

Remarks by Francis C. Turner, Director of Public Roads, Federal Highway Administration, U. S. Department of Transportation, at a Regional Workshop on Highways, San Jose, Costa Rica, October 1, 1966.

I am glad to participate with the Government of Costa Rica, the International Road Federation, and the Costa Rican Road Association in inaugurating this Regional Workshop on Highways. The Bureau of Public Roads has long maintained a deep interest in the highway programs of this Region, and I know that many of you are close friends of the Public Roads engineers who have served in your countries over the last 30 years. I bring you greetings from all of the officials and personnel of our Bureau.

This is truly a Regional Workshop, with eight or more nations represented here. We can all benefit from meetings such as this and the forums they provide for exchanging information on the lessons we have learned in developing our respective highway systems.

All nations are in fact developing nations though in age they range from the newly-formed through those with centuries of continuity. The stage of development of highways in a sense parallels the age and development of the nation, though the interrelationship between transportation and a nation's economy depends upon the stage of development of both.

Historically, development of highway transportation falls readily into three stages; the first of which emphasizes the pioneering need for access or the opening up of undeveloped areas in which stage the objective is to enable the traveler or vehicle merely to "get there." The lowest possible cost is the ruling criterion and the roadbuilder must stretch his resources to the utmost.

The second stage comes when the highway facility may be adjusted more towards providing acceptable standards of transport service, more convenience to the public, and the emphasis is directed to increased levels of efficiency.

The third stage is one in which society has acquired a considerable affluence and begins to exert controls and restrictions upon the highways, thus making greater allowance for the environmental land use and for community and social values.

The United States generally has progressed well into the third stage even though in some areas of our country we are still in stage one. In reaching the third stage we have learned certain lessons the hard way, and I hope to share a few of these thought-provoking lessons with you in this brief statement.

First, though, it may be appropriate to make a few general comments about the place of highways in the total scheme of things, both in my own country and in Central America. As most of you are aware, highway building in the United States is a joint venture conducted under a partnership arrangement between the Federal government and the States. The arrangement has been in effect since 1916 and it has served the country well. It has continued to exist as a partnership even though in the case of our National System of Interstate and Defense Highways, the Federal government pays 90 percent of the cost, with the States paying the other 10 percent.

Highways are national assets that promote economic growth and raise the standard of living of any country or region. The late Thomas H. MacDonald, who headed the Bureau of Public Roads for 34 years, stated the situation in the United States very well when he said:

"We were not a wealthy nation when we began improving our highways... but the roads themselves helped us create a new wealth, in business and industry and land values...So it was not our wealth that made our highways possible. Rather, it was our highways that made our wealth possible."

I believe that the economic and other benefits of good transportation have not been sufficiently stressed in any country in the world. We hear much talk about highway expenditures but very little about highway investments. We pay a stiff price for inadequate roads and streets; not only in deaths, injuries and damages, in nerve strain and inconvenience, and in time and gasoline wasted, but in the cost of everything we buy. Our studies show that highway-user benefits of the Interstate System will total some \$11 billion during the first year after the System is completed. These benefits result from lower operating, time, accident, and strain of driving costs. The safety features of the System are expected to save at least 8,000 lives and countless injuries during the first year of full operation.

We do not yet have sufficient experience with the Inter-American Highway to catalogue all of its benefits. However, we do know that travel time has been cut as much as 50 percent, with all the economic savings that such a reduction makes possible. We know that the highway is giving new freedom and new speed and safety to the movement of people and goods. Deliveries are faster and trucking operations more productive. Farm products move more quickly and with less deterioration in quality.

Statistics show that highway transport is the most important mode of travel in the Central American Region and indications are that it will

become even more important in the future. Each mode of transportation has certain advantages in the movement of various classes of passengers and commodities. However in the Central American Transportation Study, conducted in 1964-65, the consultants made these observations:

"In the past, and to a certain extent in the present, the other modes have been serving areas that could best be served by highways. However, because quantities of bulk commodities are limited and distances are not great, a high percentage of the movements in these areas will shift to highways as the network expands. There will always be a place for the other modes, but their importance in relation to highways will diminish in time."

It is obvious that there will be a considerable expansion of the Central American highway network in the years ahead. And it is in view of this prospect that I now cite the lessons which we have learned in the United States and which I believe may be of interest and value to you.

The first lesson is that transportation is not truly an end in itself but is a means to other ends. The ends it serves, or the goals it reaches, are many and varied and few are possible of monetary expression. Planners indeed must use their tools with discretion. No economic analysis can take adequate account of intangible values, whether it be in an undeveloped area of Central America or in the heart of New York City. If 50 years ago the decision to build the present highway system of the United States had been dependent on our ability to justify it on an economic basis, we surely would never have started.

The second lesson is that highway planning must consider and include other forms of transportation. No can transportation planning as a whole

be carried on isolated from broader planning, whether it encompasses the locality, the nation, or the continent. This lesson, I believe, is of transcendent importance to developing countries and regions. Certainly long range plans for highway systems to serve the whole of each country should be adopted, but full attention must be paid to the adequacy of connections with neighboring countries.

Likewise, the highway network should be developed as part of an overall master plan of land use so that it will realize its full potential and accomplish as many purposes as possible with a minimum expenditure of public funds. The network must move people to the various places they want to go but it also must serve as an efficient conveyor belt for the products of the farms, forests, mines and factories -- those existing and those not yet in operation.

As in every other region of the world, the urban areas in this region are expanding rapidly, with new housing, office buildings and manufacturing plants reaching completion in both the central cities and the suburbs. These, of course, have noticeable effects on traffic patterns and at the same time make it more difficult and expensive to relieve traffic congestion. In view of this problem, which is universal, comprehensive plans including a complete study of present and future land use and its effect on the movement of persons and goods, should be developed in all urban areas.

A third lesson is that planning of highways can only be an aid to judgment and decision. Its purpose cannot be to criticize or endorse what has gone before. It starts where we are and helps chart the best course to reach the desired goals ahead. While we must do our best to apply the

tools we have in forecasting and in economic analysis, we must use them humbly, with great discretion and with respect to their limitations.

I know that your deliberations over the next three days will cover all aspects of highway planning, programming, construction, and maintenance and that the exchange of ideas will aid each of you in doing a better job when you return to your assignments. Not only will you have gained technical information of value for your work, but more important, you will have made contacts, associations, and new friends that will be invaluable to your career and to the integration of highway development throughout our hemisphere.

I wish you every success in this Regional Workshop.