



# PIARC International Seminar

**The Best Practices for Earthworks  
and Rural Roads**

**Tunis, Tunisia, 14 - 16 November 2018  
Hotel Golden Tulip El Mechtel Tunis**

## **Road maintenance with microenterprises in Bolivia**

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**TC Chair D 4**

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The Best Practices for Earthworks and Rural Roads, Tunisia 14-16 nov. 2018

# THE PLURINATIONAL STATE OF BOLIVIA

## Data from Bolivia

Area:	1.098.581 km <sup>2</sup>
Population:	12 Million people
GDP	33.810 Million US Dollars
GDP per person	3.105 US Dollars

## The Territorial Division of the State

- Departamentos (9)
- Provincias (112)
- Municipios (339)
- Native Municipios

Fundamental Road Network:	16.054 km
Total Road Network:	80.000 km





The Fundamental Road Network reaches 16,054 km

There are five main corridors:

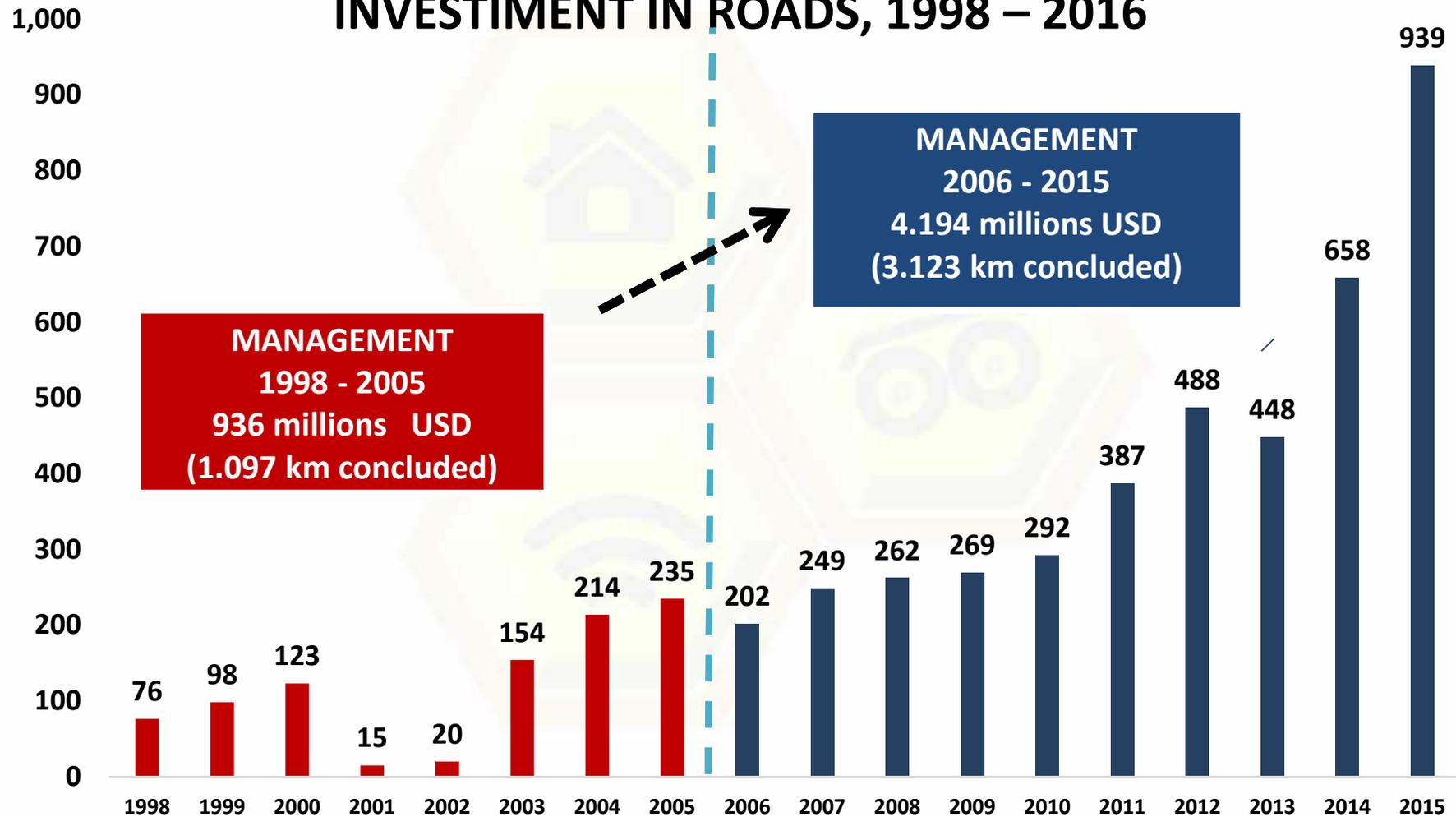
- East - West
- North - South
- West - North
- West – South
- Central - South.



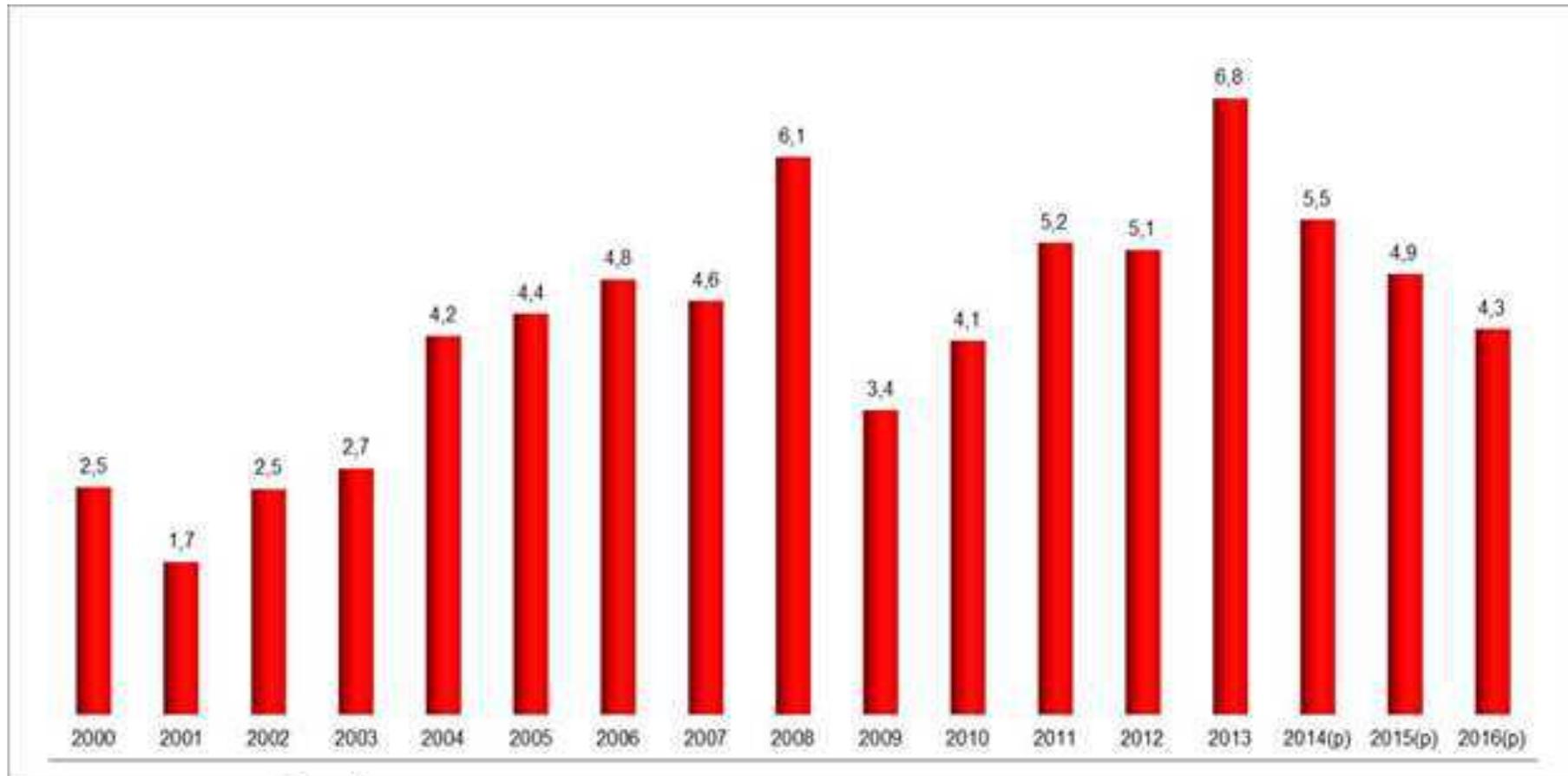


## BOLIVIA

### INVESTIMENT IN ROADS, 1998 – 2016



## ANNUAL GROWTH OF GDP (%) OF THE PLURINATIONAL STATE OF BOLIVIA



Fuente: Instituto Nacional de Estadística.  
(p): Preliminar.



# EXECUTED OR IMPLEMENTING PROJECTS

Doble Vía La Paz-Oruro



Doble Vía Montero - Yapacani

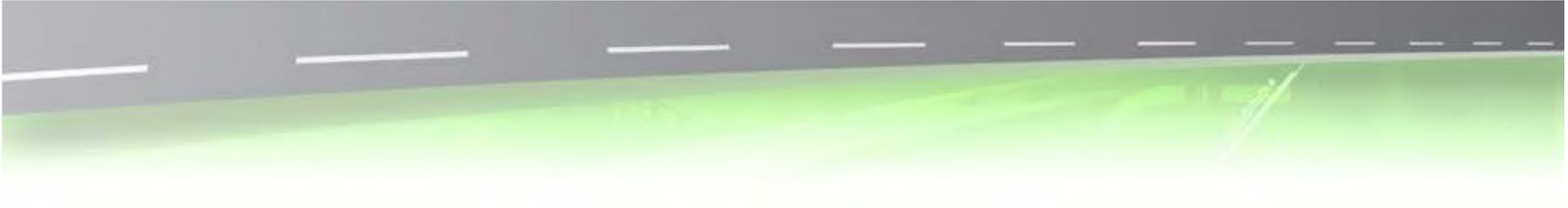


Puente Madre de Dios (Pando)



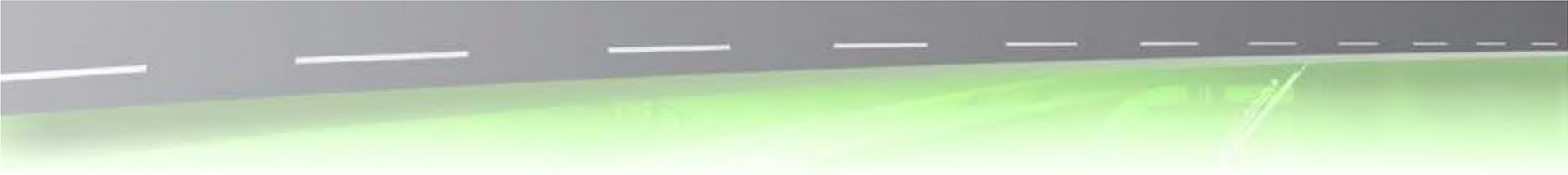
Doble Via El Sillar (Cochabamba)





# Road maintenance with microenterprises in Bolivia





## SUSTAINABLE MAINTENANCE OF ROADS WITH MICRO-ENTERPRISES

The Road Conservation Program with Microenterprises (PROVIAL) was created 17 years ago and serves 13,600 km of the Fundamental Road Network. Their activities are:

- ❖ **Conservation of the drainage system** (gutters, culverts, ditches, downspouts, canals, etc.).
- ❖ **Road maintenance** (patching, horizontal and vertical signaling, control of vegetation).
- ❖ There are also **Administrative activities** like (track monitoring, vehicle counting and accident registration).



# SUSTAINABLE MAINTENANCE OF ROADS WITH MICRO-ENTERPRISES

## PROGRAM OBJECTIVES

- Perform preventive maintenance on the roads.
- Create sustainable jobs
- Economic development in the rural area.
- Value the road heritage.
- Save resources to the State.



## GENERAL CONSIDERATIONS

- The associated micro-entrepreneurs are the owners and administrators of their own enterprise.
- The micro-entrepreneurs must educate themselves, organize their own machinery and work tools.
- Micro-entrepreneurs are partners working together for their well-being and for their families, while contributing to the achievement of national objectives within the framework of the National Development Plan.
- Having work sources close to their communities has resulted in families remaining in their area of origin.
- Different productive activities are developed and migration to large cities is avoided.



# NATURE OF THE MICRO-ENTERPRISES

## 1.- THE MICRO-ENTERPRISES AND SUSTAINABLE DEVELOPMENT

- Participation for the sustainability of resources
- Mitigation of environmental impacts
- Decrease in migration to the city
- Preservation of the uses and customs of the communities and fight against poverty.

## 2.- LEGAL NATURE

- The ABC subscribes with the Microenterprises an administrative contract for the provision of a certain service
- The microentrepreneurs constitute an Accidental Association, in which by common agreement, they are obliged to make contributions to apply them to the achievement of a common goal, and divide the benefits among themselves or bear the losses.

## 3.- ECONOMIC NATURE

- The ABC contracts the services of the microenterprise for the attention of the roads disbursing the respective payments
- This payment, understood as profit, is distributed to meet the needs of the microenterprise, (equipment and work tools) and equally each partner receives the part that corresponds to the satisfaction of their needs and that of their families.

## 4.- SOCIAL NATURE

- At the same time that the Bolivian Highway Administration fulfills the objective of maintaining and conserving the fundamental road network, work sources are created and poverty and marginalization are fought



## CONSTITUTION OF MICRO-ENTERPRISES

The contract signed by the microentrepreneurs is an association contract



This means that inside the microenterprises the associates take interest in certain or transitory operations



The partners have common contributions

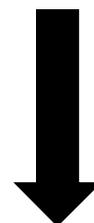


The operations are executed by two or even all the associates as appropriate in the contract

Road Conservation  
Microenterprises

like

Accidental  
Associations



### Features:

- The requirements for the constitution are established in its regulations
- The microenterprise is a commercial company
- The economic and work contribution of all partners is equal
- They operate through one representative
- There is solidarity in responsibility



## LEGAL FRAMEWORK

- The Political Constitution of the Plurinational State of Bolivia. First Part Title II Chapter V Section III Articles 46,54 et seq.
- Supreme Decree No. 29106 of April 25, 2007, which consolidates the PROVIAL Program.
- Commercial Code Articles 126, 365 to 371, where the Nature of Accidental Associations is defined.
- Directory Resolution No. 06/2007 of May 05, 2007, approves the Regulations for the Contracting of Road Maintenance Microenterprises and is part of the Internal Regulations of the ABC.



## LEGAL FRAMEWORK

**These are the necessary Documents for the constitution of the Accidental Association called "Microenterprise"**

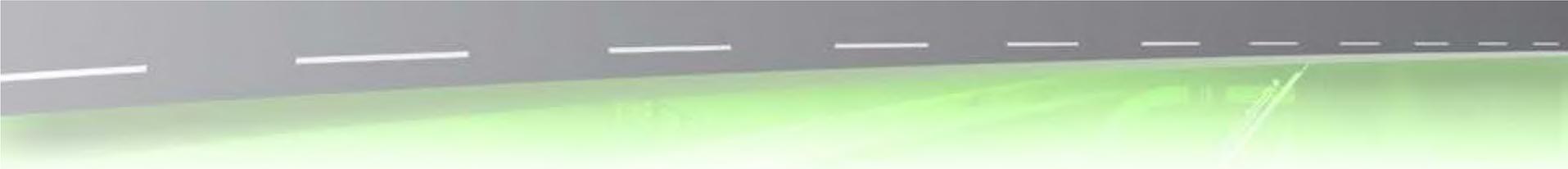
1. Constitution or Testimony Contract
2. Internal Regulations or Notaries
3. Designation of Representative or Power
4. Business Card (Proving the lawfulness of your business operations)
5. NIT (Credits tax payment)
6. Account in financial institution (For transparency in the handling to deposit payments and carry out their commercial movements)
7. SIGMA Registry (Electronic platform of the Government of Bolivia to make financial deposits)
8. Document of Conditions for Contracting (which establishes the conditions of the services to be rendered and, consequently, the commitments assumed when contracting with the State)



## MICRO-ENTERPRISES AND DECENTRALIZATION

- ❖ Understanding decentralization as a transfer of responsibilities for planning, administration and obtaining and allocation of resources from the central government to the regions, the Government of the Plurinational State of Bolivia has initiated a gradual process at the Macro and Micro level until reaching the Promulgation of the Autonomy Law N ° 031.
- ❖ This empowerment of local actors has had an impact on all social, economic and environmental spheres, and in the same way at the level of Public Administration in the entities that are adopting a new organizational logic.





## MICRO-ENTERPRISES AND DECENTRALIZATION

- ❖ In our case, the empowerment of the **Bolivian Road Administration in the Regions and with local actors, through the deconcentration of functions and decentralization**, which is of recent date, (management 2010) has had a positive influence on the relationship with micro-enterprises, which is much more direct, agile and timely.
- ❖ Their doubts, concerns, as well as the quality and effectiveness of the work they carry out, can be **evaluated at the regional level**, which allows to exercise a better control and provide a higher quality care to road users, as well as to the members of the micro companies.



## POTENTIAL OF LOCAL AUTHORITIES



Analyzing the spectrum of the reality of Santa Cruz, the local authorities are internalizing what is the work with microenterprises and the entity carries out the task of constant diffusion of the PROVIAL Program activities at the National and Regional levels, at the same time the participation of micro-enterprises in various activities at the local and national levels is encouraged.

Similarly, invitations have been received from other public entities interested in replicating the work program with micro-enterprises in their own institutions.



## RESULTS OBTAINED

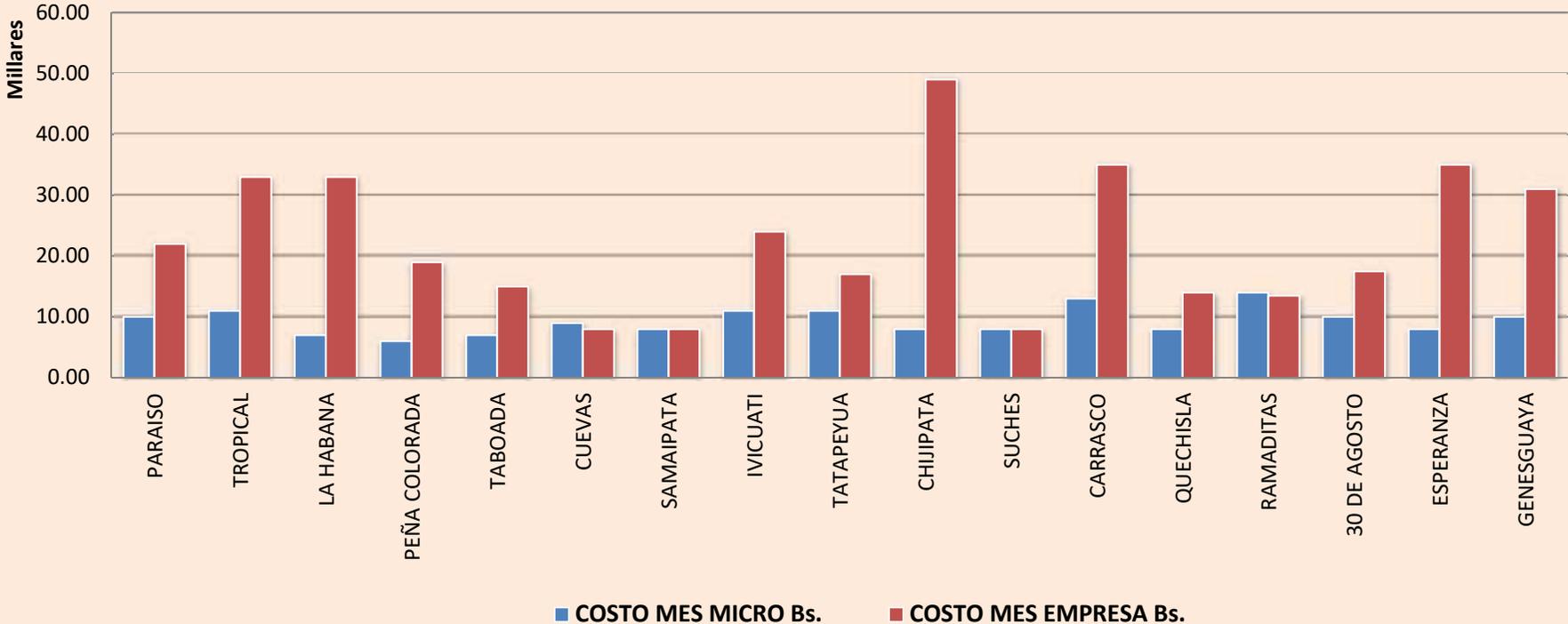
RESULTS	EXPRESSED IN
NUMBER OF MICROENTERPRISES IN THE COUNTRY	475 Microenterprises
TOTAL PARTNERS	2,990 PARTNERS
km OF THE ROAD ATTENDED IN THE FUNDAMENTAL VITAL NETWORK	13.602,96 km
DECREASE OF COSTS FOR ROAD MAINTENANCE.	FROM \$ US. 3,000 TO \$ US 2,100 PER YEAR
HIGHER USEFUL LIFE OF THE ROAD	20% HIGHER
IMMEDIATE EMERGENCY CARE	ACCORDING TO THE MAGNITUDE AND FREQUENCY OF THE EMERGENCY PRESENTED IN EACH DEPARTMENT PER YEAR

There are other non-quantifiable results referring to the benefits that the work of micro-enterprises has brought to each Bolivian household that translates into access to health insurance for the micro-entrepreneur and his family, having a secure income that allows him to cover his basic needs and the feeling that their work contributes to the development of the country.



# COMPARATIVE ANALYSIS

COMPARATIVE GRAPH – COMPANY vs MICROENTERPRISE IN SIMILAR WORK



## COMMUNITY INTEGRAL DEVELOPMENT

- 217 productive projects or investment ventures were implemented by microenterprises to improve their income from their families and learn to "live good".

PROJECT	QUANTITY	ESTIMATED INVESTMENT ( Bs.)
LECHERIAS	15	371.175
CRIADEROS DE PECES	16	152.712
GRANJAS DE CHANCHOS	11	132.209
GRANJAS DE POLLOS	14	197.960
VIVEROS	28	148.470
AGRICULTURA	53	1.140.709
PANADERIAS	11	93.324
MOTORIZADOS	25	233.840
VIVIENDAS	34	204.323
<b>TOTAL</b>	<b>217</b>	<b>2.674.722</b>

- The Modification of the D.S. 29106 allow the direct contracting of microenterprises, destined above all, to enable the operation of Specialized Microenterprises, that work in Pavements, Road Safety, Bridges, Drainage Works, Preventive Works and the Environment.



# COMMUNITY INTEGRAL DEVELOPMENT



## GUIDELINES FOR THE FUTURE

- **Systematize the work developed by the PROVIAL Program**, a task that to date is in execution.
- The **systematization** will allow to elaborate didactic material, educative **to be spread**, so that these can strengthen the technical - administrative capacities of the microenterprises, making use of a simple language





## GUIDELINES FOR THE FUTURE

- Training microentrepreneurs in technical areas at a higher level, signing agreements with educational entities.
- Manage the necessary resources that guarantee a sufficient budget for the operation of both, micro-enterprises and specialized micro-enterprises.





## GUIDELINES FOR THE FUTURE

- With the incorporation of Specialized Microenterprises, which based on their effort and initiative have achieved higher than expected objectives, it is estimated that the costs of the State for road maintenance will be reduced in a significant proportion.
- With this measures, the poverty rates within the Bolivian State are expected to decline in the medium and long term.



## SPECIALIZED MICROENTERPRISES

- Home building
- Environment
- Bumping and road safety
- Bridges and drainage works
- Maintenance with equipment



## PREVENTIVE AND EMERGENCY WORK - TRAINING



# EMERGENCY CARE



# ATTENTION OF EMERGENCIES AND ROAD CONSERVATION



## MICROENTERPRISES IN SOUTH AFRICA



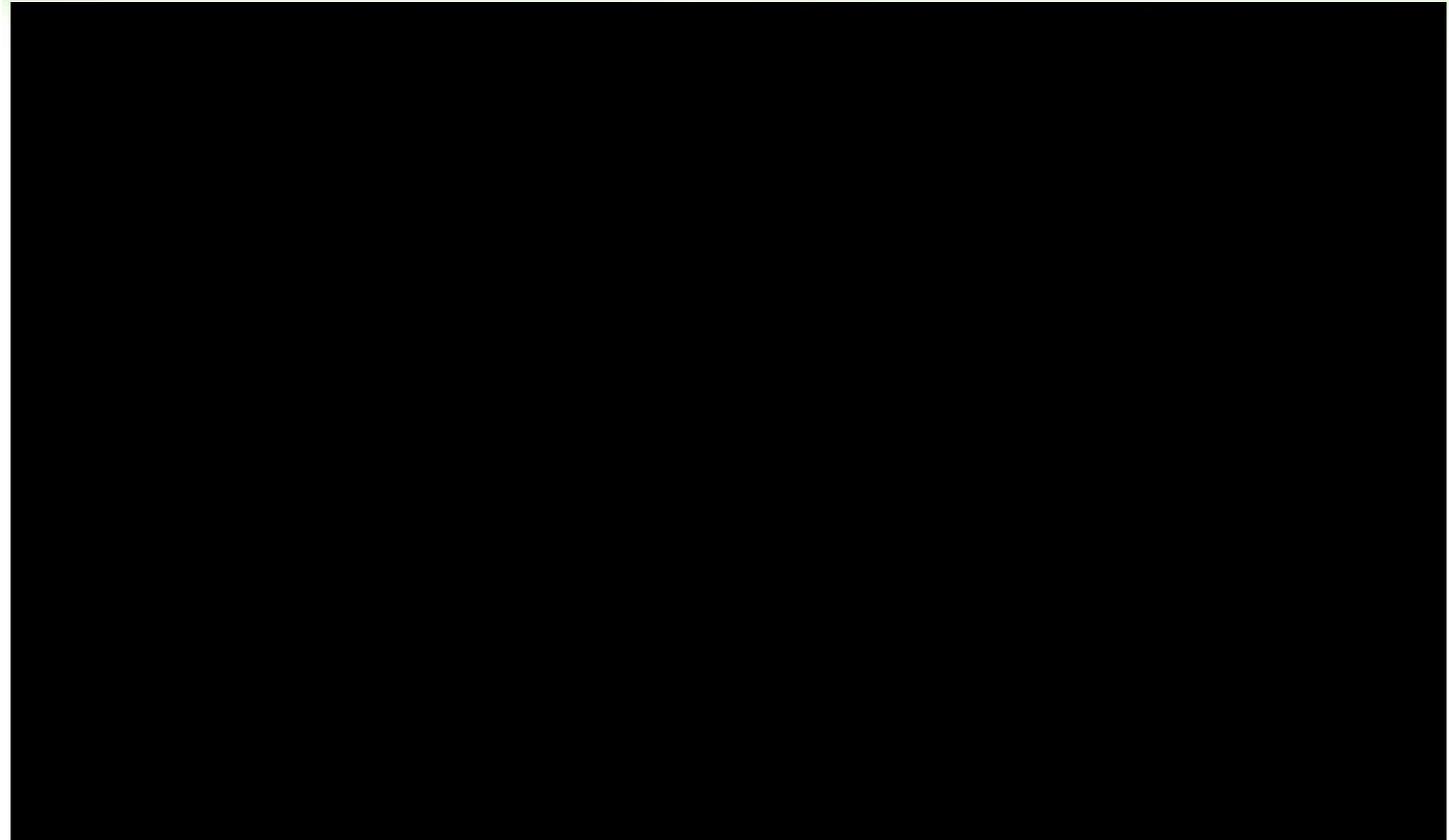
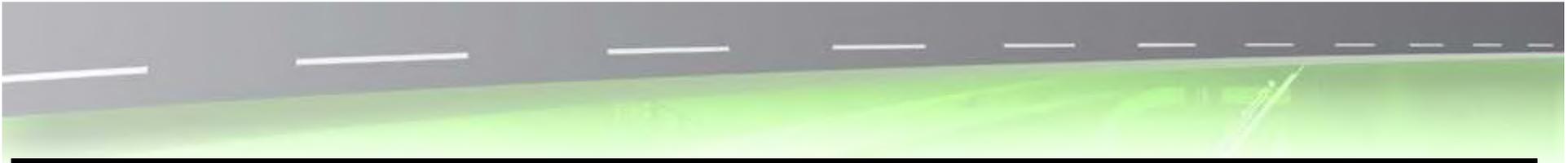
## QUALITY MANAGEMENT

- **The PROVIAL Integral Information System (SIIN-PROVIAL)** Management of Contracts and Payment Certificates, Management of Fortnightly Programming of Road Conservation Activities, and administration of accidents and vehicular counting have been implemented.
- It has organized 90% of the PROVIAL documentation file (contracts and evaluations)



<http://www.abc.gov.bo/Sistema-SIIN-PROVIAL>





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**THANKS FOR YOUR ATTENTION**

**STRENGTHENING TO CONTINUE GROWING ! FOR LIVING WELL**

