

**2013 TIRE WORKSHOP:  
STRENGTHENING THE REGIONAL  
CAPACITY FOR A SUSTAINABLE TIRE  
MANAGEMENT ALONG THE TEXAS-  
MEXICO BORDER**

San Antonio, TX

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**Border Region Scrap Tire  
Management**

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# CONTENT

- INTRODUCTION TO PUBLIC POLICY
- SCRAP TIRE ISSUE
- BASIC ELEMENTS FOR SCRAP TIRE POLICY
- WHERE DO WE START?
- IMPLEMENTATION PROCESS
- REVIEW AND EVALUATION PROCESS

# WHAT ARE PUBLIC POLICIES?

- Public policy is the “set of activities by the government institutions , acting directly or through its agents, which attempt to have a certain influence over the lives of the constituents.
- Most public policies have a direct impact on the wellbeing of the people in the pursuit for the coexistence of groups and individuals , in spite of their differences.
- Public policies have to do with peoples access to goods and services. They consist precisely, of rules and actions with goals in responding to and solving the multiple needs, interests and preferences of groups and individuals in society.

# CREATION OF PUBLIC POLICY

- Creation of public policy implies five stages or steps.
- A) Establishing a public agenda.
- B) Definition of issues.
- C) Prevention
- D) Setting Objectives
- E) Choosing an option

# Steps in creating Public Policy

- Identify and define the issues
- Appreciate the current and future issue
- Select solutions
- Set up objectives and goals
- Select the means
- Implementation

# PP Elements

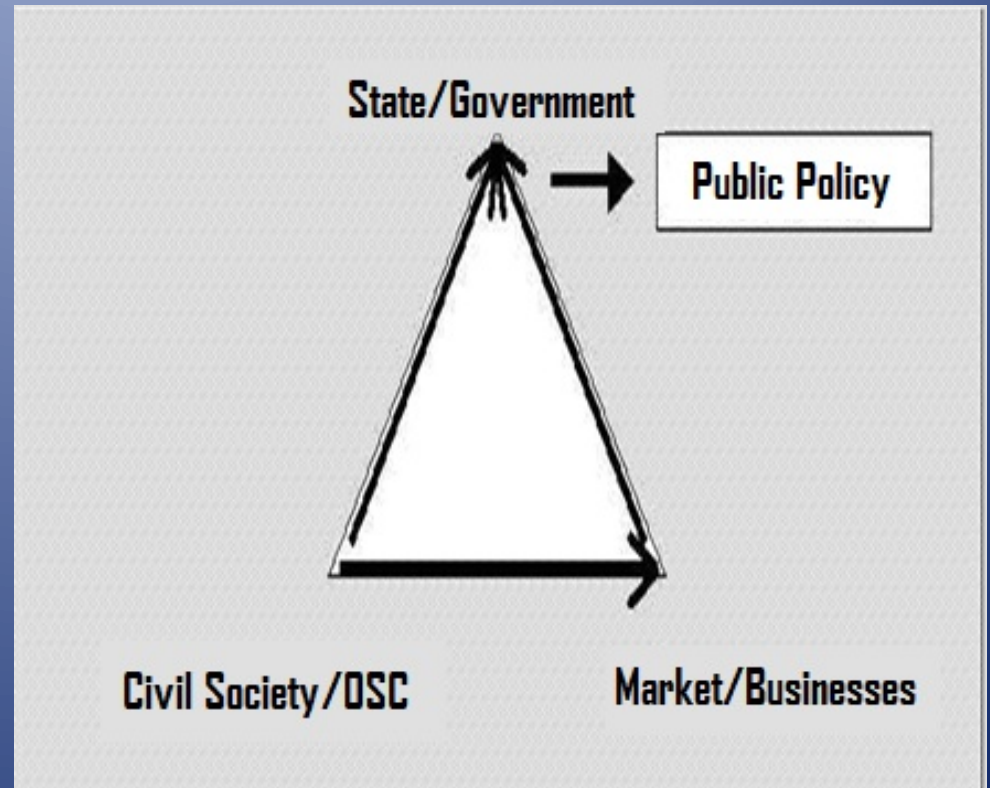
Opportunity

Quality

Transparency

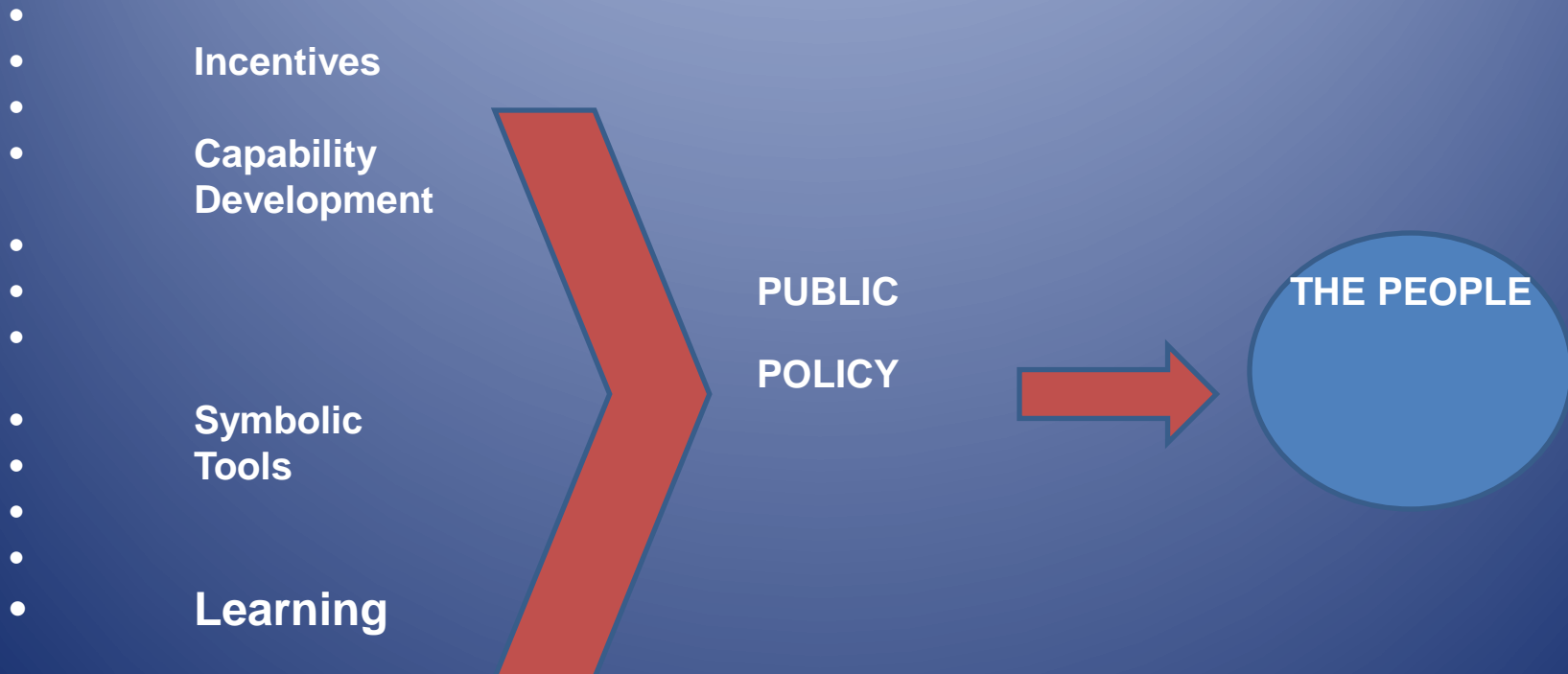
Social Appropriation

# Actors In Development of Public Policy



# Instrumentation of PP

- Every Public Policy must be implemented with certain tools to, which are used, first of all, to define it, then to specify it, shedule it, and finally, to translate it unto the people.



Source: Universidad Latina de America, e-Magazine IUS

**WHAT IS PUBLIC POLICY?:** DOMINGO RUIZ LÓPEZ, CARLOS EDUARDO CADÉNAS AYALA

# PP Development Elements

- ***Incentives:*** are payment or specific retribution awarded to elicit certain actions
- ***Capability Development:*** training in certain activities aimed at promoting integration and development
- ***Symbolic Tools.*** These are the tools used to change how society perceives something, so it may consider the State purposes as desirable
- ***Learning.*** This simultaneously involves concerned government agencies and the people to whom Public Policy is addressed



# THE SCRAP TIRE ISSUE

A Public Policy Attempt

# \* Mexican PP Situation Regarding Waste Prevention and Management

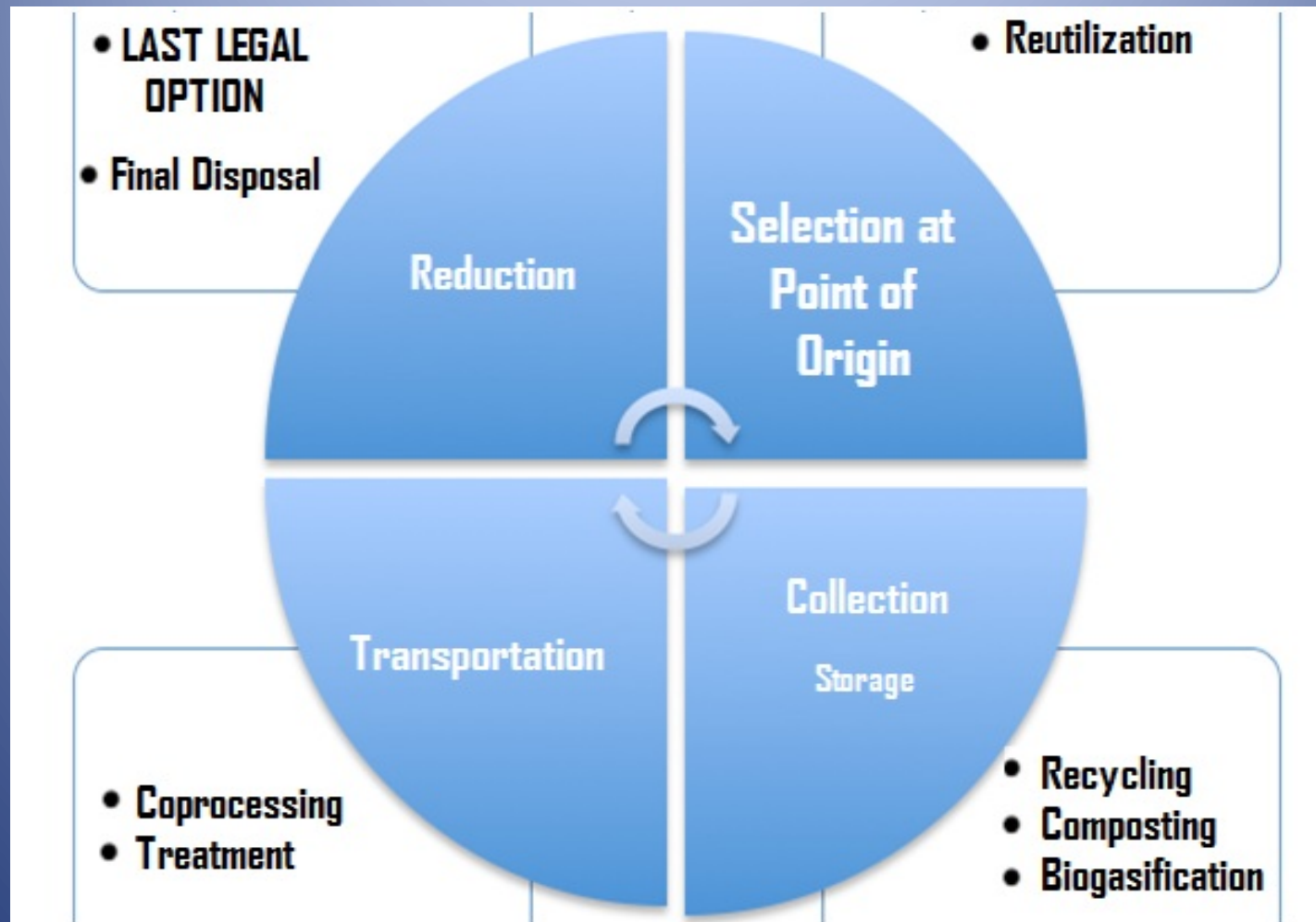
- \* Waste Prevention and Management Act (LGPGIR) and its Regulations

- \* Waste Prevention and Management Law and Regulations for the Federation State

- \* Municipal Regulations on the Environment and Waste

- \* National Program for Waste Prevention and Management (PNPGIR) and State Program, accordingly.

- \* Based on shared responsibilities among all sectors, to reduce generation, environmental assessment and management of waste



\* **Legal Definition of Comprehensive Waste Management**

# *Border 2012/2020*

## **Border 2012, Scrap Tire Management Initiative for the US-Mexico Border Region**

- Better understanding of the problems that contribute to the generation of scrap tires
- To prevent generation of new scrap tire polluted sites
- To clean-up the existing “legacy” sites, of scrap tires, by means of cost-effective solutions.
- To involve distributors and communities with creative solutions

## **Border 2020**

- Objective 1: By the year 2020, to increase capacity and knowledge at the local and state levels, on sustainable material management practices
- E strategies shall consider traditional means of communication and through networking, webinars, workshops and pilot projects, through associations, bothe public and private.
- Activities shall focus on various waste streams (electronics, used vehicles, green material, etc.) Activities shall seek out to improve the most efficient use of resources
- Objective 2: By 2014, identify and prioritize waste streams, and by 2020, develop sustainable management practices that will increase their mafket value

# A Long Story: Scrap Tires at the US-Mexico Border Region

- Where does it come from?
  - USA., Mexico, other countries
- How does it get here?
  1. Quotas, smuggling
  2. Loop holes in the Law that allows to import used tires as “miscellaneous”
  3. Customs Corruption
- Why does it arrive here?
  - Costs of new tires,
  - Market

# Actual Situation .....

- Used tires will continue to cross the border because of two fundamental market related reasons: 1. Consumers demand for this product, and 2. There is a supply that is seeking to satisfy the demand, thus, there is a market.
- This market has an estimated value of \$50 M to 130 M USD per year

# Progress Obstacles

- To consider the tire more as a waste than as a resource.
- To focus on storage and final disposal
- Law and standards are far from being applicable; based on “prohibiting” importation in order to reduce the arrival of used tires

# WHERE TO START?

A proposal



# First Approach

- The unstoppable entry of used tires is more a marketplace than a technical or logistics issue, and its solutions must include rules determined by the marketplace itself.
- To engage in the scrap tire debate of “resource/waste” in order to set forth the strategies to solve the tire issue.
- To consider the full cycle of the tire to consider the actors and assign responsibilities.

# Second Approach

- Refocus the analysis towards the creation of sustainable mechanisms, including cost recovery, collections, accounts receivables, storage, management and final disposal in the short, medium and long range context.
- Solution must also must go through the improvement of laws and regulations for the use, collection and storage of this material

# How Do We Start?

- USED TIRE GENERATION STUDY
- As a rule of thumb, scrap tire generation in industrialized countries is approx. one automobile tire per capita per year or its equivalent (20 lbs, 9 kg).
- In Mexico, to estimate the amount of scrap tires that each municipality produces, especially the urban type, and when population is over 20,000, it would suffice to take the population count and apply one scrap tire per inhabitant per year.

# And At the Border?

- If the border region population is nearly 15.6 M people, the scrap tire generation per year is, thus, 15.6 M tires for the region.
- There are no data that would indicate what the scrap tire situation is at the not-controlled dumpsites or accumulated in home patios, vacant lots, roofs and other sites. But it could be an even larger number than the number of tires found at the controlled dumpsites.

# BASIC ELEMENTS FOR A SCRAP TIRE POLICY

# *Basic Structure for the BECC Proposal*

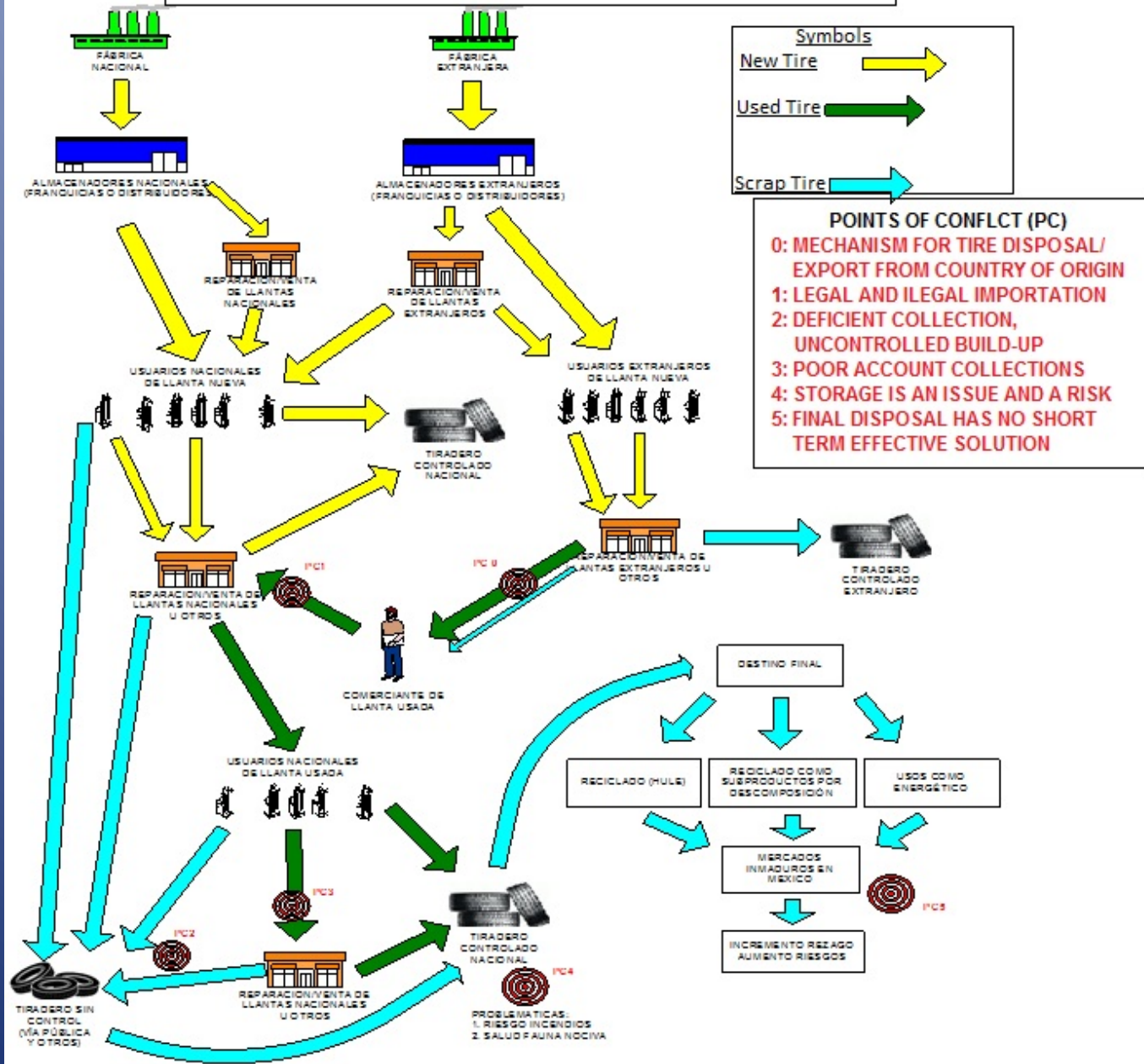
1. Description of a Tire Life Cycle and Identification of its “Points of Conflict” (PC).
2. Analysis of Issue of introduction/marketing of used tires and collection/disposal of scrap tires
3. Solution Proposals

# *Proposal Structure*

If a municipal scrap tire management strategy is to be implemented, it should include the following:

- Community Awareness development and Education Program to seek out community decisive involvement.
- Life cycle análisis and tire generation study.
- Access to Fiscal Resources to resolve the Scrap Tire Issue.
- Automobile Tire Use Standards at the Municipalities.
- Scrap Tire Collection Strategy.
- Scrap Tire Storage.
- Scrap Tire Final Disposal/Recycling.

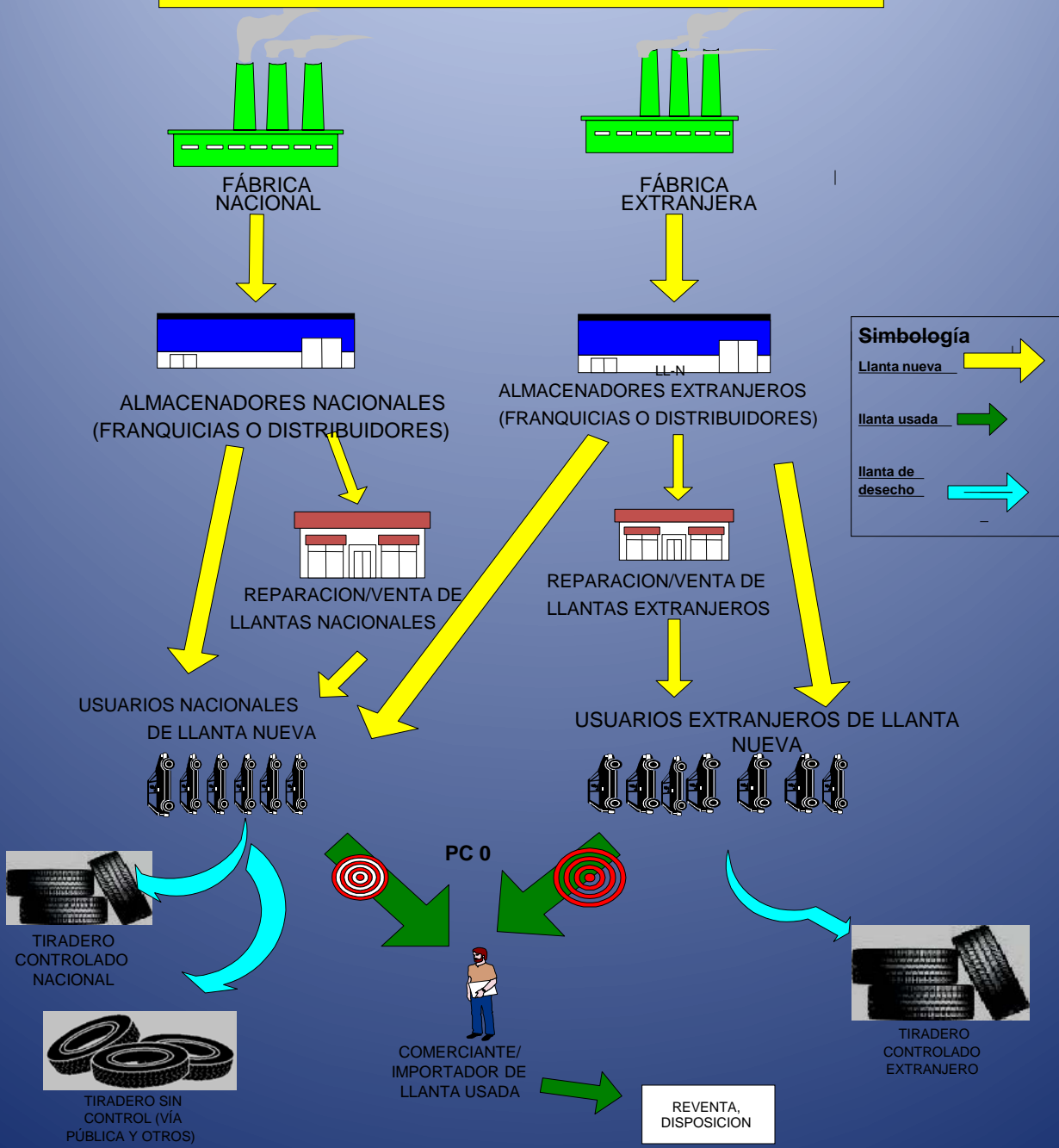
# CURRENT MODEL OF TIRE LIFE CYCLE



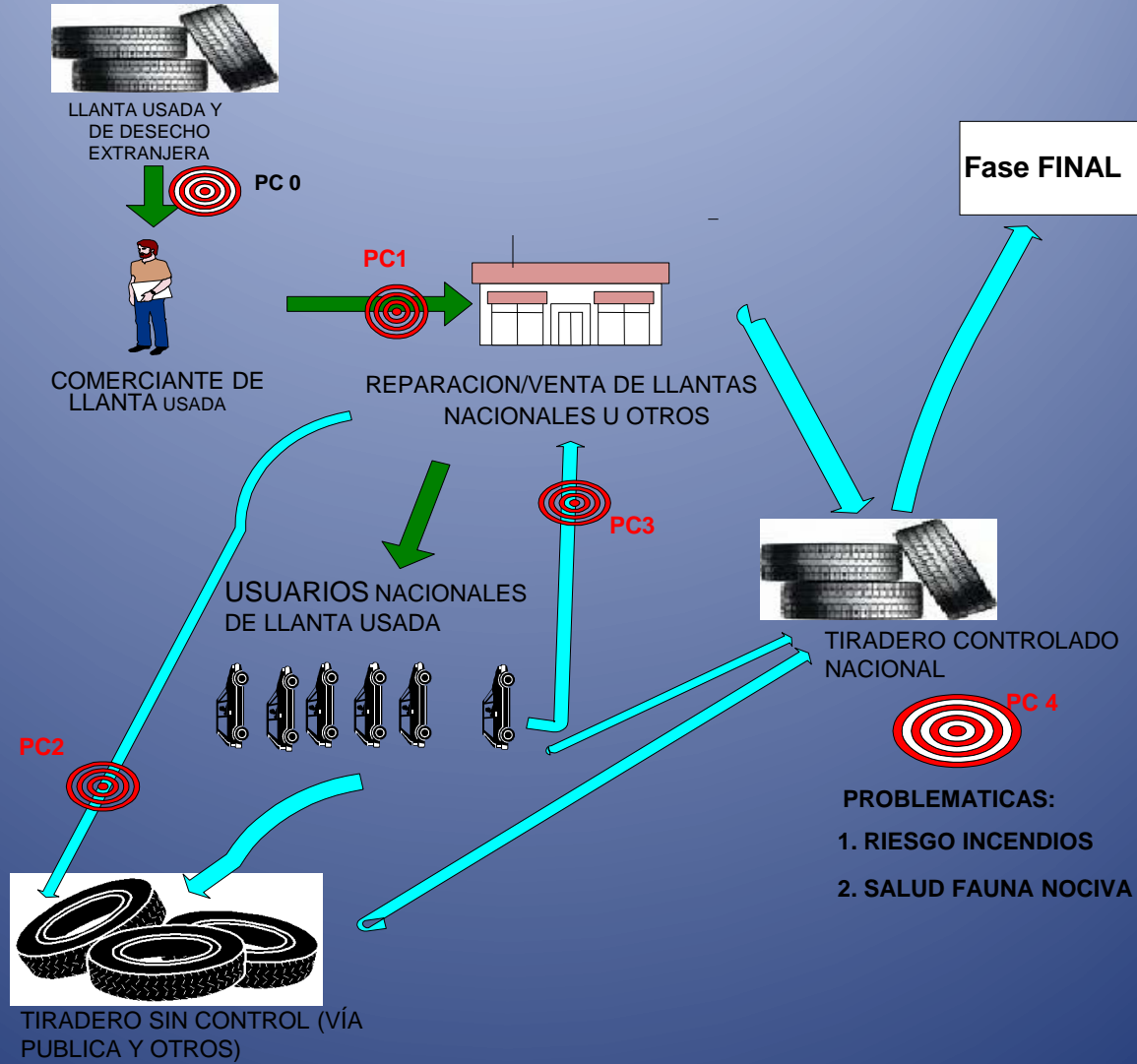


# TIRE LIFE CYCLE

## INITIAL FASE



# TIRE LIFE CYCLE INTERMEDIATE FASE



# TIRE LIFE CYCLE

## FINAL FASE



LLANTA DE  
DESECHO DE  
TIRADEROS  
CONTROLADOS

FASE FINAL

RECICLADO (HULE)

RECICLADO COMO  
SUBPRODUCTOS POR  
DESCOMPOSICIÓN

USOS COMO ENERGÉTICO

MERCADOS INMADUROS  
EN MEXICO

PC5



INCREMENTO REZAGO  
AUMENTO RIESGOS

### POINTS OF CONFLICT (PC)

- 0: MECHANISM FOR TIRE DISPOSAL/  
EXPORT FROM COUNTRY OF ORIGIN
- 1: LEGAL AND ILEGAL IMPORTATION
- 2: DEFICIENT COLLECTION,  
UNCONTROLLED BUILD-UP
- 3: POOR ACCOUNT COLLECTIONS
- 4: STORAGE IS AN ISSUE AND A RISK
- 5: FINAL DISPOSAL HAS NO SHORT  
TERM EFFECTIVE SOLUTION

## *Aspects of the Tire Life Cycle to be Analyzed*

- *Disposal/Export Mechanism for Tire in the Country of Origin*
- *Legal and Illegal sales of tires in Mexico*
- *Poor Scrap Tire Collection*
- *Collection of fees for scrap tire disposal*
- ***Storage is an issue and a risk***
- ***Lack of markets for recycled material***

# IMPLEMENTATION PROCESS

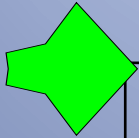
How to Start and Continue?

# Proposed Strategic Model

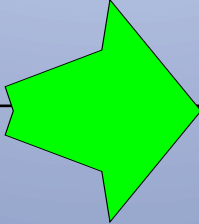
Based on the analysis presented, a model is proposed to provide the basic tools to the border zone municipalities to implement more adequate and sustainable procedures for scrap tire management.

PROPOSED STRATEGIC MODEL

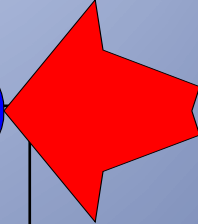
- ACADEMIC SECTOR
- BUSINESS SECTOR
- SOCIAL SECTOR
- ENVIRONMENTAL ORGANIZATIONS



MANAGEMENT GROUP



PUBLIC-PRIVATE TRUST FUND



STATE GOVERNMENT

MUNICIPAL GOVERNMENT



INTEGRATION STRATEGY



STRATEGIC FRAMEWORK

CROSS STRATEGIES

- I. LEGAL COMPLIANCE
- II. MEASURING AND ASSESSMENT
- III. EDUCATION
- IV. PROMOTION

GENERAL STRATEGIES

- 1. ACCOUNT RECEIVABLES
- 2. USE
- 3. COLLECTION
- 4. STORAGE
- 5. FINAL DISPOSAL

GOAL: COMPREHENSIVE SOLUTION TO THE USED TIRE ISSUE ALONG THE BORDER REGION

GOAL: CREATION OF A SUPPORT FRAMEWORK FOR THE GLOBAL STRATEGY

# Identified Cross-Strategies and Generation of Strategic Frameworks

- **Legal and Standards:** Creation of Standards for the Traffic Regulations and in the legal-judicial organisms of the Municipalities, such as the City Hall. Also, the Direction of Public Services of the Municipality, as well as the Collections Hubs and Controlled Dumpsites.
- **Education:** Development of education and training plans for:
  - Traffic officers
  - Employees of Garbage Service, Collection Centers and Controlled Dumpsites
  - The community, through educational and dissemination campaigns, including the massive media.
- **Measuring and Assessment:** System development to measure input/output of tires to and from controlled dumpsites. Development of performance indicators to follow-up on the process. Implementation of assessment programs for goal performance and fulfillment.



# General Strategies

## *A). Strategy for Regulation and Use of Tires*

- To regulate the use of tires for automotive vehicles in the municipality, starting at vehicle registration and/or license plate issuance.
- **Introduction and regulation of the concept of “useful life” of the tire.**

## B). Strategy for Scrap Tire Collection

To create a system that incentivates collection of scrap tires, in order to reach the following goals:

- To recover the scrap tires that are scattered around the entire municipality, both on public roads, vacant lots, ravines, hills, patios, houses, roofs, etc.
- To ascertain the tires that are categorized as scrap make it to the collecting or final disposal center, in an efficient and simple manner.

## *C). Strategy for a Revenue Tax System*

### Objectives

- To have sufficient resources to develop the Comprehensive Solution for scrap tires in the Municipality.
  - Gather resources to develop collection strategies
  - Gather resources to organize dumpsites in a sustainable and efficient manner.
  - Gather resources to invest in developing or importing technology for scrap tire management.

# \* Financing Options

Municipal  
Expense Budget

Ordinary and  
extraordinary  
fees.

Current Estate  
Physical, Human,  
Technology  
Resources

State and Federal  
Budgetary  
Resources

Private  
Investments and  
Foreign  
Financing

## *D). Storing System Development Strategy*

Storing tires in the traditional way is considered totally inadequate; storing must consider the future use and long term profit.

If the tire is to remain for a long time at the dumpsite, for whatever reason, then the strategy shall focus on mitigation of the associated risks.

## Suggestions for the Storing Strategy

- Storing as per:
  - Final disposal method.
  - Current development of the scrap tire markets.
- Review the Standards developed by SEMARNAT and the EPA for storing sites for scrap tires
- The storing strategy shall focus only short and medium term (0 to 15 years).
- For the long term (20-30 years) market maturity shall dictate the strategies.

## Storing/Reuse Suggestions

- If tires are to be incinerated for cogeneration, you may store them in piles depending on short term demand
- For the rest of the tires other alternatives that tend to reduce risk and storing space and management could be:
  - Shredding
  - Complete tire bales
  - Other .....

## *Some Preliminary Conclusions*

- Standards Framework needs to be developed
- Creation of a Trust Fund to ensure Program Sustainability.
- Adequate collection strategy must be established
- For final disposal, incineration for cogeneration of power seems to be the most real possibility in Mexico. ***Notwithstanding, the probable development of other technological and market options.***
- Therefore, storing these materials in the best conditions would be the most adequate recommendation, until the marketplace matures sufficiently.



# REVIEW AND ASSESSMENT PROCESS

How do you follow-up?

# Some Suggestions

- Define area and person responsible for the strategy.
- Request periodical (annual?) reports on operations and results (generation volume, collections, storing and disposal and recycling)
- Maintain a resource management area for the strategy, but kept separate from the Treasury of the Municipality.
- Support R&D of recycling technologies and enterprises.