an important meeting with the village chief. Another has to go to see a sick relative at the hospital.
- However, you want to be polite to the visitors, and you want them to go away happy. You will be pleased to agree with them if they seem to think something is good, even if you don't understand it yourself.

After the meeting, you will be asked to comment on your experiences.

Guidelines for 'observers'

A meeting has been arranged between some Ministry staff and a group of farmers to pre-test some extension materials. You are impartial observers of this meeting. You should watch what happens, and make notes, but you should not intervene in any way.

Things to look out for:

- The interactions between the staff and the farmers.
- Who talked? Who did not? Men? Women? Young? Old?
- Who had a leaflet to read? Who had to share? Who was not able to see a copy?
- Did the questions and answers reveal ways to improve the leaflet? What improvements were suggested?
- What did the Ministry staff do well? What should they have done differently?

After the meeting, you will be asked to comment on what you have seen.

Appendix 9

Draft video script on the workshop process

Audio	Video
<i>Music</i>	
	Leaflets and booklets are an important way of telling farmers about improved farming practices.
	But producing leaflets and booklets can take a long time.
	Someone has to write a draft text.
	Then someone edits the text.
	An artist draws illustrations.
	The publication is laid out.
	Then the draft is reviewed by other experts to make sure it is correct.
	The editor must check back with the author, and maybe again with the other experts.
	It can take months before the finished publication is ready.
<i>Music</i>	
	Now two agricultural institutions in Nepal have tested a new method of producing printed materials.
	The two institutions are the Agriculture Information and Communication Centre of the Ministry of Agriculture, and the Nepal Agricultural Research Centre.
	They use workshops to develop the materials, revise them, and put them into final form, as quickly as possible.
	The workshop takes advantage of the skills and experience of the various participants.
	Before the workshop, a steering committee lists potential topics and invites an author to write a first draft on

Audio

Video

each topic.

Each author is given guidelines: only so-and-so many pages, use simple language, write so farmers will understand.

Music

The authors bring the drafts they have written to the workshop.

Each author presents his or her draft paper, using overhead transparencies. The other participants give feedback and suggest revisions.

After the presentation, an editor helps the author revise the draft. An artist draws pictures.

Computer staff then scan the pictures and incorporate the changes. That produces a second draft.

Music

Meanwhile, other participants also present their papers. Each, in turn, works with the editors and artists to revise and illustrate the materials.

Each participant then presents his or her second draft a second time. This time, it looks different. There are pictures, the text is easier to understand.

Again, the audience gives feedback.

The authors and editors revise the text.

The artist redraws the pictures.

That results in a third draft.

Music

The participants then go out into the field.

They show the drafts to farmers, and ask for their reactions.

Do the farmers understand the text? What do they think of the pictures? Are the materials useful?

This feedback helps the participants
revise the drafts again, producing a fourth

Audio

Video

revise the drafts again, producing a fourth draft.

At the end of the workshop, the participants have a chance to give final comments on each draft.

The final version can be completed, printed and distributed soon after the workshop.

Music

The participants may include scientists, researchers, government personnel, teachers, NGO staff, extension agents, farmers and other local people.

These people have a wide range of skills and backgrounds. This ensures that many ideas are presented.

The workshop process is very different from seminars or scientific conferences. It is very flexible.

The repeated presentations, feedback and editing means papers can be revised substantially. Ideas can be validated by experts in the field.

The experts, editors, artists and computer staff are all working at the same time and place. They can produce finished materials far more quickly than usual.

And the participants get to know each other. They make friends. They develop networks that last long after the workshop itself.

Music

The first workshops were done in the Philippines by the International Institute of Rural Reconstruction.

Now the Ministry of Agriculture and the Nepal Agricultural Research Council are adapting this process for use in Nepal... for the benefit of Nepali farmers.

Music

Appendix 10

Workshop evaluation form

Please complete this form and return it to the workshop organizers.

- 1 Please write what you liked (☺) and disliked (☹) about the workshop in the spaces below.



-
- 2 Please write any additional comments or suggestions in the space below. For example, how might the workshop process be improved? Should similar workshops be conducted in the future? On what subjects?

-
- 3 What is your impression of the workshop? (Circle one number in each row.)

	<i>poor</i>								<i>excellent</i>	
a) Workshop process	1	2	3	4	5	6	7	8	9	10
b) Output	1	2	3	4	5	6	7	8	9	10
c) Organization, logistics, support	1	2	3	4	5	6	7	8	9	10
d) Workshop as a whole	1	2	3	4	5	6	7	8	9	10

Appendix 11

Results of evaluation

Evaluation question 1a

Please write what you **liked** (☺) about the workshop in the spaces below. (*Note: comments have been categorized and spelling errors corrected, but not otherwise edited.*)

Art

- Focus on illustrations
- Use of artists to make appropriate pictures is also very good

Field visit

- Field trip for practical is also effective
- Field visit
- Field visit
- Field visit and interaction
- Interaction with farmers
- Interaction with the farmers

Interaction, participation

- Comments and suggestions about the paper presented in the workshop
- Discussion
- Enough interaction within professionals
- Incorporation of different inputs
- Interaction among each other
- Interaction for the paper contents
- Interaction with target group as well
- It made us to interact with each other from different fields
- Linkage between extension and research maintained throughout the workshop
- More interaction
- Open discussions
- Participation in interaction
- Participatory
- Participatory
- Participatory discussion
- Participatory environment
- Presentation in the subject
- Scientists and editors worked very well
- Valuable suggestions incorporated into the texts
- Very good feedback to the author by this workshop

New experience

- New approach
- Process of workshop is new and interesting
- The objective of the workshop is unique for me
- The workshop has been a new type of experience

Organization

- Logistics and support personnel (Green Valley Consult) were amicable, friendly and helpful
- Logistics provided
- Organization
- Workshop organization

Output

- Author [can now be] confident [that] materials produced are client-oriented
- Exercise for materials is fruitful
- Finished product is achieved
- Fruitful output
- Output of the workshop will be in use in a short time
- Sufficient scope for improving the paper quality

Participants

- Dedication of participants
- Good to be a part of a group of different distinguished personnel
- Interaction with multidisciplinary groups
- Involvement of private sector
- Most of authors were dynamic
- Multisectoral participation
- Paper presenters were experts
- Participants engaged properly in their job
- Participants from wide field helped to share the experience

- Participants: mostly experienced and cooperative, friendly people
- Such kind of multidisciplinary units for working this objective is very excellent
- The workshop was well organized, including researchers, extension workers and NGO, where feedback from the participants were obtained

Pre-test

- Field pre-test
- Pre-test
- Pre-test process
- Testing the papers with the farmers

Workshop process

- AICC interest for info improvement
- Diverse audience/clients
- Dividing the topics into two and presenting them in two groups
- First of its type
- Good approach
- Integrated approach, for example paper writers, editors and artists working together
- Interaction in a group
- It is good that the comments/suggestions were incorporated in second and third draft
- It is good to have a seminar before publication to refine the material
- Officially the first workshop of its type. Very good initiation
- Printing materials are also examined by farmers themselves according to their wishes and knowledge
- Process for preparing materials are also very good
- Process of workshop
- Process/methodology
- Realistic approach
- Re-presentation and discussion
- Subject and technique of workshop is good
- The workshop process and methodology
- The workshop technique is excellent
- This type of workshop is very appropriate for developing countries like Nepal; the aim and objective is

very good for those who are engaged in extension work

- This workshop is success in the process of making accurate reading materials which may be useful to the farmers' groups
- Ultimately the workshop seems as quite success
- Workshop procedure really helps to refine the manuscript
- Workshop process
- Workshop process worked well

Skills

- Developed some of the basic concepts about how to write leaflets, booklets, and drawings useful to farmers
- It also taught for writing the training materials meant for farmers (based on their actual problem and practice)
- Knew some of the criteria when writing the booklets, leaflets and posters for the farmers – criteria which should be considered as a main parameter of publications
- Writer is well acquainted [with] the deficiency of the paper

Time

- All the time engaged
- Short time covered many aspects
- Time is sufficient

Topics

- Course content
- Subject matter
- Subject matter selected
- Workshop process subjects
- Workshop subject itself was selected properly

Venue

- Venue
- Venue: good enough for plenary and group exercises
- Workshop place distance from city is good

Evaluation question 1b

Please write what you **disliked** (☹) about the workshop in the spaces below.

Art

- Artist and computer insufficient
- Artist few in number
- Lack of audio-visuals for artists to draw exact sketch/figures
- Less numbers of artists was a shortcoming. Sometimes delayed in the workshop
- Number of artists was not enough to satisfy the volume of [...?]. It was especially felt in Group B as there were more drawing and sketches
- Shortage of artists

Honorarium

- Allowance is very minimal
- Incentive
- Very poor honorarium to participant (Rp 200/day)

Logistics

- Lodging, food and travel were not organized well or not taken seriously
- Logistics and support from facilitators: they were not much prepared to handle such process
- Lunch packet
- Pick-up and drop (logistics support)
- Refreshment should be improved/changed
- Same food every day, many sweet and not food
- Snack management

Organization

- Actually the organization and workshop facilitation has no any more coordination
- Facilitator were not experienced to organize and run this type of workshop
- First day management was not up to the mark
- Improve time management
- Lacks from technical equipment
- Management
- Management (poor)
- Management is not very impressive
- Poor management
- Poor management
- Poor management of schedule that caused an editor unable to attend the presentation of article assigned to him

- Some lacks from managerial side
- Take it easy to the participants (not very busy)
- The seminar process was okay but was not organized
- There were some time lapse in between actual programme
- Time punctuation [punctuality?]
- Too long discussions
- Workshop hours from 09:00 to 17:00 is too early in our context

Participants

- Absence of farmers/target group
- Farmers' representatives are not invited
- Lack of professional writer, most of the writers were technical writer
- Number of editors should be two more
- Participation of farmers would have been better in this process, though farmer inputs were incorporated in the field, it was not enough for the preparation of the materials
- To improve the information materials some farmers could have been invited to participate. According to the experience some materials could have been incorporated in the workshop itself
- Too big group. Heterogeneous mass. It could have been better if concentrated in a small group in the same field
- Very few scientists were participated in the workshop
- Very wide area of professionals to some people are not interested

Pre-test

- Better to choose the target group of farmers
- Farm visit should have been made according to professional farmers or related farmers
- Field testing could be improved a lot if cooperation was sought from district offices
- Pre-distribution of materials to the farmers
- Pre-test is not always possible
- Pre-test site selection
- The way of pre-testing: time constraints, taxation to farmers,

difficult to reach in time and hence many farmers feel reluctant

- Workshop is too long; should be limited to 2–3 days

Process

- Because of expertise rewriting paper was prestigious issue
- Draft presentation is hectic
- Ego-erosive
- Hands-on were less
- Information collection tools not used
- Lack of orientation to authors to deal in the workshop
- More efforts and time spent for little output
- Procedure to get the input from each participant was lacking
- Queue at computers
- Sometimes it was not guided
- Unnecessary comments and criticism

Topics

- Already published ACD materials should also be evaluated and judged
- Information on important topics not included (topic selection not proper)
- Limited papers and written by specific personnel
- Many other technological aspects left
- Ritual papers
- Some of the papers were by non-experienced persons which was completely unsuitable for new farmers
- The materials selection failed to consider about recently published materials which ultimately resulted in repetition
- The selected topics were not fully relevant to the farmers in the present context
- The subject area should be specific. It should not be in a heterogeneous group

Time

- A bit long
- Lengthy
- Long duration
- Long duration
- Long period of 5 days
- The duration of seminar was too long
- Time constraint for [...] and modification
- Time duration can be done in 3 days rather than 5 days
- Time-consuming and long
- Too long
- Too long

Venue

- Far from center of city
- Toilet without water
- Venue (far, no transport)
- Venue for the workshop

Evaluation question 2

Please write any additional comments or suggestions in the space below. For example, how might the workshop process be improved? Should similar workshops be conducted in the future? On what subjects?

Adaptation of workshop process

- Although the workshop is useful, it is expensive. In future it is suggested to conduct such workshop in small group
- Should conduct this type of workshop on radio/TV programme
- Similar workshop may not be cost-effective every time, but to have a smaller core group along with an

artist can be useful in future for better materials

- The farmers should organize such workshops in a small level
- Workshop should be organized to produce radio and video materials

Art

- Artists were very busy, so for every 5–6 papers one artist should be available

- Have more artists at least 1 per 4 authors
- Two artists could not go along with the pace of writers and audience, so increase their number

Follow-up

- A workshop procedure is participatory with sequential steps which can improve the quality of material production by AICC. In future, in consultation with concerned departments under MOAC, subject matters focusing on field extension personnel could be developed. AREP should continue this approach and possibly other projects under MOAC such as RDP.
- Impact of the workshop and technologies must be evaluated before planning future actions
- In future also this type of exercise be conducted
- Interlinkages between research worker, extension and farmer should maintain through the workshop at regular intervals of the year
- It should be organized each year but the management should be under AICC
- Materials may be quite good, but should reach the appropriate farmers
- Participants of this workshop should act as trainers for further workshops in their respective organizations
- Similar workshop should be continued in future for preparing other materials
- Similar workshops should be conducted in future
- Such workshops on production of extension materials should be organized by AICC every year
- There should be clear-cut provision of printing of selected subject
- This type of workshop is to be conducted in the future again.

Guidelines

- A detailed TOR should be provided to authors in advance with team of artists and editors, who should contact authors in rotation before the workshop
- A guideline for authors should be published (either in a page of AICC

bimonthly book, or in form of a booklet) on the procedures of extension material production (like this workshop)

- It seems that paper presenters were not informed well about paper writing style. Otherwise they might have come with figures as well
- Participants would have been guided to the scope of comments
- The selection of author should be improved and should give sufficient time and guidelines for them

Logistics

- Food should be more appropriate to the Nepalese food habit
- Logistic support was all right but still room to improve in future

Organization

- Ideal budget can be allocated to respective authors for preparing the materials (expenses of artist and editors or for other logistics) so that workshop time could be shortened.
- Reasonable remuneration should be provided to participants
- The workshop might be improved if the time schedule was strictly followed
- This type of seminar is useful to produce quality materials but management part should be considered as vital and influential

Participants

- Farmers should also be the participants of such type of workshop
- Have more participants on same subject
- In this workshop some literate farmers of target group should be involved from the very beginning, so that the feedback on manuscript could be obtained without wasting the time
- Target groups (farmers, JT, JTA, technician) if gather together and share the workshop it would be more effective
- Workshop should include the farmers' representatives for detailed interaction throughout the workshop period

Pre-test

- After preparing the 3rd draft and testing in the field in the farmers' groups, the farmers should be selected according to their interest, not as a random.
- Farm visit is good, but it should be in the actual farmers' field, eg brochure of fisheries in fish farmers' field
- For pretest, a group of 15-20 farmers could be selected from different VDCs/groups for the district and brought them into workshop venue, so that they could concentrate well on the topics
- It is better to select the target group (farmers) according to the subject. eg, farmers are not aware about IPM, and so on
- Pretest seems to be most informative which gave quick input
- Pre-test should be carried out in the relevant farmer group, but should not be tested with anybody farmers
- The farmers should be pre-information and remuneration
- The materials which have been prepared for the farmers should be given one day before so that we can get clear feedback from them. During field visit, I felt that the farmers have a few time to read long documents
- The venue should be in Dhulikhel, Godavari or Nagarkot so that field test can be organized in a proper way

Process

- After everyone's comment, comprising of 2-3 participants having knowledge on the topics, a subcommittee should have been formed for technical verification, because everyone wanted to include their comments which could not have been technically sound
- Group exercise should be emphasized to find out appropriate messages for the farmers
- Paper should have been distributed few days before to editors
- Paper writers should have been given [more] chance for rethinking and rewriting of the materials (more time)
- The process of workshop should also improved and should be more participatory

- The workload was high for the editors and artists
- The workshop process needs improvement with more hands-on exercises

Regionalization

- For each set of publications the workshop should be conducted at central and regional levels
- It is better if such workshops are organized in different regions so that booklets [and] pamphlets will be prepared suitable for different ethnic groups
- New type of workshops should be conducted in future in various places in the country
- Specific brochures or materials for the proper area, region or belt should be developed

Time

- Duration of the workshop is long (a little bit). Duration should be three days, and three days are more than enough
- If this seminar is to be condensed in three or four days it is better.
- The initiation is very much encouraging. Definitely there is room to improve in future. It will be more effective to have a workshop of 3 days with a group of 1-15 experts/researchers/ extensionists and also few farmers
- The workshop duration can be reduced to 5 days instead of 3 days
- The workshop should be designed in a short duration about 3 days
- Workshop should be short and more effective

Topics

- Have similar workshops and have [...] fisheries sector for different topic
- In future the workshop should focus on the problem of extension materials distribution and how it should be efficient
- More specific area group would be effective
- Most of the materials produced in this workshop are already published by

AICC. Therefore it is suggested to identify the unpublished materials

- Similar workshop will be necessary in future so that effective communication and extension materials can be prepared for the farmers and extension workers related to different agriculture and livestock sectors. Agroforestry materials are lacking
- Subject for other articles could be agronomic management of different commodity practices
- The subject selection process should be proper
- There should be major improvement. Marketing aspect seems very important. Entrepreneurial techniques are the major demand of the farmers. Post harvest technology should be provided in package
- Training on production techniques of visual aids to the participants would be the next subject
- Workshop based on particular field: livestock and poultry disease prevention in Nepal according to severity and priority (animal health)
- Workshop is needed but specific according to target groups
- Workshops be conducted in future. Topic: audiovisual methods of extension
- Yes! Similar workshop may be essential for the following subjects: effective distribution of extension materials in Nepal; How to manage polluting environment of agriculture; Problem of unnecessary applying pesticides and antibiotics in agriculture
- Yes, it should be conducted again on agriculture and livestock separately

Evaluation question 3

What is your impression of the workshop? (Circle one number in each row.)

Number of respondents selecting each score

		<i>poor</i>											
		Score											
		1	2	3	4	5	6	7	8	9	10	mean	median
a)	Workshop process				3	6	2	4	13	3	5	7.3	8
b)	Output					4	6	4	15	4	3	7.5	8
c)	Organization, logistics, support		1	1	4	6	7	5	8	3	1	6.4	6
d)	Workshop as a whole				1	7	5	8	8	3	4	7.1	7

Appendix 12

Vision and strategy for communications in DOA/MOA

Audiences

The Ministry interacts with a wide range of actors within the agricultural knowledge system. These include:

- Extensionists and farmers (AICC's current target group).
- Researchers, university staff and students.
- The Ministry's own staff, both in Kathmandu and with at regional, district and village levels.
- Clients such as agribusinesses (input suppliers, marketing organizations, importers, seed growers, etc.), credit suppliers, and NGOs.
- National and international research and development organizations (NARC, CIMMYT, ICIMOD, FAO, etc.).
- Potential and actual donors (bilateral, multilateral, international NGOs).
- Other arms of the government (other ministries, local government).
- The general public.

Because they are stakeholders in the Ministry's activities, these groups are also major audiences for the Ministry. A communication strategy must take these diverse audiences into account: it should specify whether they are to be served, how they are to be served, and which agencies within the Ministry will be primarily responsible.

Message types

AICC currently caters almost exclusively to the technical information needs of two groups: farmers and extensionists. It neglects the needs of these groups for other types of information (such as how to get credit, market crops, or organize farmer associations). It also neglects the needs of other potential clients and intermediaries, such as seed suppliers, farm-supply shops, produce-marketing firms and NGOs.

A communication strategy should specify how these needs are to be met, and by whom.

Channels

AICC relies almost exclusively on three channels to distribute its messages: broadcasts on Radio Nepal, broadcasts by Nepal TV, and the publications distributed by the extension service. These channels automatically restrict the audiences that can be reached. There is no mechanism to ensure that AICC publications reach NGOs in remote areas, for example, seed suppliers, or rural credit institutions.

A communication strategy should address how to increase the number of channels by which information is delivered. For example, how about collaborating with the Ministry of Health to distribute information on how to grow vegetables via health clinics? Selling AICC publications through local booksellers? Distributing leaflets via trucking companies? Providing programming to the new private radio stations? The strategy should explore such ideas and encourage innovation.

Information sources

Although AICC is an important implementer of the Ministry of Agriculture's communication strategy, it is by no means the only one. Others include the Ministry's training centres (which train large numbers of farmers), the extension service, NARC, and activities such as farmer field schools promoting integrated pest management.

Many non-Ministry information sources exist. By far the most important is farmers themselves: farmers listen to and learn from their neighbours much more readily than they do a radio programme or an extension worker. Other important sources of information are the private sector and NGOs.

Rather than relying on a small number of sources (currently NARC and central Ministry staff), a communication strategy must draw from these wider sources. This implies wider linkages with other institutions – government, private and non-profit.

The aim should not be to centralize control of information (this would be inefficient, counterproductive and bound to fail). Instead, the strategy should facilitate multilateral information flows, and seek to ensure that each stakeholder's information needs are being adequately addressed.

Technology

Over the last 5–10 years, communication technology has undergone enormous change. The two most significant developments are in the internet and in mobile telephones. This change is continuing. These technologies offer a huge opportunity to improve the flows of information within the agricultural knowledge system. Nepal must be ready to grasp this opportunity.

Improved communications enable dramatic improvements in the ability to coordinate activities, learn of problems, identify solutions and deliver them to users. They also mean that users can access information much more readily, enabling them to solve their own problems rather than wait for help from outside.

A communication strategy must determine how to take advantage of this new technology. For example, how will the Ministry use the internet to disseminate technical agricultural information to clients? How will it use it to gather information on topics as diverse as stemborer infestations and personnel management?

Nepal cannot afford to invest heavily in computers and the training needed to run them. A communication strategy must be both realistic and visionary – showing how the new technologies can be used within the Nepali context.

Organizational structures

When it became AICC, the former Agriculture Communication Division was recently shifted from under the Department of Agriculture to directly under the Ministry. This was done to enable greater coverage and better coordination of non-DOA communication issues, especially livestock and cooperatives. However, it is not necessarily the final organizational solution. Possibilities that should be considered include the status quo, merger with other units (such as the training centre), and partial or complete privatization.

Even if the current structure is retained, AICC's mandate should be reconsidered. For example, should AICC be responsible for producing training materials for the Ministry's training centres? Should it be responsible for the Ministry's website? For public awareness activities? For a broader (or narrower) range of media?

Note that we are not recommending that AICC take on these tasks – merely that they are tasks that need to be performed, and that AICC is a potential candidate to perform them.

Staffing, funding, training and equipment needs flow from the answers to these questions.

Strategic planning process

All this is a lot broader than AICC and its current activities. It therefore follows that a broader range of stakeholders should be involved in the strategic planning process.

Needless to say, AICC's strategic planning process must derive from and feed into the Ministry's broader strategic plan. The involvement of the broader stakeholders (including senior Ministry staff) will ensure this.

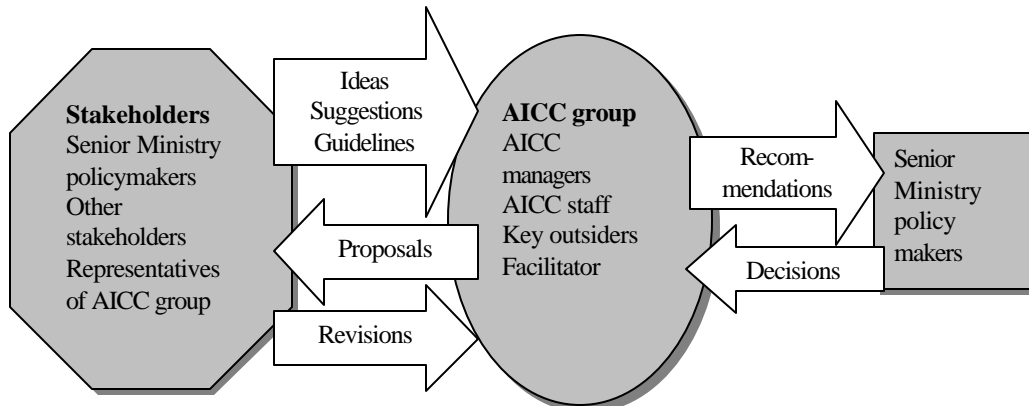
We suggest a two-stage procedure. AICC would undergo a participatory strategic planning exercise that would analyse the current strengths, weaknesses opportunities and threats facing AICC, and generate proposals for changes in the current strategy and activities. This exercise should be participatory, involving both officers and staff. It should also involve a few key outsiders (both Ministry and non-government), who can provide the technical expertise (eg, on the internet), detached views and external vision that AICC staff themselves may lack. This process should be facilitated by an outsider (not one of the AICC staff) to provide neutrality, avoid domination by a few senior staff, and ensure that truly strategic questions are addressed.

Parallel to this exercise, a broader range of stakeholders, representing the groups listed above and including senior Ministry policymakers, should be consulted on the audiences and messages that AICC should serve. The facilitator, senior AICC managers and the key outsiders can act as links between the two groups. This larger group should meet twice: once before the AICC planning exercise (when it will provide inputs into the AICC exercise), and again afterwards, when it will consider the proposals generated through the AICC exercise, and feed comments back to the AICC group.

It may be possible to gather the stakeholders' suggestions through a series of smaller meetings (even focus groups) rather than through a large meeting. Some stakeholders may be able to submit ideas remotely via email. This would be possible if the document generated by the AICC group were to be circulated widely via email.

Once the AICC group has formulated its recommendations, it would forward these to senior Ministry policymakers, who can decide whether to act on them.

This procedure is illustrated below.



The impact evaluation now planned (see Appendix 1) will provide vital information that can be fed into the strategic planning process. The strategic planning should not be conducted until the results of this evaluation are in.

Appropriate tools for the strategic planning process by the AICC group include:

- Vision – mission – goal.
- SWOT (strengths, weaknesses, opportunities, threats).
- Appreciative enquiry.

Appendix 13

Radio drama series for agriculture

Summary

The Agriculture Information and Communication Centre should explore the possibility of producing a radio drama serial for agriculture, along the lines of the successful British radio soap opera, “The Archers”.

AICC should approach the various sources of expertise in Kathmandu for assistance in planning and scripting the programme, and explore funding opportunities from international organizations and NGOs.

Background

The Agriculture Information and Communication Centre (formerly the Agriculture Communication Division) of the Ministry of Agriculture produces a regular daily programme aired on Radio Nepal. Programmes currently consist mainly of interviews and panel discussions.

Radio is by far the most widespread mass medium in Nepal, and is an important actual or potential source of information on farming technologies and social and economic issues affecting rural people. However, the standard format of AICC programmes is tired and needs renewal.

Once a week, AICC produces a programme featuring an “Old Lady”, played by AICC staff member Laxmi Bhusal, who talks with extension personnel (played by other AICC staff), researchers, and others. This Old Lady programme is very popular with listeners, and Laxmi’s character is a household name throughout the country. The popularity of this programme shows the potential for drama in Nepal.

This proposal is to develop a radio drama series, or soap opera, featuring a fictional village in Nepal, and focusing on agriculture and other rural development issues. This series would follow the pattern pioneered by “The Archers”, a long-running and highly successful British farming series. “The Archers” has been copied widely throughout the developing world.

In Nepal, NHEICC has for the past 6 years produced two popular Nepali-language radio serials: “Service Brings Reward” on health issues, and “Cut Your Coat According to Your Cloth”, a drama serial. Both these programmes are broadcast on Radio Nepal. They are produced by NHEICC with technical assistance from Johns Hopkins University (JHU) in Kathmandu.

In Kenya, the equivalent of AICC, the Agricultural Information Centre, produces a weekly Kiswahili programme called “Tembea na Majira” (“Move with the Times”). The costs of this programme consist of three components: staff salaries and facilities, production costs (scripting, talent fees, etc.) and broadcast costs.

- Salaries and facilities are covered by the government.
- Production costs are covered by “sponsors” – organizations such as ICIPE (an insect-research centre) and international NGOs. These sponsors determine the messages to be

incorporated into the storyline. Up to three themes can run at the same time – for example, maize stalkborer (from ICIPE), domestic violence, and combating malaria.

- Broadcast costs (the fee paid to the Kenyan Broadcasting Corporation) are covered by advertisers (currently Cadbury's and Colgate).

Suggested approach

AICC could produce a radio drama series, broadcast once or twice a week, following the above models.

The programme could be produced by AICC, using existing staff and facilities. Additional expertise in scriptwriting and voice talent would be needed, as would ongoing research on the problems facing villagers and the potential solutions to them. These costs would be covered by sponsorship fees (see below).

Messages from government agencies (NARC, other units in the Ministry of Agriculture) could be incorporated into the series at a subsidized rate or for free (as is the current practice).

Audience

The audience should be farmers who have few other sources of information. While the primary target audience might be women, the programme should appeal to all family members, including the men (who own the radios and control the off-button) and children.

Content

Two approaches to the content could be used.

- The programme could be based around the character of the Old Lady. It could include her family, her friends, neighbours and enemies. This would have the advantage of building on existing talents in AICC, as well as an existing, strong “brand”. This would have its risks: if the programme does not prove successful, it may damage the image and credibility of the Old Lady.
- Alternatively, it may be better to continue with the Old Lady broadcasts, and build the drama series around a completely new set of characters. If successful, this would give AICC two strong programmes rather than one.

The programme should include topics other than agricultural technologies – for example, marketing, farmer organizations, credit, input supplies, etc. The programme could also be broadened to include non-agricultural topics, such as health, gender, transport, corruption, and other issues. This would be desirable to maintain audience interest, and to enable a broader range of sponsors to be involved. If transport were to be covered, for example, Nepal's many rural road projects could be tapped for support.

The Kenya serial is supported by another series of programmes that discusses technical details of the themes introduced in the soap opera. AICC could do the same: broadcast the series once a week (possibly with a repeat broadcast on another day), and use an existing time slot on another day to cover the technical messages.

Financing

The Kenyan model could be adopted by AICC.

- The government could continue to fund the salaries and production facilities (AICC's audio recording studio has recently been upgraded by the AREP project).
- AICC could, in partnership with other interested organizations, seek funding to cover production costs, and to determine messages. ICIMOD has expressed an interest in collaborating with AICC in this way. Other organizations could be approached.
- Advertisers could be approached to cover the broadcast costs. This would necessitate discussions with Radio Nepal, which currently provides AICC with airtime at a subsidized rate. If it is not possible to reach agreement with Radio Nepal, AICC would have to continue to pay for this airtime out of its own funds.

Support

Numerous sources of expertise and funding are available in Kathmandu that might support this programme. These include:

- Johns Hopkins University (expertise in scripting and production). JHU has trained a cadre of broadcasters in the techniques used in radio drama. An AICC radio staff member (Binod Giri) has attended this training and is involved in producing the health programme.
- NARC, Ministry of Agriculture (content).
- Major NGOs such as Helvetas, Care and UMN (content and financial assistance).
- International organizations such as ICIMOD, Unicef and FAO (content and financial assistance). ICIMOD has already expressed an interest in seeking funding for such an initiative.
- Donor agencies such as Swiss Development Cooperation, GTZ, DFID, DGIS, USAID, World Bank (financial assistance).
- Development projects (content and financial assistance).

Research

The programme should be research-based, to ensure that it addresses the problems felt by rural people, not those deemed important by policy makers. AICC would need to develop a capability to perform this research.

Audience research would also be needed to determine listening habits, enabling the producers to attract sponsors and advertisers. To ensure credibility, these studies would have to be done by an independent agency.

Interest

The AICC management (B P Bimoli and D N Manandhar) have expressed strong interest in the possibility of producing a radio drama series along these lines. So too have the radio staff of AICC (Laxmi Bhusal, Binod Giri, Prakash Shrestha, Shyam Kirshna Rajil).

ICIMOD (Archana Karki, Greta Rana, Shahid Akhtar) have expressed interest and support. Archana Karki suggested that ICIMOD be a partner with AICC in seeking funding for such a series.

Johns Hopkins University (Dianne Summers) initially suggested the idea of doing a “Nepali Archers”. She has offered JHU’s assistance.

Key contacts

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Upendra Phuyal, development communications specialist, Agricultural Research and Extension Project. Tel. (home) +977-1-535 105; email upendra@upendra.wlink.com.np.

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Diane Summers, Country Representative, Johns Hopkins University/Population Communication Services, GPO Box 14308, Kalikasthan, Kathmandu. Tel +977-1-417 628, 416 182; fax +977-1-415 675; email diane@mos.com.np, dsummers@jhupcs.org.np.

Appendix 14

Use of the internet by AICC

The internet presents major opportunities for the Ministry of Agriculture in general and AICC in particular. It holds the prospect of the Ministry being able to provide information instantaneously and at almost no cost to users wherever they may be – in Nepal or anywhere in the world. It also could enable Ministry staff and other agriculture stakeholders to access information from anywhere at almost zero cost.

The information infrastructure in Nepal is still poor (though is much better than in some other developing countries with comparable living standards). With deregulation of the telecommunications sector and the introduction of new technology, costs will fall and services will improve. In a few years, telecommunications may be available even in remote areas. The Ministry must be ready for the opportunities this provides.

“Nepalese farmers will never use the internet”, one often hears. But experiments in India, and experience in Sénégal, show that rural people can and will use the internet. In the impoverished parts of northern Sénégal, workers who have emigrated remit money to their families via the banks, and inform their relatives via email. Large numbers of rural telecentres, consisting of no more than a telephone, modem and computer, have sprung up to provide this service to Sénégalese farmers.

With Nepal’s large emigrant population, similar trends may not be far away.

Even if Nepalese farmers never use the internet, important actors in the agricultural knowledge system will do so, and are already doing so. These include NGOs, government, private firms, university staff and students, the media, and consulting groups. These groups serve large numbers of farmers that are untouched by the extension service. It is therefore important to provide them with information, so they can in turn pass it on to farmers.

Content provision

A major problem with the internet in developing countries is not in the provision of the technology – donors can always be found for this – but in the availability of relevant content. AICC has a large amount of content, written for local people, in the right language (Nepali). It undoubtedly has the largest collection of agriculture-specific, copyright-free, Nepali-language materials.

AICC currently produces between 6000 and 15000 copies of each of its publications. While these numbers seem large, they are small compared to the country’s farming population. A print run of 15000 copies of a leaflet, divided among 1300 extension workers, means that each extensionists has at most 11 copies of the leaflet: one for him- or herself, and 10 to distribute to farmers. That’s a drop in the ocean.

Putting this material on the Internet would go some way to overcoming this problem:

- It would make AICC’s materials immediately available to anyone with an internet connection – especially NGOs. They could download and print publications, re-edit them

as necessary to suit conditions in the villages they work in, and print multiple copies for their clients.

- It would help market AICC's products. Users currently have no way of finding out about AICC's materials. Posting them on the internet would mean that users could become aware of the existence of (say) AICC's brochure on mushroom cultivation, and could order multiple copies for use in the user's target villages.
- It would broaden AICC's client group to include not just farmers and extension workers (few of whom currently have internet access), to NGOs, universities, firms and others. Using multiple channels is vital for effective communication. The internet is one such channel.

Radio

The potential of the internet is not confined to publication distribution. It is potentially highly relevant for radio too. In West Africa, community radio stations are springing up, encouraged by democratization and the granting of new broadcast licenses. These new radio stations require programming. Several "programme banks" are being established to provide them with good-quality, relevant programmes in appropriate languages. Stations can contribute programmes to the bank, and can also take programmes from the bank for broadcast. Some of these services distribute programmes on cassette; others allow users to download programmes from the internet.

Such a pattern may be relevant for Nepal too, where new stations are being established and are seeking programming. AICC is in a position to provide that programming, at no (or limited) cost. It should do so.

Radio scripts are currently hand-written, and are not readily retrievable. Putting them on the internet would make them retrievable. One could imagine, for instance, a radio station in a remote area downloading programme scripts and translating them into the local language for recording and broadcast. That would multiply the effect of AICC's broadcasting efforts with little additional cost.

Developing content

The internet can also help ease AICC's problems in developing content for its publications and broadcasts. AICC producers and editors can use email to generate and edit publications and scripts, eliminating the need for costly faxes, difficult-to-arrange meetings, and postal delays.

Recommendations

AICC should:

- **Join NepalNet.** The price of one year's membership (NRs 2500 for government organizations) includes (among other things) training for two staff in web design and internet use, and unlimited free webspace. This is an excellent deal.

- **Provide training for all relevant staff in computer and internet skills.** The AICC computers are currently woefully underused: a tragedy considering the potential value of this equipment to all aspects of AICC's work.
- **Purchase an internet subscription.** NepalNet can negotiate reduced rates for its members.
- Provide staff members with a **personal email address**, and train them how to use email. If the internet service provider cannot provide individual addresses, these can be obtained free from web-based providers such as Hotmail (www.hotmail.com), Bigfoot (www.bigfoot.com) or Yahoo (www.yahoo.com). Hotmail accounts can even be managed through Outlook Express, reducing online time and telephone charges.
- **Develop a website.** This site should contain a description of AICC services, the full text of AICC publications (HTML, PDF and possibly Word formats), the text of radio scripts, announcements of upcoming radio and TV programmes, useful links to Nepali agriculture sites, and others.

These actions are a minimum, and with appropriate training and investment, are achievable within one or two years.

Of course, AICC could go a lot further in embracing the internet, for example by putting audio online (see above), developing question-and-answer forums, or hosting email discussion groups. Developing these services should wait until AICC has developed its internet capability beyond its present level.

One way of kick-starting AICC's internet capability would be to host the NARKIS project (see Appendix 15). This multi-million dollar FAO project is currently in the proposal stage. AICC would be the natural place to house the project: it has the mandate to provide information to extensionists and farmers, and it has the content too. If AICC is to host NARKIS, then utmost care should be taken to ensure that NARKIS becomes institutionalized within AICC, with all staff becoming thoroughly computer-literate. The danger of NARKIS forming a high-tech enclave within a business-as-usual AICC must be avoided.

If it acts now to embrace computers and the internet, AICC can be at the forefront of agricultural communications in Nepal. Or it can lag behind, at the back of the information revolution, slipping ever further into irrelevance.

Appendix 15

Notes of discussion on communication in NARC

These notes were prepared by Paul Mundy on the basis of a discussion involving the following people. They include a few comments added after the meeting, based on discussions with Stephen Biggs (research management specialist, AREP).

- **Bhola Pradhan**, Director, Planning and Coordination, NARC
- **Paul Mundy**, Development communication consultant, AREP
- **Upendra Phuyal**, Development communication consultant, AREP
- **Bhola Man Singh Basnet**, Chief, Communication , Publication and Documentation Department, NARC

TEEAL: The Essential Electronic Agricultural Library

CPDD is due to acquire TEEAL. This is an excellent collection of 130 agricultural research journals (735,000 pages) on a set of 172 CD-ROMs, compiled by Cornell University's Mann Library in collaboration with the Rockefeller Foundation and the journal publishers (<http://teal.cornell.edu/>). The user can search a master disk for keywords, titles, authors, etc., and can then browse the full text of the articles. The journals are three years in arrears (the publishers do not want to release them sooner than this).

TEEAL is being adopted by research organizations in many developing countries (I have also seen it in Indonesia and Uganda). Experience there shows that it is vital that researchers (a) be made aware of this service, and (b) be trained how to use it. Without this, it will not be used.

Having TEEAL does not mean a library can throw away its journal collection and cancel its subscriptions. TEEAL contains only major international journals, not necessarily those most relevant to Nepal. It contains few Indian journals. And it has issues published only since 1993, and not in the last 3 years.

Recommendations

- Once TEEAL is installed and CPDD staff are familiar with it, CPDD should provide an overall orientation to TEEAL to all NARC HQ scientific staff, and to all staff from outlying stations visiting headquarters.
- CPDD should publicize TEEAL widely among NARC scientists and others – for example, by placing articles in the NARC newsletter and the national press, and by producing a brochure advertising and explaining the service.
- CPDD should start a training programme for all NARC scientific staff on an individual or small-group basis. This would involve the librarian demonstrating the TEEAL service to the scientists, searching for topics of interest to them, and printing out the results.

- CPDD should provide email services based on TEEAL for outlying stations. A scientist in an outlying station should be able to email a request for a literature search to CPDD, and receive an email containing the items found in return.

NARC Regional Communication Centres

NARC has recently established communication units in each of its regional centres. The tasks and activities of these centres remains to be defined, though the report by Upendra Phuyal (March 2000), prepared in consultation with Bhola Basnet, contains some ideas.

The regional communication centres should not be merely units for producing information based on NARC's own research. Rather, they should be clearing houses for information from various sources, including NARC, extension, NGOs and the media. They should be where users from within and outside NARC can find information about agricultural technologies, resources, linkages and potential partners, and a mechanism to feed information back into NARC.

The staff of the regional communication centres will require training in development communication approaches, as well as skills such as publication editing and production, video scripting, public awareness, and working with the media.

In view of the limited staff, skills and resources, the centres should not be too ambitious to begin with. For example, if they decide to produce a newsletter, then a simple one- or two-page sheet would suffice; a longer one would take too much effort, be unsustainable, and might in any case duplicate the existing *NARC Newsletter*.

It is important that the regional centres do not merely replicate existing efforts by NARC headquarters. Instead, they should focus on the specific needs of each region. The activities of each centre will vary, depending on the institutions working in each area, and not (just) on the technologies and biophysical problems faced in the region.

For this to function, CPDD should develop guidelines for activities at the regional communication centres. This could consist of a simple set of sheets (one sheet per activity), describing the type of activity (newsletter, video production, public awareness, library, etc.), and how to go about it. The guidelines should offer options, not strict procedures that must be followed. Centres should be encouraged to innovate in their approaches, to find the best mix that suits the needs of each region. Eventually, a set of 'best practices' could be developed reflecting the approaches and options that have proved most useful in each centre. Regular (annual?) meetings of the staff from each centre and headquarters could stimulate this mutual learning.

Recommendations

- Encourage innovation in the regional communication centres, but also provide training and guidelines.
- Avoid duplicating existing activities.
- Encourage the centres are a clearing house of information, not just as a media production unit for NARC outputs.

Email and internet services

NARC is expanding its email and internet services for its staff. CPDD has compiled lists of email addresses. These can be used to develop specialist mailing lists (based on topic or discipline), allowing news on those topics to be disseminated, and information to be exchanged within the groups.

One could imagine, for example, a set of email discussion groups that exchange news on projects, new technologies, research reports, information sources, training opportunities, etc. on their specific subjects. Such groups should not be confined to NARC staff, and indeed could include individuals and organizations outside Nepal.

Similarly, NARC staff should be encouraged to join the many international email discussion groups that already exist. Vibrant groups exist in integrated pest management, ethnoveterinary medicine, and development communication (to name but three). CPDD staff can help scientists identify those groups that are most relevant to them.

NARC should offer training in email and internet use to all staff, and should strive to provide email accounts for all. If it is not possible to offer individual server-based email accounts, then free, web-based services can be used. Hotmail (<http://www.hotmail.com>) is one free email service that can be integrated with Microsoft Outlook Express to allow easy offline management of messages (so reducing online connection costs).

Much could be learned from research networks being established in other countries and regions. Two of these are Procaribe (<http://www.procaribe.org/news>) and CAIS (<http://www.caisnet.org>), both in the Caribbean. There are similarities between the Caribbean and Nepal, such as diverse ecosystems and transport difficulties, though the Caribbean is more networked and more computer-literate than Nepal. Studying experiences in the Caribbean and other countries might help Nepal avoid mistakes made elsewhere as it moves to incorporate electronic communication in its work.

A barrier to greater email and internet use is the limited number of phone lines in NARC, and their poor quality. This is a problem in NARC headquarters, but much more so in the outlying stations. Priority should be given to providing sufficient lines to these stations.

Recommendations

- Develop email discussion and news groups.
- Provide training and access to internet resources to all staff, with priority given to the outlying stations.
- Study and learn from experiences in electronic communication at peer institutions.

Information management

NARC is in process of developing a computerized management information system. Because of the difficulty of attracting and retaining qualified information-technology staff, it is negotiating with local software firms to provide these services on a long-term contractual basis. The MIS will contain modules on NARC assets, projects, finances and personnel.

Training will be needed for management and staff at headquarters and outlying stations to enable them to use the system.

Experience elsewhere has shown that the system must be seen as a key management tool, not as an extra chore that can safely be ignored. This means it must provide the information that different levels within NARC need to perform their daily work, inputting data must not too arduous, and the system must receive the full support of key managers.

NARC is considering the benefits of WISARD the 'web-based information system for agriculture and rural development', developed at the International Agriculture Centre, Wageningen. This appears to be a web-based database of agricultural research projects worldwide. It has a limited amount of information about each project (including four in which NARC is involved, including AREP but not HARP). There is a brief description of each implementing organization (there's a page on NARC).

WISARD is not a management tool – at least in the form presented on its webpage (<http://www.iac-agro.nl/wisard/>). It is more of an information reference for outsiders than a detailed source of data for insiders.

Researchers' incentives for service to extension

NARC scientists are evaluated and promoted based on a points system: they can earn a maximum of 100 points per year. A recent change in policy means that they can now earn up to 5 points for writing extension articles (each article published is worth 0.5 point). This compares with a maximum of 35 points that can be earned from writing research articles (3 points for an article published in an international journal, 2 for a national journal, and 1 in other periodicals).

Recognizing extension writing in this way is an encouraging development. It is hoped that scientists will now be stimulated to write for an extension audience, increasing the flow of materials that AICC has available to publish.

Recommendations

- The revised points system should be publicized widely within NARC.
- The potential outlets for extension writing (including AICC) should be announced.
- AICC should produce guidelines on writing for extension and farmer audiences, and distribute these to all NARC scientists.
- NARC should consider allowing other forms of service to extension to count towards evaluation points. Examples are radio and television interviews, and participation in extension field activities.
- NARC staff assigned to communication duties (eg, in CPDD and the regional communication centres) should be able to earn a greater proportion of their points from extension and public awareness activities.

NARKIS

NARKIS (Nepal Agricultural Knowledge and Information System) is an FAO project now in the proposal stage. It aims to use information and communication technologies to facilitate information flows among farmers and service providers, and to strengthen the capacity of the Ministry of Agriculture and related institutions to support this.

The contact person in FAO Kathmandu is Lakshman Gautam, Senior Programme Officer, FAO, laxman@info.com.np.

If implemented, NARKIS would have significant implications for NARC in at least four areas:

- **Information provision.** NARC and AICC have large amounts of information of potential relevance to NARKIS users.
- **Information use.** NARC and AICC are also a major potential user of the NARKIS system.
- **Relationships among services.** NARC, AICC and NARKIS could overlap in terms of the services they provide. They should strive to collaborate, not compete.
- **Institutional home.** The institutional home of NARKIS is unclear from the draft proposal. Both NARC and AICC are potential candidates to house such a facility.

Recommendations

- NARC and AICC should engage in discussions with FAO and others on the design of NARKIS in order to clarify these issues and influence the decisions made.

Regional technical working groups

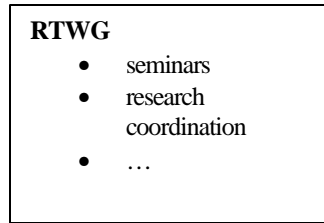
The RTWGs currently consist of a large group of researchers, extension staff and others, which meets periodically to discuss agricultural research in each region. NARC feels that these working groups could be used more efficiently, and is in the process of hiring a consultant to suggest ways of doing so.

There are many topics of mutual interest to research, extension, local governments, NGOs and farmers in each region. These include:

- the exchange of research-based information
- staff training
- the dissemination of information on agriculture to farmers and the public
- the determination of research directions
- the implementation of field trials and demonstrations

The RTWGs provide a forum for discussing these and other issues (see figure below). However, the existing format of a large group meeting at infrequent intervals is too cumbersome.

Current situation



An alternative might be to have a smaller group of 10–12 representatives of the key organizations (research, extension, NGOs) in each region to meet as a steering committee, coordinating these activities. This steering committee could start as an AREP regional committee, but should be envisaged as continuing beyond the end of AREP.

The committee could coordinate such activities as research/extension seminars (the current RTWGs), special-topic conferences, training, field trials, media production, exhibitions and field days, study tours, monitoring and evaluation, joint projects, extension/NGO inputs into research activities, and workshops to produce information materials (see figure below). Each of these activities would be managed and performed by a task force drawn from NARC and other institutions.

Possible alternative

