The Place Of Highways In The Philippine Recovery Efforts

By F. C. TURNER, Division Engineer, United States Public Roads Administration

The attention of all of us and, I venture to say, the attention of practically every thinking adult in the Philippines has been concerned for the past three years with some phase of the effort of recovery. It has been the most important problem, and in fact the only problem, in the Philippines. This recovery effort has covered many fields. First, it was necessary for the individual to gather his family together since, in many cases, families became widely scattered during the occupation and liberation. Next, it became important that a home and the necessary appurtenances thereto be reestablished. Business enterprises required immediate attention; farms had to be placed in cultivation: communications systems had to be rebuilt; schools, churches, hospitals, and other phases of community life had to be restored; and finally transportation became an item of acute interest to all of the individuals who were engaged in these many different aspects of re-

I mention transportation last not because it was the least important but because all of the other items were of more immediate personal concern to the individual. I think it is safe to say that in every case where an attempt was made to restore the normal way of life in the Philippines the individual found his own recovery efforts hampered by lack of transportation. As an individual there was little he could do about this general problem, so he devoted his efforts to the things that he could correct and hoped that somebody would do something about transportation. Let us explore and see how it was that in all fields of recovery the need for transportation was felt so acutely.

Transportation, although it is not in itself the objective, is the potent tool for human accomplishments. Economists have predicated their major conclusions as to current human affairs and trends of future progress upon two considerations: Production and Consumption. They have placed too little emphasis upon the effects of transportation on the existing status or the actual attainment of the potentials inherent within these two elements. Humanists profer other considerations, such as capacity for self-government, proficiency in the arts and sciences, and opportunity to develop mental discipline and to advance the economic conduct of the individual. These men of goodwill recognize the importance of environment in shaping the life of the individual but they focus their ideas too closely. Back of the immediate surroundings, one of the major elements in the creation and perpetuation of these conditions, good or bad, is transportation.

If economists and humanists fail to evaluate completely the ruling influence of transportation, there must be an even greater lack of understanding on the part of the general public. Such criticisms reflect adversely upon the colleges or universities because of their failure to include in their curricula the courses which will give an academic training for public leadership in the transportation field. They reflect adversely upon all of us who are connected



with the many phases of transportation because of toolimited research of the character and scope needed to uncover the knowledge upon which to found sound laws and administrative policies.

It is high time that we recognize and accept the influence exercised upon human affairs by the kinds, the availability, and the characteristics of transportation. These factors have been potent in the past and will be increasingly more determinative of the future trends which affect the daily life of the individual and the currents of national and international relations. Certainly transportation—and the word should include terminal facilities and storage—must be accorded equal weight with production, consumption, and social relations in their combined determination of human economy and social trends. This has been true in all countries and in all times. There is no more striking example of the effects of transportation upon national development and on the way of life of the individual than that of the United States.

Beginning with the earliest form of transportation—water—which in the lifteenth century opened the western hemisphere to settlement and exploitation, the great population centers in the United States were fixed. Today there are only nine cities in the United States of more than 200,000 population that are not served by navigable water. These ports became the natural origin and termini of railroad lines to serve inland areas.

The development of rail transportation radially from established ports brought this service to large inland areas. Communities dependent upon the horse and ox for local transportation developed along the rail lines at distances fixed primarily by the limitations of animal travel. At important convergings of railroad routes, communities gradually grew into cities. They became the gateways from which supplies were distributed and to which the products of the land flowed for processing or for shipment beyond. More recently air transportation has extended to the larger cities of the world the relation which theretofore had been restricted to cities of the single country. Major lines of air transportation are dependent for sustaining income upon the already established metropolitan areas and the intercommunication between these areas.

All three types of transportation—rail, water, and air—are predicated upon regimentation of the individual. No matter how commonplace or how luxurious his personal accommodations, the passenger becomes one of a group subject to the discipline of a fixed route. Once he adjusts his personal convenience to the schedule, he enjoys fast, comfortable, and safe travel, but there is no deviation possible for the personal convenience or desires of the individual.

Highway transportation, with which I am primarily concerned, is in many ways a startling modification in the transportation field. Highway transportation is the natural development from the horse and ox cart travel which originally connected by land the world's ports and harbors. Its growth has been phenomenal. In 1945 there was celebrated at Detroit the 50th anniversary of the automotive industry, but the early years of its life gave little indication of the stature this type of transportation was destined to acquire nor of the effects it would have upon the way of life of the individual. In the United States, between 1921 and 1941, the number of motor vehicles in use increased threefold and the average annual use of the vehicles in miles traveled doubled. Thus in the two decades prior to World War II motor vehicle mileage increased 600% and, as a result of this, man for the first time was able to travel long distances speedily, safely, and economically without dependence on a fixed schedule.

The effect upon the national life has been as startling

as the effect upon the individual. This convenience of transportation has resulted in cities becoming decentralized. People no longer desired to live in crowded, smoky cities when they could move into the country and still require no greater period of time to reach their offices than they did while living in the city and depending upon a slow mode of transportation. Factories are no longer required to huddle in cities along the rivers or railway lines. By the use of motor transportation for the assembly of raw materials and the distribution of finished products factories can be located in the country or in small villages. In many cases the factories are only a part of a giant assembly line organization. A single factory may make only one small part of a very large and complicated machine. It may require hundreds of factories, for example, to provide all the parts for a large airplane. These parts are moved from one plant to another by motor transportation until the final assembly is effected. Fruits and vegetables which once rotted in the fields because of the slowness of land transportation and the lack of a local market, are now harvested and hauled almost overnight 1200 to 1500 miles to the larger cities. Instead of having dozens of oneand two-room schools scattered over the countryside within reach of children who had to travel by foot or by horse and buggy, our school system is being consolidated. Large schools accommodating hundreds of pupils are being built at suitable locations and the pupils are transported to and from the schools by busses. Thus the rural child who was once denied a first-class education is given the same opportunity as the child living in the city. Traveling libraries are routed over the highways to bring free books to the residents of remote areas. Mail is delivered over the highways to rural residents at a faster rate than ever before. An incalculable number of lives have been saved by reasons of the fact that medical attention can be brought over the highways to patients who once could be given only local assistance. I could go on giving examples of the major changes in our economic and social structures which have been engendered by highway transportation, but I do not think that further examples are necessary.

Highway transportation cannot be divorced from water, rail, and air transportation. These forms of transportation are not competitors—they supplement each other. Certain types of products are fundamentally best suited to rail transportation. This is particularly true of bulk products such as coal, iron, sand and gravel, and other heavy products which are required at given localities in large volumes. The role of highway transportation is primarily that of a distributor. Not many products can be gathered or distributed at exactly the right points by railroads. The highway serves as a feeder line for railroad, steamship, and air transportation. It is the common denominator of the transportation field.

I have given you a picture of what transportation in general and highway transportation in particular have meant to the United States. I have no reason to believe that transportation will mean any less to the Philippines, although the over-all pattern will be somewhat different.

In the Philippines, separated as the islands are by bodies of water, water transportation will always be of prime importance; conversely, a limited amount of expansion can be expected or justified for the railroads. It will be necessary therefore for the highways to take over some of the functions which are normally attributed to the railroads in countries of greater land area. An interesting sidelight here is the fact that due to geographical conditions air transportation will usurp a substantial portion of passenger travel which in the United States would be carried by the motor vehicle.

Each of these forms of transportation in the Philippines is faced with problems peculiar to each field, but these problems are not by any means of interest only to the particular field. The interrelationship of all forms of transportation in the Philippines is unmistakable. I saw a simple example of it recently in Mindoro. Lumber which once was loaded on an inter-island vessel and carried directly to Manila is now being transported by truck using the inter-island shipping only as a ferry to carry the loaded vehicle from Calapan to Batangas. This combination of transportation means that the truck is loaded once at its origin and unloaded once at its destination rather than being loaded and unloaded at each point of transhipment.

Certainly no greater contribution can be made to the overall recovery of the Philippines than the reestablishment at the earliest possible date of fast, safe, and economical transportation: water, rail, air and highway. Some fields of transportation in the Philippines have made faster strides towards recovery, and even expansion of their facilities, than have others. This is due at least in part to the varying degrees in which available equipment and materials have affected this recovery program. Speaking for the highway field. I have been amazed at the extent to which motor transportation has recovered. In spite of the difficulties in obtaining equipment there are more trucks and buses on the highways today than there were before the war. Possibly due to the improved economic condi-

tions, more people are being carried by motor vehicles than ever before. We hope that before long we will have the highway system restored to something approaching its prewar state.

In the next few years many problems will arise in connection with water, rail, air, and highway transportation in which more than one field of transportation will be interested. Certainly questions of expansion of facilities will arise which should be solved with an eye towards the general welfare. Unless the possibilities are fully explored, one branch of transportation may expand unduly to the economic detriment of other branches of transportation and with an ultimate money loss to the expanding field of transportation. I suggest that serious consideration be given to the formation of an overall body charged with the responsibility of studying the transportation needs of the Philippines and with making recommendations for the ultimate growth and policies to be followed in each of the four fields of transportation. In the field of highway transportation we have such a policy-forming study under way known as the "Highway Planning Survey". I think it would be good practice to set up similar studies in the other fields of transportation and to consolidate the findings of all four studies into one group of recommendations recognizing the limitations and the ultimate possibilities of each field of transportation.

AMADEO M. MANALO

CIVIL ENGINEER - CONTRACTOR

₾

Resident Engineer for Baguio of GEORGE EDWARD KOSTER, INC.

Military Cut Off Baguio City Tel. 4141

MAURO SORIANO

918 MORAYTA, MANILA

* * * *

GEN. MERCHANT

* * * *

ENGINEER - CONTRACTOR