

Range Lands-Its Importance to Philippine Economy

by

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INTRODUCTION

The Philippines is increasing its population by a million a year. This phenomenon will adversely affect the unstable economy of the island. We are producing less food than we are increasing our population. Unemployment, hunger, poverty, skyrocketing prices of commodities, crimes and other evils continue to plague the country and an immediate solution must be sought lest we find it too late to solve them. There are many approaches to tackle these problems and one basic solution would be to increase food production. To attain this goal, we have to utilize our natural resources wisely. And the range lands of the Philippines invite a challenge for proper conservation to help bolster its economy.

If properly developed, utilized, and managed, the 5.5 million hectares of range lands in the country will certainly be more than enough to support and raise animals that will supply us with milk, meat, and other dairy products and materials that can be derived from them. The hundred of million of pesos that we are spending every year for the importation of these products can then be used instead for the development of the livestock industry.

SOIL COVER OF THE PHILIPPINES

According to the annual report of the Bureau of Forestry for the fiscal year 1962-63, on land classification, the soil cover of the Philippines are: cultivated lands, 11,210,050 (37.70%); commercial forest, 8,257,556 (27.76%); non-commercial forest, 4,102,021

(13.80%); openland, 3,475,299 (11.68%); brushland, 2,033,917 (6.83%); and swamps and marshland, 662,447 (2.23%).

PHYSICAL CONDITION OF RANGE LANDS

As mentioned in the preceding section, openlands has an area of 3,475,299 hectares and brushlands, 2,033,917 or the total present and potential range lands is 5,509,216 (18.51%) hectares of the total land area of the Philippines. These range lands are distributed in the provinces of Bukidnon, Cotabato, Nueva Ecija, Nueva Vizcaya, Isabela, Ilocos, Negros, Masbate, Samar, Tarlac, Palawan, Mindoro etc. The elevations of these range lands varies from province to province and its topography is from rolling to steep. Most of these lands are situated in an area where the climate is really favorable for forage growth and for animal health.

The dominant forage that can be found on these range lands is cogon except on some other improved pasture where a variety of palatable grass and legumes were already introduced. The cogon grass is palatable when young to the animals but become less preferred when mature. Brush and trees are also found on these lands and a number of these plants are also palatable to some animals.

To the Philippine ranges, livestock as sheep, goats, or cattle can be grazed. Beef is in great demand in the market and so cattle can be raised more profitably than other livestock. Cattle generally prefer grassy range but will take considerable amount of

browse, especially when the grass is dry. They do best on flat or rolling ranges, with easy access to water and are not well suited to ranges with high altitude. Sheeps and goats can also be raised as they are browser. They prefer ranges with abundant forbs. So that they can be grazed on these brushlands. With smaller body size, they can climb higher ranges than cattle.

Forage grows abundantly throughout the year, except in some provinces in Central Luzon where there is a pronounced dry season when grasses became dormant or ceases to grow. One hectare of natural pasture can sustain one cattle.

MANAGEMENT PRACTICES

Although the ranges are mostly found on areas where there is favorable conditions for forage growth and animal health, the livestock industry in the country is still considered inadequate as manifested by the importations of millions of pesos worth of meat, milk, and other dairy products. In 1960, we have imported ₱62 million worth of meat, and ₱115.5 million of dairy products. According to the NEC estimate, a person should at least eat 33 kilos of meat per year. And we are producing less than what actually is needed. The inadequacy of our livestock industry may be attributed to the lack of incentives on the part of the government and the poor management of our range lands. If we are to succeed in the livestock industry, the basic and foremost consideration among other things, should be to secure maximum sustained supply of natural forage crop for the grazing animal without serious damage to other resources or use of the land. And this involves (1) an inventory of existing and potential forage resources and (2) adjusting and maintaining grazing use in balance with these resources.

Inventory of Range Lands:

The Bureau of Forestry have already classified some of the public lands and delineated such lands into different uses. How-

ever, no attempt has been made yet to go into the inventory of our range lands; to determine its suitability for grazing purposes; because of lack of personnel who have the technical know-how to carry on the job. Such inventory usually requires the collection of basic information as (1) the principal kinds and communities of range vegetation, their characteristics, and responses to grazing; (2) delineation of the different kinds of rangelands, into range sites; (3) determination of range condition on each kind of range land; and (4) determination of stocking rate to suit the correct degree of grazing. After all these facts are gathered then we can make workable plans for the proper utilization of our range lands.

Control and maintenance of grazing use:

The first step would be to control and maintain proper grazing use. This involves four basic principles: (1) the kind of animals grazed should be suited to the range; (2) they should graze at the proper season and for a proper length of time; and (3) their numbers should not be large enough that they eat more than the forage production capacity of the land, and (4) they should be properly distributed over the range.

Kinds of Animals:

The kind of animals or livestock to be raised would depend on such factors as (a) local demand for grazing a certain kind of livestock; (b) the kind of animals for which the range is most suitable, and (c) benefits to the range by changing to another kind of livestock. In the country, demands for meat and dairy products are high so that cattle may be the preference. However, the topographic condition of the ranges may not only be suitable to cattle, that other livestock like sheep and goat, hogs or even horses can also be raised to graze the area.

Season of use:

Unlike temperate countries where there is a definite season for grazing during the year, the Philippines as a tropical country

doesn't have any except in some parts where there is a pronounced dry and wet season. It is better if animals are not held too long in any one place and if they are moved on or before the range become dormant during the dry season. Range plants, particularly perennials, grasses and shrubs, should not be grazed before they have made considerable growth or at least have produced seeds. Too early grazing prevent plants from reaching the point where seed is formed. Rotation grazing would be a sound practice. A ranch can be divided into blocks and the blocks will grazed once at a time. This will give the forage of the other block enough time to rejuvenate until it will be grazed again.

Number of animals:

The number of animals which is grazed on any range largely determines how closely the forage is utilized. If plants are grazed too early, they will gradually die out. The more resistant, undesirable forage plants will recover first filling the range with less desirable species. Finally, the hungry animals will graze the less desirable species and a barren range may result. As the plant cover is destroyed, the unprotected soil is washed away and the usefulness of the range is completely lost. The number of animals must always be balanced with the sustaining capacity of the rangeland.

Distribution:

Animals should be evenly distributed over the range in order to avoid overgrazing in some areas and light or no use in others.

Improvements:

The necessity for providing enough food for domestic consumers and in so far as possible, for foreign people, is self evident. Increased food consumption necessitates increased food production. Range improvements is considered a vital undertaking to increase the production of the land. The present car-

rying capacity of one head of cattle per hectare is considered very poor and subsequently would not guaranty to produce more goods. If a pasture is improved, it can carry as much as seven to ten head per hectare. And with the 5.5 million hectares of rangeland, the country can sufficiency supply the local market with meat and dairy products.

Some of the worthwhile range improvements, in addition to proper range management are those which compliment good management. They are: (a) water development in areas of unused or little used feed where water is a principal limiting factor, or where such development will result in better range use in the surrounding area; (b) fencing to make possible rotation grazing, or to eliminate trespass; (c) range pitting and contour furrowing to conserve and utilize all water in contact with the soil; (d) access roads and trails to make otherwise unused range forage available and usable; and (e) control of poisonous and undesirable plants.

Range improvement measures are sometimes costly but the benefits compensate the cost. In some areas where there is a pronounced dry and wet season, water is a great problem especially during the dry season. Streams dry and forage wilts. Digging of wells is the usual measure taken by the local farmers. But this endeavor is costly and solve the problem sometimes only partially. The most practical approach is to protect and preserve the watershed. Watersheds should not be overgrazed. If an area is located in a nearby forest, the trees in that forest should not be cut indiscriminately.

Another measure would be to improve the forage. Forage improvement can be accomplished by reseeding; planting of more nutritious and palatable plants, and the application of fertilizer. Many range have been so depleted by overgrazing that they need reseeding to bring them back into production. The common method used in the coun-

try now, in case of ranch whose dominant forage is cogon, is by burning the area. This practice is both destructive and hazardous. It will cause damage to the soil and most often results in the encroachment by undesirable species of plants. The best thing to do is to plant the area with another species that can outgrow the cogon grass. Legume-grass combination is an excellent forage.

ECONOMIC IMPORTANCE

In the United States and some other countries, the production of livestock is a big business by any standard. Pasture or rangelands is the source of the cheapest feed that can be grown. Livestock feed in general is 55 percent forage and 45 percent concentrates. Dairy cattle consumes 74 percent forage and 26 percent concentrates; beef cattle, 82 percent forage and 18 percent concentrates; horse and mules, 68 percent forage and 32 percent concentrates; hogs, 3 percent forage and 96 percent concentrates; poultry, 5 percent forage and 95 percent concentrates; and sheeps and goats, 94 percent forage and 6 percent concentrates. Livestock convert these forage and concentrates into human food with the greatest efficiency.

Aside from being the cheap source of livestock feed, our range lands plays an important role in the conservation of soil and water.

CONCLUSION

As population increases the need for more lands is obvious. It is the duty of the government to accelerate the classification of lands, so that it can be put into productive use. Misuse of these lands can then be avoided. Range lands should not be alienated and disposed as agricultural lands once classified as such, so as not to deprive the country of its material for the production of more meat, milk, and other dairy products.

It is through information and education that we can open the minds of our people to the importance of our rangeland as a source of food. There is a great need for men who can carry out these job in the country. The reason why we are lagging behind in the livestock production is the lack of men who have the technical knowledge and know-how in this special field of endeavor. Surely, many are yet to be done for the perpetuation and use of our rangeland.

LITERATURE CITED

1. CASSADY, J. T. and W. O. Sheperd. Grazing on forested lands. USDA (1948) GRASS.
2. DONAHUE, R. L., E. F. EVANS and L. I. JONES. 1956. The range and pasture book. Prentia-Hall, Inc., Englewood Cliffs, N. J. 406 p.
3. F. A. O. 1957. Handbook on range management. Catholic Press Beirut. 173 p.
4. JUNI, R. A. The influence of forest on pasture lands. Forestry Leaves, Vol. XII, No. 3.
5. LUSH, R. S. 1952. Pasture production and management. The Blakiston Company, Inc., N. Y. Toronto. 193 p.
6. SABADO, R. A. Natural pasture in relation to soil conservation. Forestry Leaves, Vol. XII, No. 3.
7. SAVACE, D. A. and D. F. COSTELLO. Range management. U.S.D.A. (1948) GRASS.
8. STODDART, L. A. and A. D. SMITH. 1955. Range management, Second edition, McGraw-Hill Book Co. Inc., N. Y. 433 p.
9. WHITE, W. T., W. R. FRANSEN AND C. V. JENSEN. Planning range conservation. U.S.D.A. (1948) GRASS.
10. ————— 1963. Annual Report of the Bureau of Forestry.