



Ministry of Agriculture, Forestry, and Fisheries

Agricultural Extension Policy in Cambodia

2015

FORWARD

The royal government of Cambodia (RGC) has made a firm commitment to ensure continued implementation of ***the Rectangular Strategy III***, including further improvement of the agriculture sector with new pace and scale, aiming at strengthening and expanding the foundation for economic growth, accelerating poverty reduction, and improving the living standards of the Cambodian people.

Agriculture is an important sector in supporting economic growth, ensuring equity and food security, and enhancing rural economic development. The sector employs nearly 64.6 percent of the country's labor force and contributes about 31.6 percent to the gross domestic product. In realizing the vision of agricultural sector development, the RGC has adopted a three-pronged strategy -- productivity enhancement, diversification and agricultural commercialization through implementing a package of interrelated measures -- infrastructure building and enhancement (roads, irrigation, energy/electricity, and Information and Communication Technologies (ICTs); improvement in the provision of extension services; and improved agricultural inputs, land management reform, finance, marketing, farmer organization, and institutional building and coordination.

The RGC set out a policy, Promotion of Rice Production and Export, in 2010 by issuing significant policy measures of each stage, including (1) measures related to paddy rice production, (2) measures on paddy rice collection and processing, (3) measures on logistics, and (4) measures related to marketing. To implement the policy, the Ministry of Agriculture, Forestry and Fisheries (MAFF) formulated a very detailed implementation plan to respond and achieve those measures effectively through increasing supporting services and interventions such as transferring appropriate technology and techniques to farmers and intensifying rice variety development research to ensure better suitability to soil and climate conditions, and market demand.

Agricultural extension plays a very significant role in implementing the RGC's policy and strategy on agricultural development. To realize modernization and promotion of commercialization, there is need to develop an agricultural extension system that transfers knowledge, information, and technology to farmers and farming communities and links them to markets.

The current agricultural extension system is facing numerous problems, such as limited supporting system and regulations, and lack of human resources, funding, technique and new technology, appropriate technology package, agricultural extension materials, and facilitation skills.

The MAFF has been addressing these issues accordingly, especially by formulating the agricultural extension policy, which is an essential instrument to organize, strengthen, and support mechanisms, regulations, human resource development, techniques and technology development, and methods and approaches for delivering agricultural extension services in order to meet farmers' needs and market demands. The agricultural extension policy will serve as a foundation for and provide direction toward effective service delivery to farmers and farming communities so that they can make the right

decisions for their production operations and agricultural commercialization to generate and increase household income.

The MAFF has a very strong commitment to and motivation in leading the implementation of this policy, and would like to appeal to and encourage all extension services providers in both the public and private sectors, development partners, farmers, and farming communities to cooperate and support the implementation of this policy fruitfully and effectively, which is aim at further strengthening the foundation for economic growth and accelerating poverty reduction.

Phnom Penh, April 01, 2015

**Minister of Ministry of Agriculture, Forestry and
Fisheries**

H.E. Dr. Ouk Rabun

Preface

Agricultural extension plays an important role in educating, training, and transferring technologies and innovations to farmers and farming communities to improve agricultural productivity, diversification, and commercialization. In Cambodia, agricultural extension began in 1957, when its structure and infrastructure were started. Since then, it has evolved through many generations and made significant progress. To date, however, there is no appropriate policy framework to respond to Cambodia's changing contexts and needs.

The Ministry of Agriculture, Forestry and Fisheries, with technical and financial support from the United States Agency for International Development (USAID), established a working group and an advisory committee to develop an agricultural extension policy and guidelines in Cambodia. The working group derived the basis for this policy from studying relevant documents, learning about extension services operations in neighboring countries, and incorporating inputs from many regional and national consultation workshops with diverse stakeholders, including subject matter agencies, development partners, private sector, non-government organizations, and farmers.

With the theme of "Extension Services for Better Well-being," this agricultural extension policy document aims to support, facilitate, and coordinate the work of all extension services providers in Cambodia so that farmers and farming communities receive regular extension services and timely, adequate, accessible, and adaptable technical information.

We are grateful to all the participants who attended the five regional and three national consultation workshops on agricultural extension policy formulation and provided invaluable input on major challenges, needs, and key issues facing the extension services in Cambodia. We would like to thank USAID/Cambodia, through its Cambodia HARVEST Program, for its financial and technical support for the preparation of the agricultural extension policy in Cambodia. We would also like to acknowledge the Australian government, through the Cambodia Agricultural Value Chain Project (CAVAC), for its funding support of the working group to conduct the study visits to Vietnam and Thailand. Such contributions from all the stakeholders resulted in formulation and adoption of the Agricultural Extension Policy in Cambodia, which serves as a foundation for and provides direction toward effective service delivery to farmers and farming communities so that they can make sound decisions to increase their agricultural productivity, diversification, commercialization, and income.

Phnom Penh, April 01, 2015

Director General of the General Directorate of Agriculture

SO Khan Rithykun

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Agricultural Extension Policy in Cambodia

1. Introduction

1. Agriculture remains the backbone of Cambodia's economy -- 80 percent of its population lives in rural areas and depends primarily on agricultural production for food supply, family income, and livelihood. The vision of the royal government of Cambodia (RGC) is to modernize Cambodia's agriculture by increasing value added in the sector and promoting agricultural value chain responsiveness to market demand and regional and global competition. In this context, the RGC continues to focus on enhancing agricultural productivity, diversification, and commercialization; promoting livestock farming and aquaculture, sustainable forestry and fisheries resources management; and strengthening institutional capacity, enhancing efficiency of support services, and developing human resources in the agricultural sector.

2. To achieve this vision requires application of new techniques, technology, and innovations; technically sound use of agricultural inputs and mechanisms; competent and effective human resources to support, provide services, and coordinate; and technology, methods, and sufficient and appropriate instruments as well as an enabling environment for farmers and farming communities to access and adopt new techniques and technology effectively and efficiently.

3. Currently, although significant research and development and extension of agricultural techniques have been undertaken by a number of stakeholders, access to and adoption of new techniques and technology by farmers and farming communities is quite limited. This has resulted in slow growth of productivity, slow economic growth and poverty reduction, and farmers abandoning agricultural work, selling farmland and out-migrating to find other jobs for their livelihood. These problems arise because of lack of or limited agricultural extension services, regulations, and system; lack of human resources, funding, techniques, and technology; lack of extension materials and packaging; and limited agricultural extension methodology and means.

4. Addressing these problems requires preparation, strengthening, and support of mechanisms and regulations: and development of human resources, techniques, and technology, as well as methods and means to provide extension services on the basis of demand by users and markets. If the RGC promotes and increases investment in agricultural extension, labor productivity in the agricultural sector and land productivity will increase significantly. Thus, agricultural extension in Cambodia is the foundation and guide to providing effective agricultural extension services for farmers and farming communities

to make well-grounded decisions that will increase productivity, diversify and commercialize agriculture, and increase income.

2. Vision

5. The vision of the Agricultural Extension Policy in Cambodia is to increase the effectiveness of agricultural extension services delivery to improve the livelihoods and well-being of the Cambodian people.

3. Goal and Objectives:

3.1. Goal

6. All Cambodian farmers and farming communities will access and adopt improved agricultural knowledge, information, and technologies to enhance agricultural productivity, diversification, commercialization, and sustainable natural resources management.

3.2. Objectives:

7. Efforts toward meeting the following objectives will contribute to achieving the vision and goal of the Agricultural Extension Policy. Broad objectives are:

- To improve effectiveness of agricultural extension institutions and systems at all levels for effective operation, cooperation, and coordination, and strengthen linkages among all the stakeholders.
- To improve human resource capacity and capability in delivering extension services in response to local needs and market demand.
- To research and develop appropriate technologies and make them available, accessible, and applicable to farmers.
- To develop extension materials and promote effective access to and use of agricultural knowledge, information, and technologies.
- To effectively deliver extension services to improve decision making among farmers and farming communities for increasing agricultural productivity, diversification, commercialization, and income generation.

4. Strategies

8. Agricultural extension services delivery should be based on strong linkages between three key actors: farmers, researchers, and extension institutions. The linkage mechanisms

include policy and regulations, institutional structure and organization, and operations for extension services delivery.

9. The MAFF will provide direct extension advice to farmers and farming communities. The ministry will also supervise and regulate the agricultural extension services provided by others. The theme for Cambodian agricultural extension service will be **“Extension Service for Better Well-being.”**

10. The agricultural extension services will follow a well-coordinated, decentralized, market-driven, and participatory approach. This will ensure that the services will respond to user demand and emerging opportunities. The following strategies are envisioned to achieve the agricultural extension strategic goal and objectives.

4.1. Demand-driven Agricultural Extension

11. Agricultural extension will shift its strategy from a supply-driven extension-for-production approach to a demand-driven, extension-for-market, -competition, and – sustainability approach. For these purposes, there will be analysis of farmers’ socioeconomic and agro-ecological conditions, local opportunities and constraints; and infrastructural analysis focusing on roads (access and quality), irrigation, water, electricity, financial services, etc., that provide enabling conditions for improved agriculture.

12. Agricultural extension programs and activities will be developed to address national, provincial, and district agricultural development needs and priorities. In each district, specific target goals and objectives will be developed in collaboration with agricultural researchers, market researchers, development professionals such as rural development officers and climate change officers; and non-governmental organizations (NGOs), community-based organizations (CBOs), farmer organizations, banks, and the private sector.

13. Consistent with the RGC’s reform programs, agricultural extension services and activities will be decentralized by strengthening capacity of the staff members at the district and commune levels, particularly in the areas of planning and value chain facilitation. By 2020, the district agricultural office (DAO), including the district technical support team (DTST), will be the main entity for providing technical support and extension training at the local level. A longer term goal is to develop commune extension centers (CECs) to provide extension services directly to farmers and their organizations from a nearby location.

4.2. Institutionalization, Regulations, and Partnerships

14. The MAFF will be strengthened and adequately resourced, and will play a role in extension quality assurance by developing and implementing new guidelines and regulations for extension services providers, and by promoting strong collaboration and networking among development partners (DPs), NGOs, CBOs, universities, and private service partners.

15. To this end, it is recognized that development partners, NGOs, research and educational institutions, input suppliers, private companies, CBOs, expert farmers, farmer promoters, consultants/agricultural agents, and possibly religious institutions all are important players in provision of agricultural extension services.

16. To facilitate such a diverse and pluralistic extension services system, the MAFF will set up and use the Agricultural Extension Advisory Committee (AEAC) to coordinate agricultural extension services provided by multiple parties in a pluralistic system.

17. The Department of Agricultural Extension (DAE) of the General Directorate of Agriculture (GDA) will engage partners in monitoring and evaluating extension services. The DAE will hold an annual forum with diverse stakeholders, especially farmer organizations, to share experiences and lessons learned.

18. The Provincial Department of Agriculture (PDA), with support of the DAE, will create a forum at the district agriculture office (DAO) level in which diverse stakeholders in agriculture are represented. This platform will be used to promote and coordinate the creation of networks and linkages.

19. The DAO, with support of the PDA, will facilitate agreements and agricultural work and mainstream these into the commune development plan and investment plan process, discussed in district integration workshops, and will facilitate meetings or forums with agricultural extension services providers at the local level.

20. The DAE will develop an agricultural extension hub, which will include creating an Information and Communication Technologies and Mass Media Center and an online network of extension workers at provincial and district levels. The DAE also will collect and disseminate/circulate new information and techniques to the network in a timely manner.

21. It is recognized that the private sector generally has a profit motive and operates in a different way than the public sector. In certain aspects, private services are better prepared and implemented independently from government. As one of several extension services providers, however, the private sector must be operating within the regulatory framework of the government.

22. Under the Agricultural Extension Services Policy, the MAFF will be creating a favorable environment for the private sector to take a greater role in providing extension services to rural people through:

- a. Instituting measures to privatize extension partially or fully, but only when and where it is socially and economically feasible.
- b. Gradually instituting a process starting with cost sharing and partial cost recovery, then progressively moving to privatize services based on clientele's ability to pay for the services.
- c. Working out modalities for contracting extension services among private, NGO, and public sector service providers.

23. At the same time, the GDA and concerned departments of the MAFF will:

- a. Establish clear accountability measures needed to monitor and evaluate the activities and performance of the agricultural extension services of all extension service providers to ensure accountability.
- b. Establish standard payments by external actors for honorariums, per diems, and other aspects of program/project operations when DAE staff members collaborate with development partners, private sector representatives, NGOs, local authorities, and farmer organizations.

4.3. Strengthening Agricultural Education Institutions

24. Two broad types of agricultural education institutions exist in Cambodia: formal and non-formal institutions. Formal agricultural education institutions -- including universities, agricultural schools, and agricultural training centers -- offer undergraduate and graduate degrees. Non-formal agricultural education (agricultural extension to address topics related to crops, livestock, aquaculture, and others) is provided by many agencies, including the Department of Agricultural Extension, the Regional Agriculture Research and Training Centers of GDA, non-governmental organizations (NGOs), farmer promoters, commercial traders, and input suppliers.

25. The MAFF will strengthen educational and training institutions by:

- a. Making new investments in agricultural education and training institutions to ensure adequate resources to expand and strengthen their ability to address limited human resource capacity with respect to number, knowledge, and skills.
- b. Training an adequate number of extension workers, both men and women, and developing strategies to retain workers within the extension profession by maintaining market competitiveness.
- c. Integrating agricultural extension curricula and topics in all agricultural education and training programs.
- d. Engaging youth in agricultural extension dissemination programs.

4.4. Technology Development, Packaging, and Learning

26. Research about and development of new technologies that respond to client needs are important contributors to ensuring vibrant extension services. Currently, a considerable amount of research and development is publicly funded by GDA field research stations and agricultural research and development institutes such as Cambodia Agriculture and Rural Development Institute (CARDI) and other research institutes.

27. Agricultural extension services will address these issues by:

- a. Establishing an Agricultural Extension Advisory Committee with a mandate to fully support the DAE at the national level to coordinate, guide, and provide oversight for improving linkages among agricultural research, education, and training institutions.
- b. Resourcing and requiring agricultural research and educational institutions to develop location-specific, need-based, demand-driven knowledge, information, and technologies to serve farmers and farming communities.
- c. Organizing annual forums to share new innovations, technologies, and best practices among stakeholders.
- d. Developing a clear monitoring, evaluation, and learning system to track and validate progress in achieving agricultural extension services goals and objectives.

4.5. Agricultural Extension Approaches and Methods

28. Agricultural extension services providers will apply innovative and effective extension approaches and methods, especially using information and communication technologies (ICTs) as the means for delivering messages. This will be accomplished by:

- a. Adopting an integrated farming systems approach for sustainable agricultural development.
- b. Supporting all categories of farmers by promoting demand-driven and beneficiary-led approaches in the selection of new yield-increasing technologies and/or more profitable practices.
- c. Working with farmer groups of all kinds and taking into consideration the importance of indigenous or farmer-invented knowledge and technologies.
- d. Building into the agricultural system sustainability mechanisms such as cost sharing and partial cost recovery, then gradually moving to a full-cost recovery system for services and discourage dependency.
- e. Supporting pluralism in service delivery (i.e., providing integrated extension support to farmers) and promoting strong stakeholder collaboration and networking to build synergy and enhance efficiency in resource utilization.
- f. Using multidisciplinary teams for holistic solving of farmers' problems.

- g. Using a mix of ICTs, field demonstrations, farmer field schools, study visits, call centers, farmer trainings, mass media-based extension campaigns, publications, radio, and television for wide coverage and enhanced sharing of information.
- h. Motivating the private sector to establish and operate ICT-based rural information centers (one example is using smart phones to share market information) and establish community-based farm radio and TV programs.
- i. Investing in development of quality content, with regular updates, in response to farmers' needs and priorities.

4.6. Mainstreaming Cross-cutting Issues in Agricultural Extension Services

29. The DAE of GDA will collaborate with relevant institutions, development partners, and NGOs to address current critical issues -- namely, agricultural water planning and management, climate change-related issues such as drought and flood, insect and disease epidemics (both communicable and waterborne diseases), food safety and related issues (such as short- and long-term contamination of products as a result of using unsafe inputs and other resources), and nutrition.

30. Extension programs will mainstream environment- and natural resources-related issues as well as health issues in extension messages by imparting knowledge on:

- a. Best practices for watershed management, soil and water conservation, and agroforestry.
- b. Safe and responsible use and disposal of waste, unused substances, and agrochemicals that have negative impacts on human and animal health.
- c. Proper management of farming-related waste (from crops and animals) to maximize its use and minimize negative effects on the environment and climate change processes.

31. Emphasis will be given to gender-equitable, socially inclusive, and participatory planning and delivery of extension services.

32. Women play important roles in agricultural production, postharvest processing, and marketing. Extension will address gender issues in agricultural development by:

- a. Recruiting and training female extension workers.
- b. Developing gender-sensitive technologies.
- c. Conducting local needs assessments.
- d. Developing programs to address local needs.
- e. Collecting gender- and age-disaggregated data.
- f. Monitoring gender targets.
- g. Mainstreaming gender issues during in-service training and within training institutions' curricula.

4.7. Sustainable Financing of Agricultural Extension Services

33. Current sources of funding for agricultural extension services come from the government, development partners, NGOs, and the private sector. The royal government of Cambodia (RGC) eventually will be the main source of funding for extension services provision, especially to smallholder farmers. Provision of extension services will be retained within the RGC, with partial or gradual privatization when and where it is socially acceptable and economically viable. To expand its services, the DAE of GDA will:

- a. Ensure regular financial support from the government for agricultural extension operations and services.
- b. Seek funding from development partners to support agricultural extension services as a core activity.
- c. Provide a business-enabling environment for the private sector to invest in agricultural extension services and activities.
- d. Implement self-financed extension strategies such as self-financing field schools that use preseason, interest-free extension loans.
- e. Develop joint financing or public-private partnerships, pay-for-service, and/or cost-recovery systems for extension activities.

5. Action Plan

34. The following five policy measures are essential for implementation of the agricultural extension policy through the programs and action plans to be developed by the DAE of GDA and other line agencies of the MAFF.

5.1. Institutional Organization and Legal Framework

35. The role of public agricultural extension is, on the one hand, to act as an intermediary between farmers and researchers, input and credit suppliers, and private sector representatives, and, on the other hand, to intervene in agricultural technologies and information. In addition, its role is to stimulate a learning process in which both extension workers and farmers participate. Principal functions of agricultural extension are to:

- a. Analyze farmers' socioeconomic and agro-ecological conditions, opportunities, and constraints, then address the problems and constraints.
- b. Transfer information and messages through training courses, mass media, and direct contact between extension agents and farmers.
- c. Provide timely feedback to researchers on farmers' reactions to new technologies as a way to refine the research agenda.

- d. Develop linkages among researchers, government planners, NGOs, farmers' organizations, CBOs, farmer promoters, financial institutions, and private sector representatives.

36. The national mandate for public agricultural extension in Cambodia lies with the DAE of the GDA under the Ministry of Agriculture, Forestry and Fisheries, and field offices at the provincial and district levels. The DAE of GDA will be supported by related technical agencies under the MAFF.

37. The MAFF will provide the overall policy and guidance on agricultural extension services, coordinate extension activities, enforce laws and regulations, facilitate the development of the extension strategy and plan, and provide needed technical assistance. The MAFF will offer public extension services around production, marketing, and processing of major crops and livestock (e.g., rice, vegetables, rubber, agro-industrial crops, livestock, aquaculture products, and agro-forestry) in a well-coordinated manner.

38. The MAFF will have the Agricultural Extension Advisory Committee to guide and facilitate coordinated extension programs. The advisory committee will include members from GDA, CARDI, Royal University of Agriculture (RUA), National School of Agriculture Prek Leak (NSAPL), National School of Agriculture Kampong Cham (NSAKC), Fisheries Administration (FiA), Forestry Administration (FA), Department of Animal Health and Production (DAHP), Department of Planning and Statistics (DPS), and General Directorate of rubber (GDR), and the private sector. Key functions of the committee will include coordination of activities related to research, extension, and training; guidance of research and development (R&D); and communications. The DAE will serve as secretariat to the committee.

39. The MAFF also will have a National Agricultural Technology Subcommittee to guide the development of agricultural technology. The technology committee will include members from GDA, CARDI, RUA, SAPL, NSAKC, FiA, FA, DAHP, GDR, and the private sector. The committee will focus on coordinating activities related to research and development (R&D). The GDA will serve as secretariat to the subcommittee.

40. The government will fund and support the DAE as well as other line agencies of the MAFF for their provision of public extension services. However, selected extension services gradually will be privatized and commercialized. Examples include medium- and large-scale farmers such as rubber growers and agro-industry producers of black pepper, livestock, and aquaculture.

41. In recognition of the increasing role of other stakeholders in extension services provision, the DAE of GDA will:

- a. Promote pluralism in extension services delivery through pluralistic extension networks and platforms to coordinate extension services for improved quality services.
- b. Continue to be involved in providing agricultural extension services where private sector participation is low.
- c. Invest in building capacity of extension service providers, extension clientele, and relevant institutions.
- d. Promote decentralized and deconcentrated extension services provision through clientele organizations and other grass-roots institutions at all levels, in line with the RGC devolved structures.
- e. Monitor and evaluate to ensure the quality and performance of agricultural extension services at all levels.

42. Partnerships, collaboration, and networking are important aspects of pluralistic agricultural extension services. The effectiveness of agricultural extension services tends to be related directly to the degree of collaboration and networking among service providers.

43. Thus, RGC-funded agricultural extension services will be delivered at the national and subnational levels through entities such as the PDA, district agriculture offices, and commune agriculture centers.

Major roles and functions of the various units will include the following:

44. **The Department of Agricultural Extension**, with guidance from the Agricultural Extension Advisory Committee, will provide leadership in the operation and management of agricultural extension services, including:

- a. Setting national agricultural extension priorities in line with the MAFF's current agricultural sector strategy and policy.
- b. Managing extension personnel and agricultural extension training.
- c. Supporting development of the budget plan for extension services.
- d. Developing an environment under which private and NGO sector and development partners are encouraged to participate in extension services.
- e. Strengthening linkages with research, education, and private sector partners through quarterly meetings of stakeholders.
- f. Managing an information and communication unit that coordinates the provision of extension media and materials to complement/supplement extension programs and activities.
- g. Implementing an accountability system to demonstrate effectiveness by initiating a robust monitoring and evaluation system, including a management information system (MIS) database for each district.

- h. Establishing a voice and SMS hotline for reporting animal diseases and forest infractions, and providing a question-and-answer service.

45. The DAE of GDA, in collaboration with stakeholders, will develop guidelines, a code of conduct, and working standards for extension services providers to assure quality and positive impacts of extension services. Quality assurance in extension services delivery will be achieved through the following measures:

- a. Establishing a minimum level of acceptable qualifications for extension agents.
- b. Developing guidelines for operation of extension programs at the district level.
- c. Creating and implementing an accountability and rating system for service delivery agencies.

46. The Provincial Department of Agriculture (PDA):

- a) Must create a team of agricultural extension officers (AEOs) and subject matter specialists (SMSs) who have responsibilities for creating research-extension linkages, monitoring district agricultural extension programs, and training district staff members.
- b) Must coordinate extension programs and activities, including those of fisheries and forestry cantonments, the district agricultural office, agricultural research stations, agriculture development centers, commune agriculture centers, farmer associations/cooperatives, and private sector organizations (such as input suppliers of seeds, chemical pesticides, fertilizers, agricultural machinery, etc.).
- c) The PDA will establish a district technical support team (DTST) to support the DAO in providing extension services.

47. The District Agriculture Offices (DAOs):

- a) Must have the responsibility of developing and managing extension programs for their respective districts.
- b) Must ensure coordination of extension programs and activities with commune development and investment plans.
- c) District staff members will be supported technically by subject matter specialists (SMSs) from the provincial department of agriculture. The DAE will ensure professional development of extension staff members through regular in-service workshops and seminars.

48. Stakeholders of agricultural extension:

- a) Agricultural extension services can be offered by development partners, civil society organizations, agriculture/extension agents, consultants, universities, training centers, research institutes, the private sector, farmer groups/organizations, CBOs, and religious institutions/pagodas/monks in partnership with the MAFF (DAE of GDA) and the PDA.

- b) All development partners, NGOs/CBOs, and the private sector are expected to collaborate with the DAE of GDA and the PDA and district extension offices to address the issue of lack of coordination between government- and donor-funded programs and projects.

49. Planning and delivery of extension services must involve NGOs, CBOs, and private sector organizations such as seed companies and agricultural trading companies. Public-private partnerships will be used to increase competitiveness and assure quality of the supply of agricultural inputs, institutional credit, marketing, processing, and value addition.

5.2. Human Resources Development

50. Extension service providers at the national and subnational levels will assess training needs for their personnel, then implement plans to ensure that:

- a. Curricula for preservice training at the Royal University of Agriculture and other technical agriculture schools/colleges are updated to meet the core competency needs of extension workers under the new and innovative extension programs.
- b. In-service professional development plans are developed to provide initial and refresher training for extension personnel to familiarize with the new extension services provision philosophy.
- c. Gender is especially considered in human resource development, recruitment, and deployment.
- d. Extension professionals have status similar to professionals in other agricultural disciplines.
- e. Gender-neutral uniforms are provided for extension workers.
- f. A national forum on agricultural extension is held regularly to create awareness, generate knowledge, exchange ideas, and share experiences and lessons learned.

51. Cambodia's agricultural extension service will have at least four types of agricultural extension workers: agricultural extension specialists, agricultural extension advisors, commune extension workers (CEWs), and village extension workers (VEWs). For these extension workers to be effective in the various roles, a recommended minimum level of education and/or or training shall be required for each type of extension worker. The intent is for extension personnel to be well-trained, skilled, motivated, and empowered to perform their duties. All professional extension staff members assigned at a district agricultural office and above will have at least an associate degree. Extension staff members will receive regular in-service training at regional agricultural research and training institutes on emerging important issues. Each year, selected extension staff members will receive scholarships to advance their training in their respective fields. (See Table 1 for a summary of extension service worker education and training requirements.)

Table 1. *Minimum Education and Training Requirements for Agricultural Extension Workers.*

Type of extension workers	Minimum educational requirements
1. Agricultural extension specialist	4-year bachelor's degree in agriculture + a 6- to 9-month extension diploma
2. Agricultural extension advisor	2-year diploma + a 3- to 6-month extension skills course
3. Commune extension worker (CEW)	2-month extension course and technical skills
4. Village extension worker (VEW)	2-week training on extension methods and technical skills

52. Formal agricultural training institutions, including the Royal University of Agriculture, the National School of Agriculture Prek Leap, the National School of Agriculture Kampong Cham, and other educational institutions, will provide diploma courses and in-service training for agricultural extension workers.

53. Training of CEWs and VEWs will be based on local needs and demands, as indicated in the DAE guidelines. Recruitment of female extension workers will be especially encouraged.

54. Research, training, and development centers/stations of the GDA and other agencies will provide field practicums for universities and schools. In-service training opportunities, including certificate programs, will be open to employees of private institutions that are registered with the relevant ministries.

55. The MAFF's GDA/DAE and relevant line agencies will invest in improving the quality of agricultural extension workers through:

- a. Facilitating and coordinating provision of scholarships for local and international study.
- b. Offering training-of-trainer (TOT) and refresher training courses about extension core competencies for extension workers.
- c. Building capacity of extension trainers through refresher courses and study tours.
- d. Developing training modules for extension workers to reach the standards of other countries in the region.
- e. Employing a staff appraisal system to provide incentives, recognition, and awards to outstanding extension workers.

56. To create an effective pluralistic extension system, one objective is that, within five years, at least one agricultural extension officer (specialist or advisor) will be employed to cover each 1,000 farming households. Thus, 2,000 graduates having two- or four-year diplomas will be needed to cover a total 2 million farming households.

5.3. Technology Development

57. Technology development, dissemination, and implementation will be an important cornerstone of an effective pluralistic extension system. Numerous agencies and organizations will contribute to this effort in a variety of ways.

58. The MAFF, through research and development institutions, agricultural universities and schools, and line agencies, and in cooperation with the private sector, civil societies, and other stakeholders, will:

- a. Develop agricultural research priorities and sustainable funding mechanisms to increase funding levels for technology development, packaging, and dissemination.
- b. Charge the National Agricultural Technical Subcommittee with strengthening coordination of research activities by existing institutions by organizing annual forums for agricultural research stakeholders.
- c. Ensure that technology development is market- and demand-driven.
- d. Ensure that line agencies, research organizations, and training institutions establish functional linkages among research–extension–education and farmer organizations.
- e. Promote research and exchange visits with international institutions.

59. Agricultural research and technology development will cover:

- a. Rice, field crops, horticulture (fruits, vegetables, and ornamentals), and industrial crop production.
- b. Rubber production.
- c. Animal health and production.
- d. Aquaculture and fisheries.
- e. Forestry.
- f. Adaptation to climate change.
- g. Agricultural marketing and new market opportunities.
- h. Postharvest handling and processing.
- i. Quality and safety of agricultural products and food safety.

60. New agricultural technologies, practices, and messages will focus on:

- a. Location-specific, research-based technologies to increase production and efficiency.
- b. The whole value chain -- production, value addition, storage, marketing, and utilization.
- c. Transformation of agriculture from subsistence farming to farming as profitable business.
- d. Quality standards for inputs and products, food safety measures, and fair pricing to achieve better quality commodities.

- e. Socially justified, economically viable, and environmentally friendly content and context of the technologies to be developed and transferred.

5.4. Extension Materials Development

61. The DAE and other line agencies of the MAFF, as well as other actors in agricultural extension, will develop extension materials generated from research and development activities. The materials will cover the following broad categories:

- a. Cultural practices and production techniques (e.g., crop production, crop protection, rubber production, use of inputs, animal husbandry and veterinary services, agro-forestry, aquaculture, and farming systems).
- b. Farm management (e.g., bookkeeping, financial and organizational management, and legal issues).
- c. Marketing and processing information (e.g., prices and pricing strategies, market options, and postharvest technologies such as packing and storage procedures).
- d. Community development (e.g., facilitating development of farmers' groups, farmers' organizations, and agricultural cooperatives).

62. Agricultural extension content and messages will be demand-driven. Within the framework of broad messages identified above, content will include information about the following specific topics:

- a. Product quality and safety.
- b. Price (including value-added/premium price and stable price through contract farming and standards provided by fair and decent contracts).
- c. Cropping calendar.
- d. Production techniques.
- e. Product appearance.
- f. Client preferences.
- g. Market trends.
- h. Farm economic analysis.
- i. Supporting services (private sector, civil society, public sector).

63. To continually improve the quality of extension materials, the DAE and other responsible line agencies of the MAFF will undertake periodic reviews of training curricula to respond to the changing needs of the clients and regional/global trends.

5.5. Extension Services Delivery

64. Reaching such diverse and widespread communities will require a variety of methods and information systems:

- a. Field demonstrations.
- b. Farmer field schools.
- c. Study visits.
- d. Call centers.
- e. Farmers' trainings.
- f. ICTs.
- g. Mass media-based extension campaigns (e.g., via radio and television).
- h. Publications (e.g., leaflets, booklets), posters, and exhibitions.

65. Advancements in information and communication technologies (ICTs) and mass media have had and will continue to have a profound effect on extension. ICTs play an essential role in technology transfer, market linkages, early warning systems, and climate change adaptation. Therefore, effective exploitation of ICT advances will be necessary to disseminate research results widely and rapidly. Recognizing the benefits of using ICTs, the DAE of GDA and line agencies of the MAFF gradually will empower extension workers to acquire and employ diverse skills and abilities related to service delivery, to include:

- a. Use of computers for information access and transfer.
- b. Effective use of voice-based information delivery services such as a telephone call-in centers.
- c. Use of radio broadcasts to provide timely information about market prices, crop production alerts, insects and diseases, and other relevant information.
- d. Use of SMS-based services to collect and disseminate information.
- e. Development of e-learning materials that allow clients to access Internet-based resources, especially using geolocation applications to identify specific agroecological zone information.
- f. Use of mass media technologies (radio, television, newspaper, social media, and Internet) for extension.
- g. Sharing of information via the Internet and mobile phones.

6. Financial support and Implementation Framework

6.1. Financial Support

66. The RGC will be the primary source of financing for agricultural extension services through the MAFF by the program-based budgeting mechanism. Having this stable financial resource should result in the ability to propose and implement long-term programs and annual plans by relevant agencies at national and subnational levels, including budget plans at the commune level.

67. Funding from development partners to complement the government's agricultural extension services remains crucially important. Agricultural development projects financed by development partners, whether the projects are implemented by government or non-government entities, generally are of remarkable size and should continue to play a major role in extension services provision in the short- and medium-term future. NGOs will remain important partners in financing and implementing agricultural extension projects, both directly with farmers and through government entities.

68. Additionally, the private sector will be encouraged to invest in providing agricultural extension services and training. However, it is recognized that the private sector may volunteer to contribute to the funding of public extension services and development of human resources only if such investments ultimately are profitable to them. The MAFF still may assist private companies in this matter as long as their investments benefit farmers and the country.

69. The MAFF and development partners will collaborate to develop, establish, and operate a stakeholder-driven trust fund managed by the MAFF to finance pluralistic extension services. Development partners and the private sector may contribute to the trust fund. A competitive grant system will be utilized for allocation of funds to public institutions (including MAFF technical departments and universities), CSOs, and the private sector. The trust fund will support local farmer organizations to identify, prioritize, and formulate their needs.

70. To ensure sustainability in financing of extension services, the MAFF and its line agencies and stakeholders will commercialize public sector extension provision starting with cost sharing and partial cost recovery. Gradually, programs will move to a full-cost recovery model in all areas, based on clients' ability to pay for the services.

6.2. Implementation Framework

71. Agricultural extension programs, projects, and activities must be prepared with specific goals, objectives, and activities as stipulated in this policy and the Matrix of Strategic Action Plan in Annex 1.

72. Implementation of this policy shall be coordinated by the Agricultural Extension Advisory Committee under the MAFF, which also will spearhead preparation of its implementation framework and funding of the strategies for implementing this policy.

73. This policy document shall be reviewed at least once in five years at the concurrence of key stakeholders. The review will be coordinated by the MAFF.

7. Monitoring, Evaluation, and Learning (MEL)

74. A common monitoring, evaluation, and learning system will be developed and implemented to systematically monitor and evaluate impacts of extension services at all levels throughout the country.

75. The MAFF will monitor diverse aspects of extension services provision to ensure that acceptable standard agricultural technologies and quality materials are provided by all service providers, including input suppliers, NGOs, and the private sector. It will implement a system of accountability that includes incentives to motivate workers to provide quality services, and sanctions for any activities that are non-compliant with the agricultural laws and regulations or that break the contract. Incentives may include issuing certification of the qualifications for extension services providers and assigning specific accountability measures at the national and subnational levels.

76. Monitoring of agricultural extension services will be carried out by local authorities, the PDA, the DAE, and other line agencies of the MAFF. The DAE and other responsible line agencies of the MAFF will conduct periodic customer satisfaction surveys, focus group discussions, and listening sessions with local stakeholders at randomly selected districts. Evaluation of national agricultural extension programs and services will be conducted by the MAFF and independent evaluators.

77. Monitoring, evaluation, and impact assessment also will occur in several ways. The DAO will collaborate with stakeholders through regular forums to assess the quality of services offered by extension services providers. On the basis of its findings, the DAO will prepare an annual accountability report to be submitted to the DAE and the PDA.

78. Although sanctions are incorporated in the system (as described above), incentives and motivation rather than sanctions and penalties will be emphasized and promoted to ensure timely and quality delivery of services. In cases of poor service or regulation violations, extension clients (individually and through their groups/cooperatives) will be able to make formal complaints to the DAO, which may forward the complaints to the PDA and DAE. The DAE, in consultation with professional staff members, will develop a system to enforce compliance with established standards and requirements.

8. Conclusion

79. The Agricultural Extension Policy is a guiding map for expanding effective agricultural extension services to improve the livelihoods and well-being of the Cambodian people through increased agricultural productivity, diversification, and commercialization;

sustainable natural resources management; and responsiveness to the context of integration and technological and market competition in the region and the world.

80. To implement this policy requires participation by all the stakeholders from government institutions, development partners, the private sector, NGOs, CBOs, lead farmers, and extension service providers -- collaborating, supporting and implementing to provide effective and efficient extension services to farmers and farming communities as well as providing services and techniques that meet clients' needs and are accessible and adaptable to farmers and farming communities.

81. The MAFF strongly believes that all the agencies under the MAFF and other related government institutions at the national and subnational levels, as well as development partners, private sector, NGOs, CBOs, and all the Cambodian farmers, will actively participate in the implementation of the Agricultural Extension Policy in Cambodia to promote the agricultural sector and supporting economic growth, ensuring equity and food security and promoting rural economic development.

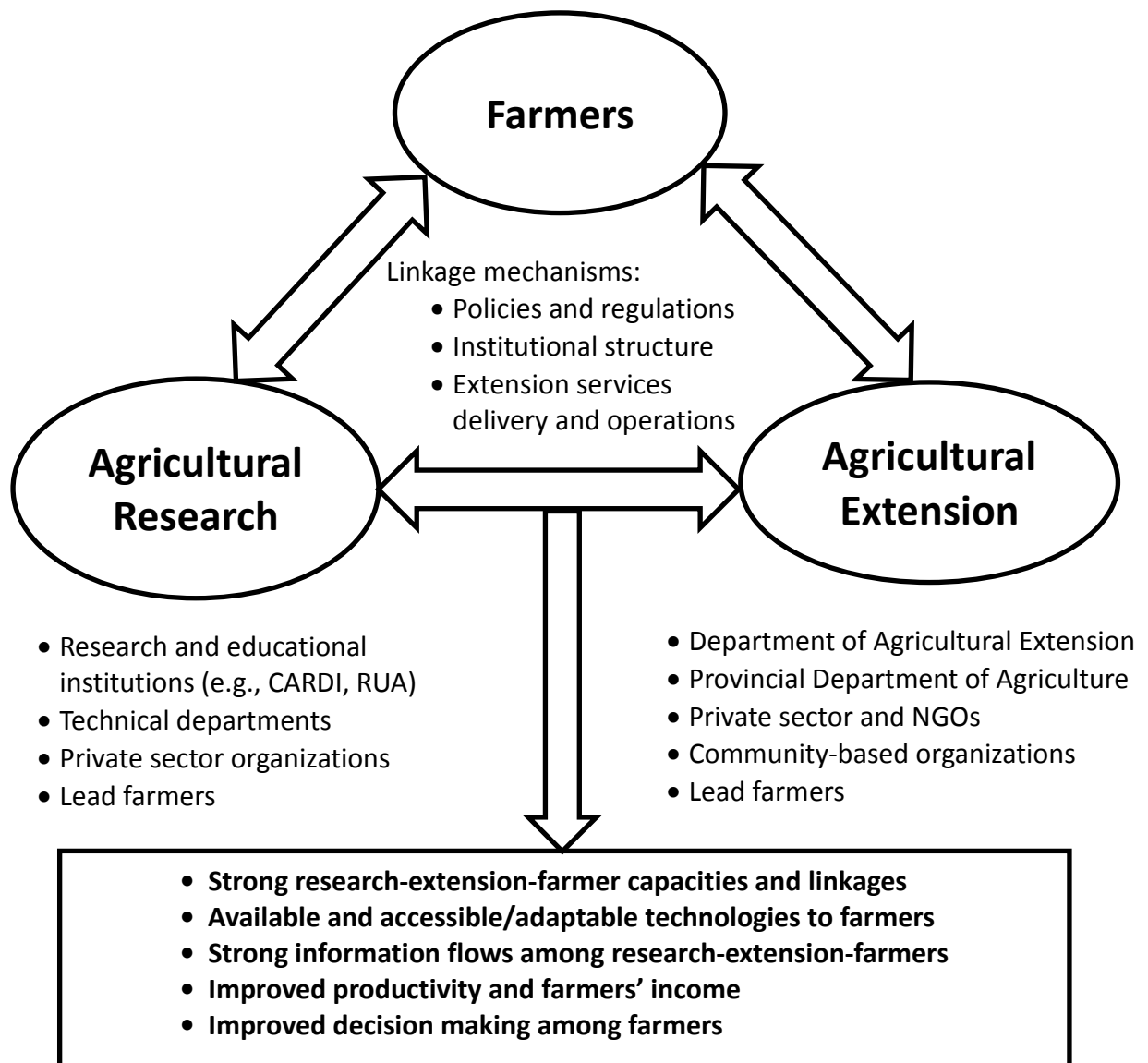
Annex 1. Matrix of Policy Guidelines.

Type of policy intervention	Issues to be addressed	Policy measures	Responsible agencies
1. Institutional organization and legal framework			
Coordination of various line agencies under the MAFF	Need for a body to approve technical contents of extension materials	Establish a National Agricultural Technical Committee	MAFF
	Need for extension services by line agencies under the MAFF to be coordinated	Establish an Agricultural Extension Advisory Committee	MAFF
Promotion of networking among extension actors	Need for strong collaboration and networking with DPs, CSOs, and PS at national and district levels	Create platform/annual forum for all partners to meet and share experiences at national and district levels	DAE, PDA, DAO
Quality assurance in extension services delivery	Need to develop and implement new guidelines and regulations for extension services providers	In consultations with stakeholders, draft guidelines and regulations, including setting the minimum level of acceptable professional qualifications for extension agents	DAE and DAO
		Establish integrated extension team at provincial level	DAE
		Establish district technical support team	DAE and PDA
		Establish commune agricultural Centers	MAFF (Dept. of Personnel and Human Resources) and PDA
2. Human resources development			
Addition of graduates having extension skills	Need to increase number of agricultural extension specialists	Develop an extension training diploma course for 6-9 months at RUA	Agricultural education and training institutions
	Need to increase number of agricultural extension advisors	Develop a 3- to 6-month extension skills course to complement a 2-year diploma in agriculture course	Agricultural education and training institutions
	Need to increase number of commune extension workers (CEWs)	Develop a 2- to 4-month extension training course	DAE, PDA, and others
	Need to increase number of village extension workers (VEWs)	Develop a 2- to 4-week training program on extension methods and technical skills	DAE, PDA, and others
In-service capacity building for extension staff	Need to provide on-going support to improve capacity of extension staff members at all levels	Use research and training centers/stations, and schools and universities under the MAFF to provide on-going training to extension workers	DAE and other line agencies of the MAFF
		Offer training-of-trainers and refresher training courses about extension core competencies	DAE and other line agencies of the MAFF
		Facilitate and coordinate provision of training by partners and of financial support for local and international studies from short to long term	DAE and other line agencies of the MAFF

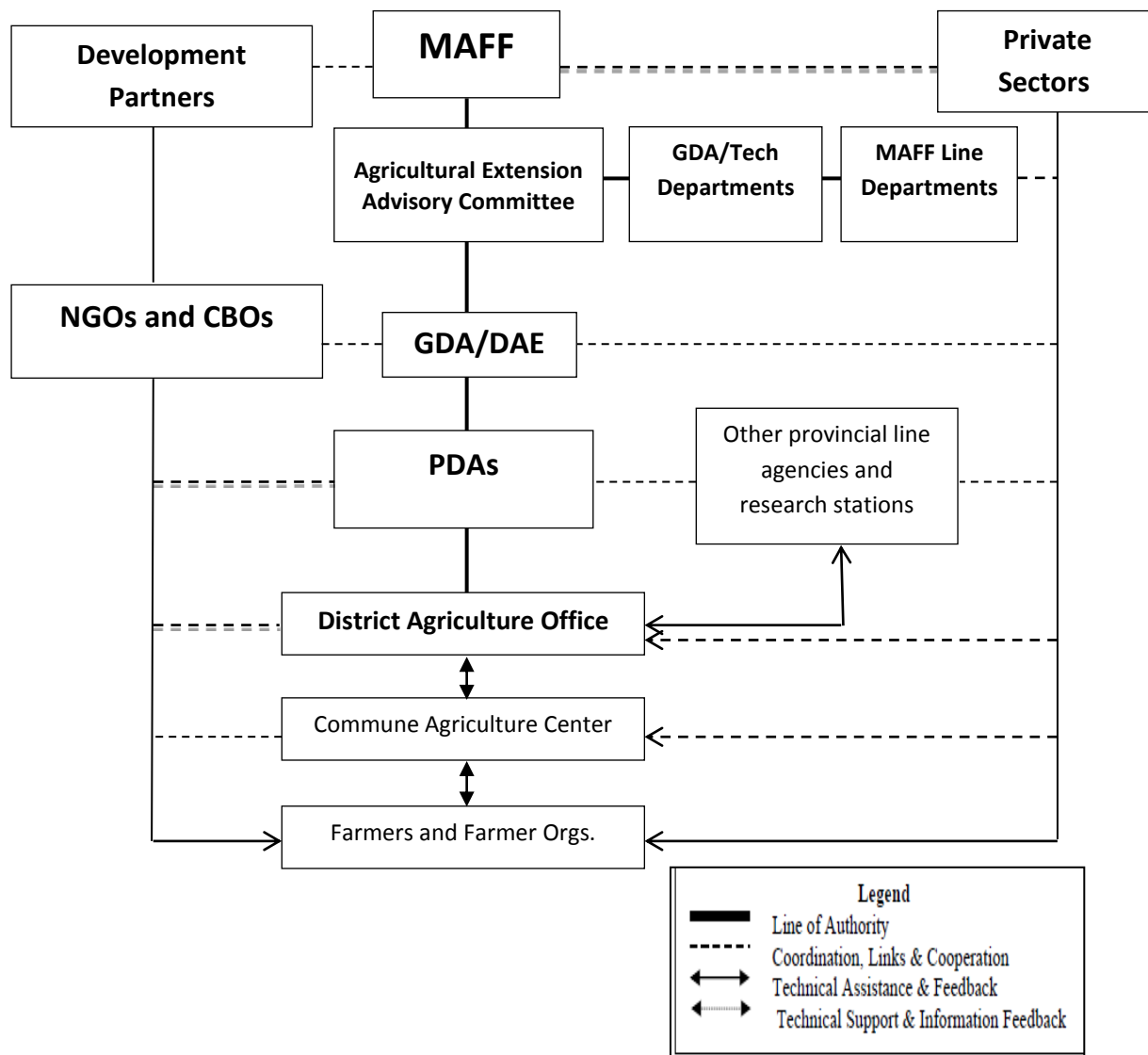
Type of policy intervention	Issues to be addressed	Policy measures	Responsible agencies
3. Technology development			
Improvement of agricultural technology development	Need to increase funding for agricultural research and development	Develop agricultural research priorities and sustainable mechanisms to increase funding levels for technology development	National Agricultural Technical Committee
	Need to strengthen linkages between education, research, and extension	The National Agricultural Technical Committee (NATC) will coordinate research activities by CARDI, GDA, RUA, Kampong Cham, and Prek Leap national schools of agriculture and other agencies	National Agricultural Technical Committee
		Establish functional linkages among research–extension–education and farmer organizations; organize annual forum for agricultural research stakeholders	Subcommittee on Technology
4. Extension materials development			
Improvement of the quality of extension materials	Need to develop extension materials that meet the changing needs of farmers	Based on research findings on quality and market demand, prepare extension materials and services that are easily accessible by farmers	DAE, other line agencies of the MAFF, PDA
		Undertake periodic reviews of training curricula to respond to the changing needs of the clients and regional/global trends	DAE, other line agencies of the MAFF, PDA
	Need to expand extension materials to also cover various aspects of production and marketing	Prepare extension materials on cropping calendar, production techniques, product appearance, support services, client preferences, market trends, product quality and safety, and price	DAE, other line agencies of the MAFF, PDA
5. Extension services delivery			
Expansion of the delivery of extension services to farmers and farming communities	Need to adequately serve <i>all</i> farmers	Prepare guidelines on the means, methods, instruments, and clear information system for extension services delivery	DAE, other line agencies of the MAFF, PDA
Improvement of the effectiveness of extension service delivery	Need to deliver extension services through both conventional methods and innovative use of information and communication technologies (ICTs) and mass media	Establish extension information center based on ICTs, and mass media at the national and subnational levels	DAE, other line agencies of the MAFF, PDA
		Develop capacity of extension workers and specialists through the use of ICTs in extension work	
6. Monitoring and evaluation			
Development and implementation of a monitoring, evaluation, and learning system	Need for a common monitoring, evaluation, and learning system to systematically monitor and evaluate impacts of extension services at all levels throughout the country	Establish and implement a monitoring, evaluation, and learning system on the effectiveness of agricultural extension services	DAE in cooperation with PDA, other line agencies of the MAFF, and other actors

Type of policy Intervention	Issues to be addressed	Policy measures	Responsible Agencies
		Conduct periodic customer satisfaction surveys, focus group discussions, and listening sessions with local stakeholders at randomly selected districts	DAE, PDA, and DAO
		Conduct regular forums and report the impact and quality of agricultural extension services carried out by all providers	DAE, PDA, and DAO
		Establish and implement an accountability system to penalize, motivate, and incentivize extension services providers	DAE in cooperation with PDA, other line agencies of the MAFF, and other actors

Annex 2. Concept and Linkages of Research, Extension, and Farmers



Annex 3. Institutional Arrangements and Agricultural Extension System



Annex 4. Conceptual Framework of Agricultural Extension Policy

