

Agricultural Research and Extension Project
Ministry of Agriculture and Nepal Agricultural Research Council, Nepal

Developing communication strategy for agricultural extension in Nepal

A report submitted to project coordinator, AREP

March, 2000

By

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Introduction

This is the 4th report on agricultural communication component by the consultants as part of the World-Bank-funded Agricultural Research and Extension Project. It focuses on the structure, staffing, audience categorisation and strategy development for the Ministry of Agriculture's Agriculture Communication Division (ACD), and the five regional communication units (RCUs) located at the regional agriculture development offices.

Previous report of the consultancy

Report I (Mundy Phuyal report Sept. 99): Focused mainly on identifying major agricultural communication problems and issues that need to be addressed in agricultural communication in Nepal. While these could be seen as problems, we prefer to view them as opportunities for improving the situation.

Through this report we have made a large number of recommendations regarding equipment, skills and linkages in order to improve the functioning of the three institutions ACD, RCU and NARC's Communication Publication and Documentation Division (CPDD).

Report II (Phuyal, October 99): Partly complemented to first report and in addition focused mainly on identifying communication skills needs for ACD, RCUs and CPDD. In addition, a number of job related communication training courses have been identified for ACD, RCUs and CPDD staff and curricula for some of the most prioritise courses have been developed.

Report III (Phuyal, February, 2000): This report presents the major communication technologies recommendations for agricultural research and extension in Nepal. These communication recommendations are concisely accumulated from the previous two reports (Mundy Phuyal report Sept. 99 and Phuyal, October 99) for quick reference action by the concern implementing authorities.

Future plan of action

As recommended by MTR mission, the major future tasks of the communication consultant (s) will be:

1. Organization of participatory workshop to produce information materials
2. Design survey methodology and tools for carrying out impact and effectiveness studies f ACD's mass medi programmes

We propose to run a joint ACD/CPDD workshop to produce extension information materials. This one-week workshop will involve NARC scientists, NGO staff, IAAS and extension staff, and the publications staff from ACD, CPDD and IAAS. It will have several purposes:

- To develop a set of extension information materials on agriculture in Nepali, for use by extension personnel in the Departments of Agriculture and Livestock Services.
- To develop a new mechanism for research–extension linkages that can be used by the Agriculture Communication Division (ACD) and the Nepal Agricultural Research Council (NARC) in the future.
- To train ACD and NARC communication staff and NARC scientists in how to develop user-friendly extension materials.
- To improve linkages among NARC, ACD, the Ministry of Agriculture and NGOs working in agriculture in Nepal.

The workshop approach can overcome ACD's current problems in obtaining information from scientists, and assist scientists to convert their knowledge into usable information more quickly and easily. Once ACD and CPDD staff know how to use the approach, they can use workshops in future as a standard procedure for translating scientific and field-based information into extension materials.

Details of the workshop, and a list of tasks required to prepare for it, will be presented separately.

3. Develop curriculum for short courses and arrange training for some of the basic communication skills such as radio and video programme production, publication editing, desk top publishing etc.

4. Internal consultancy to support and facilitate ACD, RCUs, and CPDD to strengthen their information and communication activities.

Institutional focus

The purposeful application of media and communication support has assumed an increasingly important role in research and development. The planned use of communication media in development activities is generally referred to as Development Support Communication (DSC) or Development communication.

DSC, as defined by FAO, is “the systematic utilization of appropriate communication channels and techniques to increase people’s participation in development and to inform, motivate and train rural populations, mainly at the grassroots level.”

In Nepal, Agricultural Communication Division (ACD) within the Ministry of Agriculture is the main government organization producing communication materials and disseminating to farmers through its multimedia production (prints, radio and video) Capacities housed under own roof. ACD is currently producing and broadcasting a regular radio programme for farmer. However its relevancy and usefulness to specific target listeners are yet to be determined. It seems that very less attention is given to understand the real background (agro-ecological, socio-economic and pedagogical) of the target audience.

ACD, in collaboration with Regional Directorate of Agriculture has also started producing limited farm radio programmes and broadcast through Regional Radio Stations. However there is a problem of producing need based and specific audience oriented programmes due to lack of trained staff.

ACD also produces and circulates fairly a significant number of copies of different extension publications such as magazine, booklets, pamphlets, poster, diaries, calendar etc. The delivery of these printed materials to right section of readers and use and effectiveness of these publications would need to put a great care.

ACD is producing and telecasting a fortnightly TV programme (documentary) on agriculture and coordinating with NARC, DLS and other related institutions to produce daily TV programme on various aspects of agriculture. For the continuity and effectiveness of these programmes, a clear policy and strategy would need to be developed.

Other communication materials potentially useful and essential for field extension workers, such as posters, charts, slide, illustrative/ pictorial books etc. are yet to be exploited. Similarly communication support for training and orientation is realized to be extremely lacking in both extension and research programmes. Since, in service and on the job courses, seminars workshop and orientations are the necessary part of the continuing learning for extension personnel, where appropriate audio-visual aids and instructional materials are of great use that are not adequately used at present. Video and audio-cassettes, slide overhead acetates and printed charts could be effectively used in in-service and on the job training.

Regional Communication Unit (RCUs) have been established recently in all five Regional Agricultural Directorate aiming to produce regional based communication materials and media (radio, video, print) and also to support ACD’s agricultural communication programmes at the central level.

ACD’s mandate

ACD would be a part of MOA. It will focus its activities towards meeting the national objectives for agriculture development. ACD will commit itself to the fulfillment of communication services requirements of all the departments and divisions of the MOA. It will also coordinate and provide technical backstopping to Regional Communication Units. ACD will also be allowed to use the time and capacity saved after meeting the MOA’s target production requirement in undertaking revenue- generating communication and media production services under the Revolving Fund Act arrangement. However, MOA’s communication service needs and MOA’s target media production requirements will be the primary responsibilities of ACD.

Objectives of ACD

- I. To help raise the agricultural production and promote the market for agricultural produce by providing information to farmers, agricultural extension workers and entrepreneurs about improved technologies developed by agricultural research, produce market information and agricultural communication policies
- II. To assist agricultural technicians in their extension and training programmes by providing reading materials and audio-visual aids.
- III. To inform the general publics about the programmes, activities and achievements related to agriculture development in the country through different communication media
- IV. To coordinate the agricultural communication programmes of MOA's departments and division and backstop RCUs.

ACD current programmes and activities

- I. Publication: ACD publishes agriculture bi-monthly magazine (Krishi), booklets, pamphlets, diary etc. containing information about latest recommended agricultural technologies.
- II. Farm radio programme: ACD produces daily 15 minutes farm radio programme and broadcast over Radio Nepal on different topics of agriculture. Recently, established Regional Communication Units in all five regions have started broadcasting 10 minutes farm radio programme on Regional Radio Stations.
- III. Video unit: ACD produces and telecasts fortnightly TV programme and coordinates with NARC, DLS and other concerned organizations to produce and telecast a daily TV programme on agriculture.

ACD enjoys a semi-autonomous status within the Ministry of Agriculture. This allows it to generate additional income by selling its services, at rate set by the Ministry, to other government agencies (including NARC), private firms and non-government organisations. A portion of the income generated is returned to the Treasury; the remainder is used to maintain ACD equipment, purchase supplies, and boost ACD staff salaries.

ACD performs a vital role to support extension programme of MoA. It produces the majority of the technical information materials available to agricultural extensionists and trainers, and its radio and television programmes are widely heard and watched. However, these media outputs could be improved considerably through various measures recommended in Mundy Phuyal report Sept 99 (Annex I). Many of these outputs have been produced over many years with few changes. There is thus considerable scope for innovation to improve the content, format, production and distribution of these materials. It is expected that these changes will lead to major impacts on both extension (and other actors in the agricultural knowledge system) and on the farming community as a whole.

Present Organization set up of ACD

An agricultural communication coordination committee consisting of the representatives from different institution has constituted. The committee plays its role to make agricultural communication service active, need oriented and run in a coordinated manner.

A division with four specialized units (print, radio, video and public relation) under DOA at the central level and Regional Communication Unit (RCU) in each five RADs make a organizational setups of ACD.

Administratively, now ACD is a part of DOA, However its programmes and services are not limited merely within DOA but it has to cater its communication services to the needs of all the MOA's departments and subsidiaries. At present, because of its administrative location, ACD has been facing problem of coordination and cooperation from Department of Livestock Services, its subsidiaries and other divisions of MOA. Therefore ACD should be elevated from DOA to directly under ministry as a Central Agricultural Communication Division to give all MOA sectors equal access to its services and to enable ACD to coordinate and synchronize the communication activities.

ACD's existing staff strength

Position	No. of staff
Admin. and management services	13
Division chief	1
Agri. Communication Officer	1
Accountant	1
Admin. Assistant	1
Store Keeper	1
Typist	1
Clerk	1
Driver	2
Messenger	4
Press and Publication Unit	10
Asst. Agri. Communication Officer	2
Computer Operator	2
Still photographer	1
Press Operator	2
Artist	1 (vacant)
JTA (publication distribution)	1
Clerk (publication distribution)	1
Radio Unit	8
Asst. Agri. Communication Officer	2
Announcer/script writer	2
Asst. Announccer	2
JTA	1
Video Unit	6
Asst. Agri. Communication Officer	2
Video Editor	1
Production Assistant/sound man	1
Video Camera man	2
	(one post vacant)
Total	36

Proposed addition and re-allocation of staff

Administration and management services	11
Division chief	1
Communication Officer (Business Development)	1
Accountant	1
Administrative assistant	2
Storekeeper	1
Clerk	1
Driver	2
Messenger. Janitor	2
Radio	6
Producer/ director	1
Radio broadcaster/Script writer	4
Radio technician	1
Video	8
Producer/director /scriptwriter	2
Video camera operator	2
Technical Director/ editor	1
Video Editor	1
Production assistant	1
Audio specialist/ video tape Recording assistant	1
Publications	11
Publications director	1
Editors/ media development Specialist	3
Public relations specialist	1
Desktop publishing specialist	2
Computer operator	2
Still photographer	1
Artist	1
Press	7
Reprographer	1
Press operator	2
Press assistant	2
Distribution officer	1
Distribution clerk	1
Total	43

(See annex I for details of proposed staff duties and qualification needs)

Function of ACD

- ACD, as an agricultural communication wing of MOA, should play a coordinating role to plan and implement communication programmes of MOA's departments, their subsidiaries and division
- ACD should coordinate in producing media such as radio and video programme and publications for MOS's departments and divisions as per their needs

- ACD should regularly monitor and support the RCUs to produce media materials for regional audiences. This can be achieved through the respective specialized disciplines- radio, video, and publication unit. Though overall follow-up and monitoring responsibilities would be of ACD chief, the respective unit chiefs would be responsible to coordinate and backstop the RCUs to produce regionalized radio, video and publication on agriculture development. This could be materialized by increasing the mobility of ACD staff of respective units.
- Proactive seeking of new information by ACD. ACD Staff associated with radio, video and print production unit should not only keep their eyes and ears open but they should be highly mobile to seek new agricultural information generated from research as well as from the farmers' field.
- Establish and maintain a close and cordial relation with NARC to enhance the in-flow of information specially the results of the agricultural research to be used in ACD's difference communication media.
- Make arrangement for regular monitoring and evaluation of its radio, video and publication programmes.

Staff's skill development

Staff skills. In general, lower-level technicians in ACD are reasonably skilled for their jobs and are capable of producing professional outputs. However they need to update their skills through regular in-service training. The major training needs are at the management and officer levels. Staff at these levels need two types of skills:

- A basic understanding of **media production techniques**. They may not be experts in, say, video editing, but they do need to know how the equipment works and which buttons to push in order to be able to manage the production processes under their management.
- A background in **development communication**. Such a background should include an understanding of such topics as audience analysis and targeting, media planning, innovation diffusion, editing and scriptwriting, and agricultural knowledge systems.

Many of the ACD officer and management-level staff have degrees in extension. While this is a related field to development communication, it is still inadequate for work in a media production organization such as ACD. Many of the problems in ACD could be overcome easily if these staff had a suitable background in development communication. Therefore, ACD should place priority on providing its management and officer-level staff with training (degree and short courses) in development communication and mass media. Because it is the pre-requisite for improving effectiveness of ACD's multi-media services.

In the longer term, a degree in development communication should be a prerequisite to appointment at the officer or manager level in ACD.

Similarly training needs at the technician level are more specific: certain individuals would benefit greatly from training in subjects such as radio and video production techniques, publication editing, word processing, desktop publishing, press operation, etc. Priority should be given to provide these skills to ACD and RCU staff if agricultural communication services were to be effective and make impact. Some of the specific and skill oriented communication training need for ACD and RCU staff are identified as follows:

1. In-service training for ACD's radio and video unit staff, especially on video magazine production, video editing (computer based), radio magazine and drama production.
2. Writing and editing extension publications for ACD's print unit and RCU staff.
3. Desk-top publishing and graphic design for ACD's print unit staff.
4. Development communication and media production techniques for ACD and RCU management-level staff.
5. Radio script writing and programme production techniques for RCU staff.

6. Video camera operation and basic techniques on video production for RCU staff.
7. Press and printing technology course for ACD's press operators
8. MS in Development communication for ACD and RCU officer level staff

Regional Communication Unit (RCU)

Regional communication units (RCUs) have been established recently in all five regions under the Regional Agriculture Directorate offices. Though the regular staff required for RCUs are yet to be fulfilled, currently at least two staff have been assigned in each RCU to handle communication works.

Objectives of RCUs

- I. To help raise the agriculture production and promote the market for agricultural produce by providing regionally useful and relevant information for farmers, agricultural extension workers and entrepreneurs about improved technologies developed by research and market information.
- II. To assist agricultural technicians in their extension and training programmes by providing reading materials and audio visual aids in the region
- III. To inform the general publics about the programme, activities and achievements related to agricultural development in the region.
- IV. To coordinate the regional agricultural communication programme and activities of RAD, RDLS and related organizations.
- V. Help ACD's media production units by providing information on field based successful stories, video footages and radio scripts etc.

Function of RCUs

RCUs will have to perform the following functions:

- Coordinate the regional agriculture communication programmes of RAD, RDLS and other agricultural agencies
- Plan and produce radio programmes, video documentary, publications and audiovisual aids as per regional needs.
- Train district staff to operate audio-visual aids such as overhead projection slide projection, audio recording, photography etc as and when necessary
- Identify communication support needs of specific audience categories at the regional level.
- Distribute publications and other extension materials received from ACD to districts regularly
- Organize mobile video show to farmers' groups
- Collect information in successful stories specially being made by farmers, NGOs and private sectors and disseminate them through different communication channels to potential audience in a wider scale.
- Also feed-in the video footages and write up of successful cases to ACD to be disseminated through its different media.

Staff needs at Regional Communication Units

Position	No. of Staff
Communication Officer (class III)	1
Junior Technician (Video camera operator)	1
Junior Technician (Radio Prog. Production)	1
Distribution Clerk (Publication distribution)	1
Total	4

(See annex II for details of proposed staff duties and qualification needs)

Communication Strategies

Communication strategy is an effective combination of methods, messages and approaches by which the communication objectives of an organization can be achieved. Communication strategies are to be developed based on the overall goal and specific communication objectives of the organization and categories of specific target audiences to be reached. ACD different levels of target audiences to be reached its communication services. The target audiences of ACD's communication programmes could be farmers (farmers in general and women farmer, rural youth, farmers of different argo-climatic group in specific), extension workers/agricultural technicians, agricultural trainers, planners, policy makers, private entrepreneurs, NGOs and CBOs. The communication strategies could be different to reach out these specific target groups. Some communication strategies are suggested for ACD and RCUs to reach out to their audiences intended messages on agricultural development.

Communication strategy for Agricultural Communication Division (ACD)

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Farmers	<ul style="list-style-type: none"> To make aware of the availability of improved technologies on crops and livestock To change the farmers' knowledge and attitude towards improved farming practices To increase production and productivity of crops and livestock through increased adoption of improved farming practices 	<ol style="list-style-type: none"> New varieties of crops <ul style="list-style-type: none"> Information on newly released varieties of crops eg. rice, wheat, maize, pulses crop, oil seeds, sugarcane, vegetables, potato etc Crop protection <ul style="list-style-type: none"> Diagnosis and treatment of common diseases of crops Identification and control of insect pests of crops crop production <ul style="list-style-type: none"> specific techniques of crop cultivation like zero tillage, inter cropping, mix cropping, relay cropping etc. proper and balance use of fertilizers safe storage of grain preservation of fruit and vegetable Animal health <ul style="list-style-type: none"> Diagnosis and treatment of common diseases of animals Care of young calves Livestock roduction <ul style="list-style-type: none"> Farming of new breeds of cattle, buffaloes, goats, poultry, pig etc. 	<ul style="list-style-type: none"> Regular contact by extension worker to group of farmers Group meeting Slide or mobile video show Pictorial booklets Illustrated information sheet Poster/ pamphlets Mobile video show in farmers group Radio programme (radio magazine, interview, drama, question & answer, jingles etc.) TV programme Study tour Exhibitions Demonstration

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Women Farmer	<ul style="list-style-type: none"> To create awareness of improved farming technologies among rural women To change attitude and knowledge of farming women towards improved farming practices To increase production and productivity of crops and livestock by encouraging active involvement of women farmers 	<p>Mostly the contents targeted for farmer as audience in general are also relevant and useful to women farmer as well. However some specific messages would be identified/ and targeted for women farmers.</p> <p>For instance:</p> <ul style="list-style-type: none"> Kitchen gardening Vegetable and fruit processing Nutritional value of fruit and vegetable Sericulture Bee keeping Marketing Mushroom cultivation Goats poultry and pig farming Group saving and credit Income generating activities Community participation etc. 	<ul style="list-style-type: none"> Individual and group contact by extension worker Slide or mobile video show in women groups Pictorial booklets Illustrative information sheet Poster/ pamphlets Radio programme (radio magazine interview, drama question and answer jingles etc. TV programme Study tour Exhibition Demonstration etc.
Rural youth	<ul style="list-style-type: none"> To make rural youth aware of improved agriculture technologies To change attitude and knowledge of rural youth toward improved farming practices To encourage rural youth to take agro-based enterprise as source of income 	<p>Specific messages such as:</p> <ul style="list-style-type: none"> Agro- vet enterprises Agri. Implements maintenance and services Fruit, vegetable and agro. forestry nursery Commercial production of fresh vegetables Vegetable and cereal seed production Bee keeping, honey production marketing Poultry and pig farming etc. 	<ul style="list-style-type: none"> Poster/ pamphlets Information sheet Booklets Radio programme Slide and video show TV programme Study tour Newspaper

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Extension worker/ Agricultural Technician	<ul style="list-style-type: none"> To deliver extension services more effectively To motivate farmers (individual and group) to adopt improved farming practices Understand government agricultural development plan, policies and programmes and help implement activities in the respective districts 	<ul style="list-style-type: none"> Update of latest technologies on agriculture and livestock Package of practices of new technologies on agriculture and livestock Group organization and mobilization process Interpersonal communication skills How to motivate rural farmers How to use simple audio visual materials eg OHP, slide projector, still camera Role of extension workers in technology transfer Government's agriculture development plans, policies programmes and strategies. 	<ul style="list-style-type: none"> In-service training in the regular basis Extension publications with latest technological development in agriculture Newsletter and agri. Magazine Monthly and bi-monthly meeting of research and extension personnel Programme instruction through leaflet/ flyer Mass media eg radio, TV, Newspaper etc.
Agriculture Trainer	<ul style="list-style-type: none"> To facilitate trainer to be able to impart 'know how' of agricultural technologies to different levels of trainees effectively 	<ul style="list-style-type: none"> Identify major contents in coordination with Central Agri. Training Centre. 	<ul style="list-style-type: none"> Slide series, flip-charts, video film, technical manuals, hand outs, overhead acetates

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Planner and policy makers	<ul style="list-style-type: none"> To approve and support the policy, programme and budget for agricultural development To follow-up and regular monitoring of agricultural development programmes and encourage agricultural development workers at different levels 	<ul style="list-style-type: none"> National policy of agricultural development Agro-ecologywise potential and comparative advantage of agricultural development in the country Current agricultural development and research programmes/ projects and their achievements Agricultural develop related services such as training, motivation, monitoring, evaluation etc. 	<ul style="list-style-type: none"> Conference/ workshop Periodicals, newsletter Seminar/ workshop Newspaper, Radio, Tv Briefing video documentary Mass mailing of related programme Brochure
NGOs, CBOs	To communicate agricultural technologies and related information to local NGOs and CBOs and help enhance technology transfer to farming communities	<ul style="list-style-type: none"> Recommended agricultural technologies on crops, livestock, fisheries, poultry, bee keeping etc. Off-season vegetable production technologies Vegetable and cereal crops seed production etc. 	<ul style="list-style-type: none"> Extension publications e.g. booklets, pamphlets, posters, flip-charts etc. Agri. magazine, Technical manuals Slide kits Exhibits Video cassettes Audio cassettes Demonstrations etc.

Communication strategy for Regional Agricultural Communication Unit (RCU)

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Farmers	<ul style="list-style-type: none"> To create awareness about the availability of improved agricultural technologies for potential use in the region To change the farmers attitude towards changing their farming practices To raise production of crops and livestock through adoption of improved farming practices. 	<ol style="list-style-type: none"> New varieties of crops <ul style="list-style-type: none"> Information about newly released varieties of crops eg rice, wheat, maize, barley, millet, potato, legumes, oil seed, vegetables, sugarcane etc that are potential to be adopted by farmers in the region Crop Protection measures <ul style="list-style-type: none"> Identification of common diseases of crops Prevention and control measures Safe use of pesticide Use of biological control measures and bio-pesticides etc. Crop production <ul style="list-style-type: none"> Techniques of cultivation of crops e.g. minimum tillage, zero tillage, Zero tillage or surface seeding etc. Balance and timely use of fertilizers Control of post harvest loss of grain Preservation of fruit and vegetables 	<ul style="list-style-type: none"> Individual and group contact by extension and communication staff Group meeting Slide show Mobile video show Pictorial booklets Illustrated information sheet Poster, pamphlets Radio programme (radio magazine, interview, drama, question and answer, jingle etc.) TV programme Study tour Exhibition Demonstration

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
		<p>4. Animal health</p> <ul style="list-style-type: none"> • Identification of common diseases of animals • Prevention, control and treatment of common diseases of animals • Care of young calves • Prevention, control and treatment of poultry diseases <p>5. Livestock production</p> <ul style="list-style-type: none"> • Farming of cross breed of cattle buffaloes goats, sheep, poultry, pig etc. <p>6. Fisheries</p> <p>7. Bee keeping</p> <p>8. Cash crops etc.</p>	

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Women farmers	<ul style="list-style-type: none"> • To create awareness of improved farming among rural women in the region • To change attitude of women farmers towards improved farming practices • To inherece women's participation in farmers group • To increase production of crops and livestock and promote marketing of produce through active involvement of women in the region 	<p>Mostly the messages targeted to farmers as a main audience category are also relevant and useful to women farmers too. Nevertheless, some specific messages would be identified and designed for women farmers.</p> <ul style="list-style-type: none"> • Kitchen gardening • Vegetable and fruit processing • Nutritional value of fruit and vegetables. • Mushroom cultivation • Sericulture • Poultry keeping • Bee keeping • Marketing of produces • Pig farming • Group participation • Group saving and credit • Income generating activities • Gender role and gender main streaming etc. 	<ul style="list-style-type: none"> • Individual and group contact by extension and communication personnel • Slide show • Mobile video show • Pictorial booklets • Illustrative information sheet • Posters, pamphlets • Radio programme (radio magazine, successful stories specially of women farmers, question and answer, jingles songs etc.) • TV programme • Study tour • Exhibition • Demonstration

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Rural Youth	<ul style="list-style-type: none"> To make rural youth aware of the improved agriculture technology. To change attitude of rural youth toward improved farming practices To encourage rural youth to undertake agro- based enterprise and create self-employment opportunities. 	<p>Specific messages such as</p> <ul style="list-style-type: none"> Agro-vet enterprise Agri. Implement and tools maintenance and services Fruit, vegetable and agro-forestry nursery Commercial production of fresh vegetables Vegetable and cereal seed production and marketing Honey production Poultry and pig farming 	<ul style="list-style-type: none"> Poster, Pamphlets Information sheet Booklets Agri. Magazine Mobile video show Newspaper TV programme Study tour
Extension workers/ Agriculture Technician	<ul style="list-style-type: none"> To deliver extension service effectively To motivate farmers (individual and group) to adopt improved farming practices To make them understand government agricultural development policies and programmes and help implement activities in field 	<ul style="list-style-type: none"> Update of new technology on crops, livestock, fisheries etc. package of practices of recommended technologies on crops, livestock, fisheries etc. group organization and social mobilization process, interpersonal communication skill how to use simple AV material eg OHP slide projector, still camera Programme and policies of RAD. 	<ul style="list-style-type: none"> In service training on interpersonal communication Extension publication with latest recommendation of agriculture technology Newsletter Agri. Magazine Monthly and bi-monthly meeting of research and extension personnel Programme instruction through circular letter, leaflet brochure etc. Mass media eg Radio, TV, Newspaper etc.

Target audience	Objective (Change needed)	Strategy	
		Messages	Methods
Local NGOs, CBOs	To communicate agricultural technologies and related information to local NGOs and CBOs and help enhance technology transfer to farming communities	<ul style="list-style-type: none"> • Recommended agricultural technologies on crops, livestock, fisheries, poultry, bee keeping etc. • Off-season vegetable production technologies Vegetable and cereal crops seed production etc.	<ul style="list-style-type: none"> • Extension publications e.g. booklets, pamphlets, posters, flip-charts etc. • Agri. magazine, • Technical manuals • Slide kits • Exhibits • Video cassettes • Audio cassettes • Demonstrations etc.

Annex I: ACD's proposed staff positions, duties and qualification need

POSITION	NO. OF STAFF	DUTIES	SKILLS AND QUALIFICATIONS
Administration and management services	11		
Division chief	1	Plan, coordinate and manage division activities.	M. Sc. or Ph. D. in development communication, extension, journalism, or development studies
Communication Officer (Business Development)	1	Plan, coordinate and manage business development activities. Deal with client, attract business for print, radio and video	M.Sc. in development communication, extension, journalism, or Public relation
Accountant	1	Maintains accounts for the division. Plans financial aspects of media production.	B. A. or B. Com. with accounting Familiarity with media production
Administrative assistant	2	Maintains division records. Perform secretarial duties.	B. A. or equivalent Typing and computer operation Secretarial skills
Storekeeper	1	Maintain inventory of photographic, video and printing supplies and other office supplies.	I.A. or equivalent
Clerk	1	Assist administrative assistant, storekeeper and other staff as required.	High School Typing
Driver	2	Drive and maintain division vehicles	Driving Motor mechanics
Messenger. Janitor	2	Clean and maintain work environment. Deliver messages. Other duties as required.	Primary school

POSITION	NO. OF STAFF	DUTIES	SKILLS AND QUALIFICATIONS
Radio	6		
Producer/ director	1	Overall responsibility for radio production. Conceptualizes, plans, produces and directs radio programs.	Minimum B. Sc. in or with journalism or development communication (preferably master's degree) Expertise in agriculture. Understanding of research, extension and farmer needs. Skills in scriptwriting and broadcasting Fluency in English and Nepali
Radio broadcaster/Script writer	4	Write and produce radio programs. Conduct interviews with farmers, researchers, policymakers and extension personnel. Perform in and narrate radio and video dramas.	Minimum I. Sc. in or with journalism or development communication Expertise in agriculture Understanding of farmers. Skills in scriptwriting, interviewing and broadcasting Fluency in Nepali and preferably one other Nepali language.
Radio technician	1	Record and edit radio programs	I. Sc. and training in audio electronics and editing.

POSITION	NO. OF STAFF	DUTIES	SKILLS AND QUALIFICATIONS
Video	8		
Producer/director /scriptwriter	2	Conceptualizes and designs programs, writes scripts, determines the treatment of the program, creative inputs. Manages talent and staff, arranges interviews, ensures activities fit within budget. Arranges logistics, arranges studio sets, locations.	Minimum B. Sc. in or with mass communication (preferably M. Sc.) or equivalent experience Expertise in agriculture Knowledge of video equipment capabilities and functioning
Video camera operator	2	Operates camera and lights in studio and on location. Edits footages when needed.	Minimum high school education Expertise in photo composition, camera operation Skill in selecting appropriate angles and shots, video editing
Technical Director/ editor	1	Technical direction during studio recordings, editing during post-production. Operates console during live recordings, sets video and audio levels. Edits footages to produce program under guidance of producer/ director	B. Sc. in or with electronics and communications engineering, video editing Ability to provide creative inputs and guide director on possible treatment
Video Editor	1	Editing during post-production. Operates console during live recordings, sets video and audio levels. Edits footages to produce program under guidance of producer/ director	I. Sc. with experience in electronics and video editing. Ability to provide creative inputs and guide director on possible treatment
Production assistant	1	Assist producer/ director . Labels and identifies footages, maintains library of footages, previews and selects tape, assists producer during editing. , schedules equipment availability for sound and video. Arranges production studio.	I.Sc. in or with communications or equivalent experience Diligent and patient
Audio specialist/ video tape recording assistant	1	Operates portable recorder on location, operates microphone. Sets audio levels, operates lights on location.	High-school education Interest and experience in video and audio recording.

POSITION	NO. OF STAFF	DUTIES	SKILLS AND QUALIFICATIONS
Publications	11		
Publications director	1	Plan, coordinate and manage the design and production of publications. Liaise with MoA 's departments and other partner organizations	M. Sc. in or with journalism or development communication Expertise in agriculture. Understanding of research, extension and farmer needs. Skills in writing, Editing, publications. Computer literate (word processing and desktop publishing) Fluency in English and Nepali.
Editors/ media development Specialist	3	Conceptualizes, designs, writes, edits and proofreads publications. Manages the publication through the production process.	Minimum B. Sc. in or with journalism or communication (preferably M. Sc.) Expertise in agriculture. Understanding of research, extension and farmer needs. Skills in writing, editing, publication. Computer literate (word processing and desktop publishing) Fluency in English and Nepali,
Public relations specialist	1	Develops press releases for print and electronic media. Handles public relations for the division and MOA extension service.	Minimum B. Sc. in or with public relations or journalism Expertise in agriculture. Understanding of extension and farmer needs. Skill in print and electronic media production. Fluency in English and Nepali.
Desktop publishing specialist	2	Design publications. Lays out edited manuscripts on screen. Incorporates graphics in the manuscript. Produces camera-ready output.	Minimum B. Sc. Preferably in journalism, development communication or computer science. Skills in computers, publication design and production. Nepali and English
Computer operator	2	Keyboards manuscripts. Incorporates editorial changes into text. Develops simple desktop published documents. Produces camera-ready outputs.	High school education Skills in typing, computer operation (word processing). Nepali and English
Still photographer	1	Take and process photographs Operate press camera Assist in stripping	High school education Skill in photography and photographic processing
Artist	1	Draws illustrations for inclusion in publications. Develops signsboards, exhibits and displays as required.	Minimum of high school education Skills in drawing (realistic and cartoon) Familiarity with agriculture and rural life in Nepal

POSITION	NO. OF STAFF	DUTIES	SKILLS AND QUALIFICATIONS
Press	7		
Reprographer	1	Prepares printing plates form camera-ready materials.	High school and training in reprography.
Press operator	2	Operates printing press	High school and training in press operation.
Press assistant	2	Assists in press operations, binding, trimming and other production operations	High school education
Distribution officer	1	Manages marketing and distribution of publications and videos. Manages computerized database of addressees. Liaises with other government units and NGOs to enhance distribution. Seek innovative ways of distributing materials cost-effectively.	B. Sc. in marketing, journalism or advertising Strong initiative and interpersonal skills Familiarity with rural life in Nepal
Distribution clerk	1	Handles physical distribution of publications via express delivery, mail or other means.	High school education
Total	43		

Annex II: proposed staff positions, duties and qualification need of RCUs

Position	No. of Staff	Duties	Skill and qualification
Communication Officer (class III)	1	Unit chief, plan, coordinate and manage regional-specific publications, radio and video programmes in collaboration with ACD. Train district staff on audio visual aids, edit and produce agricultural Newsletter	M.Sc.in extension, development communication with graduation in agriculture (B.Sc. Ag)
Junior Technician (Video camera operator)	1	Shoot video film, write script for video and radio. Assist in video and radio programme production. Train district staff on audio visual aids	I. Sc. Agriculture. Training on communication or adult education. Skill in media production.
Junior Technician (Radio Prog. Production)	1	Record radio interviews .Write scripts, produce radio programmes. Assist in other media production train district staff.	I.Sc. agriculture. Training on communication or adult education. Skill in media production
Distribution clerk	1	Handles store and physical distribution of publications published by RCU and received from ACD via express delivery, mail or other means.	High school education
Total	4		

Annex III : The communication planning process

In communication planning, the common approach is to systematically analyze, coordinate and synthesize all the factors involved in achieving a measurable change expected in the target audience's behavior.

The following steps should be carefully considered in the process of developing communication strategies both for ACD and CPDD:

I. Identification and analysis of target audience

Before starting active planning process, an appraisal of needs will have been conducted and the broad goals of the project must be formulated. After this it is very essential to identify all types and level of audience of communication programmes as precisely as possible.

Audience categorizing and analysis must be done in terms of their characteristics i.e. physical (age, sex etc.), psychological (attitude and behaviors etc.) educational (knowledge of the subject, communication behavior) and socio-economic (profession religion etc.). Adequate information about the audience should be available for planning effective communication programme.

II. Formulation of the terminal behavioral objectives

Communication objectives should be stated in line with the specific behavioral changes needed to take place within the audience by the end of the project. It describes specifically, in observable and measurable terms, the change in knowledge, attitude and practice of the audience.

This objectives will provide a firm basis for the formative and summative the project. In addition, they will facilitate the selection and sequencing of messages that need to reach the audience simplify the selection of communication approach and media.

III. Developing communication strategy

One must be able to select the most appropriate communication strategy for achieving the communication objectives. As a general principle, communication research has shown that a combination of media and interpersonal methods is the most effective in persuading people to adopt new ideas and practices. The strategy should include combination of approaches, messages and methods to reach the target audience.

IV. Selection and designing message

One general approaches have been selected, we must begin thinking about exactly what to say and how to say it depending on the audience characteristics. Some guidelines in the selection and organization of messages are

- (a) The message (subject matter) must be related to the required behavior objectives i.e. knowledge and skills required of the audience
- (b) It must be understandable and acceptable to the audience i.e. not conflicting with the audience's social customs and their educational abilities
- (c) It must be organized in the best order for learning i.e. from simple to complex, starting with what the audience already know etc.

V. Monitoring and evaluation

A monitoring and evaluation system must be based on clearly stated objectives and the work plans, which can be used as a base to measure achievement or impact. It is therefore important to establish evaluation criteria and indicators for assessing the progress impact of the programme.

Annex IV: A Brief Field Report (9-16 March 2000)

From 9-16 March 2000, we visited Regional Directorate of Agriculture and livestock services in the mid-west and far west region, Regional Agricultural Research Station in Nepalganj, Regional TV and Radio Station in Kohalpur and Dipayal, some DADO offices, farmers' groups and innovative farmers' fields. During the visit, we held several meetings and discussions with concern individuals and organizations, and recorded radio interviews with group and individuals farmers. The interviews will be used in ACD's farm radio program specially on Wednesday's interview format.

Some of the activities carried out and major problems and issues observed during the visit are briefly summarized.

RAD Surkhet

A meeting was held with RCU staff and discussed about the RCU's communication activities. Also provided some books and manual on radio program production, a hand out on video production and a check list for collecting information on successful cases resulted by the adoption of agricultural technologies (see check list in annex VII). The major issues taken up by the RCU staff are mostly the same as raised during the consultant's earlier visit (August 1999). The issues have been reported and discussed with project coordinator, ACD chief and other concern authorities. Many useful recommendations have been made in the consultant earlier reports. Some of the major issues raised and discussed are briefly reported here for further information and action.

Radio: Weekly radio program are being aired through Radio Nepal's Regional Station Surkhet. RCU staff prepare written script and send to radio station which is then read out by Radio Nepal's announcer. Mostly the programs are straight talk based on the written scripts. Though in our earlier visit (August 1999) we had through discussion and sharing with the RCU staff about the importance and effectiveness of field based interviews of farmers, extensionists and researchers, they have not yet been able to practice these new formats due to unportability of audio recorder. This problem has already been realized by ACD and necessary budget allocation has been proposed for the purchase of light-weight portable recorder for all five RCUs in order to encourage field orientation of radio program.

Video: RCU staff are now moving out to the field to shoot video footage of successful cases resulted by the adoption of improved agricultural practices. Footage quality is improved by many folds than observed in our earlier visit (August 1999) that could partly be the impact of out orientation during August visit and partly the staff self learned on the job. RCU staff have shot some useful video footage on farmers' group activities, farmers school and some successful stories. However, since they do not have editing and production facilities right there, they are looking for ACD's support for editing either in ACD itself or approval to do the job else where in the private video production studios.

RAD Dipayal

It was our first visit to RCU Dipayal. We had meeting and discussion with RCU staff. The discussion and sharing was mainly focused on orientation on different formats of radio and video programs, and information coordination with livestock and other related organizations. RCU staff are fully convinced and committed to take lead in producing regional radio program giving a balance emphasis on crop, livestock, agricultural marketing and other related component of farming.

Regarding radio and video programme production, almost similar situation as in Surkhet is observed in RCU Dipayal too.

Radio: Weekly agricultural radio program (Wednesday 6: 10- 6: 20) is being produced and aired. It is mostly straight announcement. Scripts are written by RCU staff and read by Radio Nepal's announcers. These scripts are mostly based on ACD's extension publications.

According to the RCU staff, here also production of field based radio program is limited due to unportability of audio recorder available in RCU. However, Mr. Prem Raj Ojha, an Extension Officer who is also given RCU's main responsibility, has tried to record some interviews of farmers inviting them at the office. These interviews will be edited in the Radio Nepal's Studio and are broadcast on air.

Video: Regarding video production RCU staff seem to have lacking of very basic skills on camera work such as framing, shot size, camera angle, lens movement etc and basic concept of video documentary production. On contrary RCU is assigned on annual target of a half dozen of video productions.

In order to meet the given target, they have hired a portable VHS camera with camera man from Dhangadi and shot some farmers' successful stories and interviews. We had an opportunity to watch those footages. Those were shot by NTV reporter stationed in Dhangadi in coordination of MR. Prem Raj Ojha, Extension Officer RCU and Mr. Rajendra Mishra, Extension Officer, DADO Dhangadi. At least two video on farmers' successful stories can be made out of these footages. Though visual is recorded by VHS camera, it is relatively well done and can be transferred in U-Matic or BETACAM format and edit to produce acceptable quality for NTV telecast. These footage can also be used in daily agriculture TV program and ACD's fortnightly program converting into suitable format.

Since they do not have editing facility, RCU staff want ACD to edit and produce program or allow them to edit from private video production studio in order to meet the RCU's given target.

Collection of farmers radio interviews

More than a dozen of farmers' (men and women) radio interview are recorded in the field in different sites using a portable audio recorder taken with us from ACD. These radio interviews are recorded with men and women farmers in Surkhet, Dadildhura and Dhangadi districts who have been successfully adopting improved farming practices such as fresh vegetable cultivation, off season vegetable cultivation, potato cultivation, integrated farming, buffalo farming and members of successful group. These interviews are quite useful and will be used on ACD's regular farm broadcast program specially on Wednesday's interview format.

Meeting with Staff of Regional Radio Station (RRS) Dipayal

A meeting was held with the staff of RRS Dipayal where RCU staff were also present. The purpose of the meeting was to develop a functional linkage and establish a cordial relation between RCU and RRS staff so that staff of both the organizations work together to produce better quality and more target specific farm radio program. The meeting has been quite encouraging. Specially the Radio Nepal's program producers and announcers shown their willingness to extend their maximum cooperation to produce and broadcast regional farm radio program. With this, RCU staff were also highly encouraged and committed to work together for producing interesting farm radio program. Now onward at least one staff from RCU will attend the recording and production of farm radio program in RRS that will help learn the skill as well as improve the quality of program by monitoring the program before transmitting on air.

Visit to RARS Nepalganj

A short meeting and discussion was held with Director, RARS Mr. Sambhu Pandey and other staff. The main issues discussed were roles and function of proposed Communication, Publication and Documentation unit, its staff, their duties and qualification, and its programs and activities. Though it was a short meeting, it helped to build a basis for development of detail plan and strategy for RCPDU. Director Mr. Pandey has fully realized the need to establish

communication, publication and documentation unit in order to disseminate the result of RARS's research to different levels of audiences. He assured that communication unit will be started within a week. Though there is a shortage of manpower at present, an arrangement would likely to be made to assign some outreach staff to take up the responsibilities of RCPDU. Later on appropriate arrangement will be made either by adjusting the existing staff or by appointing new staff to run RCPDU's activities effectively.

Visit to NTV Kohalpur

NTV's Regional Station Kohalpur was visited on 15 March. The purpose of the visit was to establish good linkage and coordination between RARS, RCU and Regional TV station so as to facilitate the flow of agricultural information from research station to media and then to farming communities. During the visit a brief meeting and discussion was held with station chief Mr. Man Bahadur Ghale. The meeting has been encouraging in the sense that Mr. Ghale and his staff agreed to extend their full cooperation to orient or provided attachment training to RCU and RARS appropriate staff in video camera operation and production techniques if requested. We also discussed and agreed on other possible help NTV Kohalpur can provide such as regional agricultural events and activities in regional TV programme, transfer of S-VHS footage to BETACAM format and send them to Kathmandu for use in daily TV programme on agriculture .

Meeting with Regional Director, DLS, Far-West Region Dipayal

A meeting was held with Dr. K. B. Bogati, Regional Director of DLS in Dhangadi where he was participating in a workshop. The main issues discussed in the meeting were the coordinated use of RCU resources, forming a regional agricultural communication coordination committee and assigning at least one person from RD of DLS to play a role of contact person for coordinating and channelizing livestock related information. Dr. Bogati has assured to take action on all the above issues positively.

Other observation and suggestions

- **Norms for RCU's budget expenditure:** It is understood that RAD/ RCU staff are not very clear on how and where to spend the budget allocated for RCU. This issue was raised by RCU staff both in Surkhet and Dipayal. Therefore, it seems essential for ACD to develop a detail norm for an appropriate utilization of allocated budget.
- **Skill enhancement training:** Communication related skills such as video camera operation and video production techniques, radio program production techniques, audio- visual equipment operation and maintenance, writing for radio, video, successful stories and extension publication, press releases are the basic skills urgently need to be provided to RCU staff. ACD management should take firm initiative to conduct training courses as has been recommended by the consultant in the earlier reports. Without these basic skills no desired output can be yielded by RCU staff.
- **Equipment:** It is observed that no significant progress has been made to record field based radio interviews due to the unportability of the audio recorder. RCU staff have been fully convinced the importance and effectiveness of field based radio programs. Therefore, in order to achieve significant improvement in regional farm radio program the RCUs should be provided with lightweight portable audio recorder and accessories. Budget has been proposed for portable audio equipment for the coming fiscal year. Hopefully, it will be approved.

Annex V: ACD's information flow

Annex VI: Types of communication media for extension support

INDIVIDUAL	GROUP	MASS
Personal contact	Meetings	Pamphlets
Telephone calls	Study tours	Posters
Personal letters	Role playing	Newsletters
Technical manuals	Group discussion	Radio
Tutorials	OHT	Television
Self-learning	Slides	Newspapers
	Video show	Stamps
	Demonstrations	Calendars
	Flannel boards	Banners
	Models	Billboards
	Blackboards	Slogans
	Wall charts	Booklets
	Drama groups	

Annex VII: Check list for collection of information for successful story

1. Name and address of farmer/group:
2. Type of the enterprise:
3. Location of enterprise:
4. Background information:
5. Scale of enterprise:
6. When is it started:
7. How is it initiated:
8. Operation and management of enterprise:
9. Cost (Physical, financial, labpur):
10. Financial, technical and input support (Government, NGO, Others):
11. Income (per season or per annum as appropriate):
12. Marketing of the produces:
 - a) Market centre:
 - b) Distance of market place from the location of the enterprise:
 - c) Means of transportation:
13. Detail profile of the enterprise (investment, area coverage, return, Social and economic impact such as children's education, housing improvement, improvement in food and nutrition, health, hygiene etc):
14. What do the owner (s) say about the success of the enterprise, use farmers own version in quotation mark:
15. Problem faced by the enterprise and efforts made towards solving them:
16. Future of the enterprise:
17. Impact of the enterprise in the localities:
18. Possible impact on the overall agricultural development in the country
19. Lesson learned and implication to wider adoption
20. And also do not forget to take good quality photographs and find information on award and recognition to the enterprise