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**STRATEGIC DIRECTION SESSION ST5
*Access to mobility: a basic social service***

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Cuba-ST5 National Report

Republic of **CUBA**

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SUMMARY

Around 42 000 km of rural roads have been built in Cuba since 1959, more than four times the rural road network existing in that year (10 100 km). This road infrastructure is conducted to guarantee the economic and social development of the rural areas, to enhance the life quality of the population and to diminish the differences amongst countryside and city, and the rural population exodus toward cities.

The Public Consultation is not used in Cuba as a method to define what road infrastructure projects should be built in the country, though these ones should be backed by the economic development plans, mainly those industrial, agricultural and touristic ones. To elaborate these plans state-owned entities and population requests, needs determined by integral studies and foresights of possible contingencies, among other things, are taken into account.

The technology transfer is one of the ways to keep, update and develop the technical level attained in Cuba in this sector, which has been at government, organization, group of people and individual level. For that reason its utility, the transfer policy, needs, success possibility, the subject to transfer and its adaptability to the conditions required by the country are considered among its general conditions.

The National Road Centre (CNV), appertaining to the Ministry of Transport, elaborated in 2001 a procedure or methodological guide for realizing economic (cost-benefit) studies of the road infrastructures, which presently is used at national level. This has allowed to attain through the most used economic indexes, the most efficient alternative from the point of view of the individual project, as well as to prepare lists for priorities with regard to the execution of the new roads and reconstruction of those existing ones, whereby the budgets can be used in a more rational and efficient manner.

1.-Introduction

From 1959 - year of the Cuban Revolution triumph - to 1990 - starting of a severe economic crisis because of the disappearance of the socialism in East European countries - 42 000 km of rural roads have been built in Cuba, more than four times the rural road network existing in that year (10 100 km).

From that built road length, an important part (9 354 km) was executed in mountain areas and Cienaga de Zapata (22 430 km²) with the purpose to eliminate the secular isolation of the population living in those areas (728 000 inhabitants), guaranteeing its access to mobility.

That road infrastructure, included in the program known as 'Plan Turquino - Manatí', has been conducted to guarantee the economic and social development of the most isolated rural areas in the struggle of the country against poverty, to enhance the life quality of the population and to diminish the differences amongst countryside and city and the rural population exodus toward cities, facilitating to this population the access to education, health, communications, electricity, drinking water, etc.

This Plan has propitiated, among other things:

- The increasing of the production of coffee, wood, honey, mining (nickel, copper, etc.) and an incipient tourism development, in the economic order
- The present existence of 2331 primary and secondary schools, 1091 medical cabinets, 1840 physicians and a children death-rate of 7.6 per 1000 alive-born, as well as more than 70 video rooms for the population recreation, amongst the indexes obtained in the social development.
- The public transport service ("Mountain transport") moving around 25 millions of passengers by year in spite of difficulties concerning the bad state and scarcity of transport means, bad state of the roads and the fuel restrictions, is other contribution to access to mobility

2.- Public Consultation

Public consultation is not used in Cuba as a method to define what Road Infrastructure Projects should be built in the country.

Here the Road Infrastructure Projects should be backed by the economic development plans of the country, which fundamentally are:

- touristic
- agricultural
- industrial

To elaborate the social and economic plans state-owned entities and population requests, needs determined by integral studies and foresights of possible contingencies - among other things, are taken into account.

For each Road Infrastructure Project - after micro location proposals be analysed, in the stage we call conceptual Design, consultation with state-owned entities and organizations is made, as much those ones involved in the works as other ones affected by their construction, in order to know the requirements that should comply the Project in function of their interests and needs.

The whole of this information is analysed, made compatible and conciliated with the objective to attain a work offering the service waited for all.

Subsequently, the permissions and licences (Environmental Licence, vulnerability analysis, work execution permissions, etc.) are requested during the stage prior to the construction, which is when the designs are analysed and their execution approved or rejected.

3.- Technology Transfer

In Cuba the technology transfer has been at government, organization, group of people and individual level, always considering amongst its general conditions: the utility, the transfer policy, the needs, the success possibility, the subject to transfer and its adaptability to the conditions required by the country.

By means of a research carried out in the road sector in 2001 technology transfer and the subject to transfer could be established, and also the procedures for such transfers were identified.

The ways that presently are used in Cuba to carry out the technology transfer and to dispose of the knowledge needed in the country are as follows:

- Membership of international institutions, amongst them:
 - ◆ PIARC member, and with representatives in most of the its Technical Committees
 - ◆ Founder member of the World Interchange Network (WIN)
 - ◆ Member of the Iberoamerican Program for the International Transport Research Documentation (ITRD)
- Correspondence and information interchange with development and research centres from other countries, mainly with the Technology Transfer Centres sponsored by PIARC

- Subscription to technical publications
- Management and/or attendance to courses, conferences and specialist meetings at national and international level
- Consultations to Data Bases and Banks in electronic format, as much off-line as on-line through Internet and CD-ROM
- Development of our Technical Information Centre, attaining to supply in the last years the following information services:

<u>Year</u>	<u>National</u>	<u>Foreign</u>
2000	521	33
2001	1037	327
2002 (June)	827	428

- Management of a Data Base Automated System, which presently has 60000 bibliographic records
- Starting of a project to organize and develop a Digital Information Centre. For the time being it has a Data Base with 8 000 full-text documents in electronic format and request, search, retrieval and answer services are being supplied in electronic format through e-mail, its geographic cover being world wide
- Edition and periodical publications of seven different electronic Newsletters on diverse themes
- Setting up and development of the national Road Information Network (RNIC). Presently it embraces the 14 provinces of the country, having each one an appointed representative
- Setting up and development of two Technology Transfer, appertaining to the Ministry of Construction and Ministry of Transport, respectively.

4.- Project Economic Evaluation.

Up to middle of 90's, entities of the Ministry of Transport (MITRANS) and the Ministry of construction (MICONS)- linked to the road investment and project activity, carried out economic isolated studies in those cases that the size of the investment required a special treatment.

Starting from that date, the Ministry of Economy and Planning (MEP) - organization in charge of the country investment control and planning, begins to demand - as indispensable requirement - to the investment entities linked to the road infrastructure finance, the presentation of economic studies (cost-benefit) where the economic income of the new roads to be constructed and the reconstruction of those existing ones be proved.

In order to make uniform the criteria and to increase the information quality the National Road Centre (CNV) appertaining to the Ministry of Transport - road ruler entity in the country, elaborated in the year 2001 a procedure or methodological guide for realizing economic (cost-benefit) studies.

That procedure was elaborated considering the best experience acquired by the country in the last years, and the forms and parameters used by other countries were adapted to the conditions of the country.

In addition to that, a complementary procedure to calculate capacities and service levels was elaborated, allowing more strengthen the methodology.

The procedure - after being submitted to a test, evaluation and analysis process, presently is used at national level by the National Road Centre.

The demand of the economic studies for part of the Ministry of Economy and planning and the setting up of the above mentioned procedure have allowed to attain - through the most used economic indexes (net updated value, cost-benefit relation, internal return rate, capital reimbursement period, etc.), the most efficient alternative from the point of view of the individual project, as well as to elaborate priority lists with regard to the execution of new roads and reconstruction of those existing ones, whereby the budgets can be used in a more rational and efficient manner.

In spite of the fact that with the road construction and enhancement several types of benefits can be attained, for the case of Cuba - that it doesn't dispose of means and adequate statistical means, only three types of benefits are examined, representing the reduction of:

1. vehicle operation costs
2. travel time
3. traffic accidents

When the economic conditions of the country be enhanced then studies will be executed allowing to adjust the former parameters, as well as to set up other benefits not presently considered in the procedure.