

Agriculture in the Cordillera – Development Strategies[†]

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The harsh environment of the Cordillera Region and the diverse agricultural constraints troubling the Cordillera farmers have prevailed in spite of the natural wealth and tremendous potentials of the Region. Recognizing therefore these constraints necessitates development strategies that are acceptable and appropriate to the capacities and needs of the people. Such programs should be geared towards increasing the capacities of the people to sustain, expand, improve, and diversify their mode of utilizing and exploiting their resources and socio-economic growth.

At present, a number of private and government institutions/agencies have launched diverse R & D programs for the Cordillera. Moreover, these agencies have pooled their resources together and embarked on inter-agency collaborative ventures. Such ventures include technology generation, verification, and packaging; the establishment of demonstration farms; the conduct of training programs; and other outreach services. As a whole, development in the Cordillera should not mean the transformation of the Region into a wasteland of environmental degradation and socio-economic helplessness but the full realization of the potentials of the people of Cordillera for self-reliance and socio-economic prosperity.

Key words: agricultural strategies, Cordillera, socio-economic prosperity.

The Cordillera Region is located in a vast mass of mountain ranges located in the central portion of Northern Luzon. It lies between the narrow Ilocos Region Coastal Plains and the Cagayan Valley. Located in this land mass are the Provinces of Benguet, Mt. Province, Ifugao, Kalinga-Apayao, and Abra.

The whole Cordillera area comprises 1/6 of the total land area of the Island of Luzon and is so ruggedly mountainous that it towers to heights as high as 9,000 feet above sea level. Despite this physical structure however, the region is endowed with rich natural resources like vast forests, metal and non-metal resources, and geo-thermal and hydro-energy. Population in this area reached a total of 854,680 in 1981, the densest population of all the highlands in the country, a vast majority of which depend on agriculture as a primary source of livelihood.

It is ironical to note however, that in spite of the natural wealth of the area and its potential for development, the people are generally economically under-developed when compared with the general socio-economic level attained by the majority of the Filipino people.

AGRICULTURAL CONSTRAINTS IN THE CORDILLERA

The harsh physical environment of the Cordillera

Region like steep slopes and rugged terrain pose serious problems to agriculture. Coupled with this is the prevailing traditional farm techniques being practiced by the farmers, unaffordable and lack of farm inputs, lack of technological know-how and lack of appropriate facilities and infrastructure. Other factors like the non-existence of marketing services, and farmer's organizations also contribute to the unending underdevelopment in the area.

Land conflict is also another problem confronting the people of the region, brought about by the continuous restrictions being levied on the use of forests. Large areas have also been declared as forest reserves, watershed reserves, national parks and military reserves, thus, the people are declared squatters in their own lands. Accelerated forest depletion generating soil erosion and other related environmental hazards are now glaringly apparent and threatening to the overall welfare of the present and future human settlements.

Furthermore, based on a recent survey conducted in Benguet and Mt. Province by Sycip, Gorres, and Velayo (SGV), farmers and wholesalers had the following problems (1) low and unstable price of farm produce, (2) inadequate infrastructure and (3) high cost of production inputs. On the other hand, problems related to credit include short repayment periods, high interest rates and long loan processing time.

In cognizance of these identified agricultural constraints, the necessity therefore to liberate the Cordillera populace from this bondage is a prime responsibility.

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AGRICULTURAL DEVELOPMENT IN THE CORDILLERA

Agricultural development in the Cordillera is generally geared towards increasing the capacities of the people of sustain, expand, improve and diversify their mode of utilizing and exploiting their resources to ensure long term viability, increased self-reliance and socio-economic growth.

Towards this end, the following goals and strategies are being pursued: (1) *Increased production* through the cultivation of high yielding varieties, introduction of appropriate technologies and farm implements, and the utilization of locally available resources to minimize dependence on imported chemicals and fertilizers. Integrated farming, agro-forestry and other methods of upland cultivation should increasingly be encouraged to diversify and increase production, help reduce farm expenditures and ease labor inputs. (2) *Training and proper exposure* of the farmers particularly the barangay farmer leaders to the wide spectrum of technological innovations is also a must to enable the proper application of new techniques as well as ensure a "multiplier effect" in the adoption of these technologies. (3) *Strengthening farmer's organization* into viable and functional cooperatives and associations is also a vital factor to look into. Assistance in the establishment of such organizations and in solving institutional problems like credit, land tenure, source of planting materials, etc. shall be extended. (4) *Participatory approach* shall be initiated in all development activities so as to ensure the full participation and cooperation of the people. (5) *Marketing assistance* providing a channel for farmers to market their produce is also a necessary aspect to look into. The stabilization of vegetable prices through government intervention, and the scheduling of vegetable production through a farmer's cooperative in order to prevent oversupply and low prices shall increasingly be recognized. (6) The need for informal *credit* sources and/or the restructuring of the present credit requirements of financial institutions should be worked on. (7) *Reinforced research capabilities* of institutions/agencies engaged in R & D in the Cordillera will be a continuing process to ensure effectiveness and efficiency of these institutions/agencies in the implementation of R & D activities. (8) *Promotion of agri-industries* that may include the processing of agricultural products as well as the manufacture of finished products from locally available materials shall be pursued. (9) *Accelerating land titling*, completion of land transfer, and ensuring the stability of land tenure are also essential areas of concern.

CURRENT R & D PROGRAMS/PROJECT IN THE CORDILLERA

In cognizance of the prevailing problems besetting the Cordillera and its people, various research and development programs/projects have been launched and implemented by a number of private and government institutions/agencies in an effort to promote socio-economic

growth and structural transformation in the Cordillera. Some of these institutions/agencies include the Mountain State Agricultural College (MSAC), the Highland Agricultural Research Center (HARC), the Ministry of Agriculture, the Bureau of Plant Industry (BPI), the Bureau of Animal Industry (BAI), the Cordillera Studies Center (CSC), the Forest Research Institute (FORI), the Northern Philippines Rootcrops Research and Training Center (NPRCRTC), the Philippine Textile Research Institute (PTRI), the National Council on Integrated Area Development, the Philippine Council for Agriculture and Resources Research and Development (PCARRD), the Ford Foundation, the National Economic and Development Authority (NEDA) Region I, the National Irrigation Administration (NIA) and the Farm Systems Development Corporation (FSDC).

Aside from the implementation of their respective functions and commodity research assignments, the above mentioned agencies have also pooled their resources to embark on inter-agency collaborative ventures. Such ventures include the following programs/projects:

Technology Packaging for Countryside Development (TECHNOPACK) Project. The TECHNOPACK Project is a nationwide activity which involves the packaging of location-situation specific technologies on specified priority commodities into provincial technoguides. The project initially covered Benguet but has now expanded to Mt. Province.

To date, outputs of the project are three technoguides on sweet pea, potato and cattle fattening. Other technoguides in preparation are on agroforestry, rose, strawberry, crucifers, fruits, and backyard poultry and piggery. Demonstration farms have been established also to test the technology recommendations contained in the technoguides as well as to satisfy the "show me type" attitude of the farmers. These demonstration farms are currently located at the MSAC experimental area and in farmers fields in Benguet.

Highland Agricultural Development Project (HADP). The HADP is spearheaded by MA and is one of the major projects scheduled for full implementation in 1985. Funded by the Asian Development Bank (ADB), the project is aimed to increase agricultural productivity in the highlands and at the same time, promote highland eco-system conservation for sustained productivity. The project, which embraces a number of components such as research, extension, credit, infrastructure, irrigation development and others is now on its final feasibility preparation following an earlier fact finding and identification mission conducted by consultants from the Food and Agricultural Organization (FAO) Investment Center.

Highland and Rural Development Program (HRDP). The HRDP is an effort to intensify highland countryside development through effective technology generation, verification, and utilization schemes. It has four major components namely: (1) research and extension; (2) technology packaging; (3) establishment of demonstration farms, and (4) training and manpower development. An

added component is the establishment of outreach stations or Village Research and Demonstration Laboratories (VRDL) in each of the four Project areas (Benguet, Mt. Province, Kalinga-Apayao and Ifugao).

To date, a survey on the agriculture research and development needs of the Benguet farmers has been undertaken and the project site for the first VRDL was identified. A number of research and extension projects are now being undertaken.

Land Tenure and Farmer's Training Program (LTFIP). The program has two major components as follows: (a) land tenure program and (b) farmers training program.

The primary purpose of the Land Tenure Program is to facilitate the titling of land holdings of the native inhabitants of the Cordillera. On the other hand, the Training Program component involves the training of farmer leaders, who, after such training course will act as para-technicians in their respective areas. The training program revolves on nine commodities as follows: multiple cropping, agro-forestry, nutrition, sericulture and moriculture, post harvest and food processing, mushroom, swine raising, cooperative development, and nursery management.

To ensure the adoption of technology, demonstration farms will also be set-up to enable the farmer leaders to try out new techniques acquired from the training course. At present a training on agro-forestry is on-going. This is in collaboration with the Regional Training Center for Rural Development, the Igorot Community Assistance Program (ICAP), and HARC.

Cordillera Integrated Area Development Project (CORIADP). This project is a complementary project of HADP designed to institutionalize capabilities for planning and implementing development programs in the Cordillera through an integrated area development approach. A project proposal is currently being finalized by NACIAD in cooperation with MA, HARC and the provincial governments of Benguet, Mt. Province, Kalinga-Apayao and Ifugao.

Cordillera Coffee Research and Development Program. This program involves the following activities: (a) survey of existing indigenous technologies, (b) evaluation screening of these technologies, (c) preparation of a handbook on coffee production, (d) coffee production technology development, generation and verification, (e) training of technicians and farmers, and (f) establishment of cooperatives.

Recently, HARC was able to procure Arabica coffee seeds from Filipro Inc. and Kenya for varietal trials. Varieties found suitable to highland conditions will be propagated for distribution to qualified coffee growers.

Save our Rice Terraces Program (STP). The program is a long range development program involving action research and action plan components primarily to increase farm production and income of the rice terraces farmers as well as improve the nutritional condition and status of the rice terraces population.

Specifically, Phase I of the program involves the conduct of a continuous action research program focusing on the development of farming systems technologies for the rice terraces. The second phase is directed towards the implementation of a full scale action program involving production and expansion of area coverage, adapting the integrated management systems approach to development. The program covers selected rice terraces of some municipalities of Ifugao, Kalinga-Apayao, Mt. Province and Benguet.

An added component of the program is the establishment of an on-farm Development Center showcasing continuous experimentations on technology verification for rice and other rice-based crops, as well as farming systems production technologies for the rice terraces areas.

Added to these, MSAC is currently engaged in a special project on Agro-forestry that showcases the viability of growing fruits and plantation crops under pine trees. This is an effort to develop technologies to reforest bald mountains and logged over areas as well as to cushion the adverse effects of the now troubled Benguet Vegetable Industry. Another is the MSAC pomology project which exhibits the suitability of semi-temperate fruits crops in the highlands. Other crops also being intensively and extensively researched on are rootcrops, vegetable crops, ornamentals, farming systems and other identified priority commodities.

Agricultural skill training programs and other outreach services has also been extended and special clinics on crop protection, soils, and livestock have been established to service the highland farmers. Moreover, the presence of special units and affiliate institutions like the Regional Training Center for Rural Development (RTC-RD), Highland Crops Research Center, Inland Fisheries Station of the Bureau of Fisheries and Aquatic Resources (BFAR), and the Agricultural and Meteorological Station (AGMET) at MSAC have contributed much in the implementation of the different research, extension and other related activities in the Cordillera.

CONCLUSION

Through the years, the people of the Cordillera endured the harsh life in the mountains. Life was difficult, but needs were simple and the people were industrious.

Indeed, they labored and adapted themselves to the natural environment. Where the land was steep, the people carved rice and vegetable terraces and skyponds as well as redirected mountain springs and waterways into irrigation canals leading down to their fields. Obviously, the land, the forests and the rivers provided much for the needs of the people. However, the changing needs of the times and the increasing external pressures pose on us challenges — to bring about change and development. Change and development that would not mean the transformation of the Cordillera into a wasteland of environmental degradation and socio-economic helplessness, but change and development that will lead to the full realization of the

potentials of the Cordillera for self-reliance and socio-economic prosperity. This necessitates the need for development strategies that are acceptable and appropriate to the capacities and needs of the people as well as the introduction of new ways and processes by which income may be produced from existing and accessible resources.

With rich natural resources, practical traditions of resource conservation and management and pragmatic people who have survived the laborious life in the mountains for centuries through skill, industry and tenacity, these developmental thrusts are attainable. However, these goals should be worked-on not only to benefit a selected few, but for the interests and welfare of a majority of the Filipino people very specially, the inhabitants of the Cordillera Region.

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