

# Mexico Development Programme (MDP): 2025–2050 Overview

The **Mexico Development Programme (MDP)** is a transformative initiative aimed at revitalizing Mexico across multiple sectors in the next 25 years. By addressing key challenges and leveraging opportunities, the MDP initiative seeks to create a sustainable, equitable, and prosperous future for all citizens. This program is structured around 15 central pillars.



# **Key Pillars of the MDP -**

#### 1. Power & Energy Development

- Transition to renewable energy (solar, wind, geothermal).
- Upgrade power grids for efficiency and reliability.
- Strengthen public-private partnerships in energy investments.

## 2. Law & Order Development

- Modernize policing with advanced technologies like Al surveillance.
- Reform judicial systems for faster, fairer processes.
- Focus on community-based policing to build trust.

### 3. Industrial & Economic Development

- Establish innovation hubs in key industries such as technology, aerospace, and automotive.
- Support SMEs with accessible credit and resources.
- Incentivize sustainable and green practices in industries.

#### 4. Roadways & Transportation Development

- Develop high-speed rail to connect economic hubs.
- Modernize urban transit systems, emphasizing eco-friendly solutions.
- Improve port and airport infrastructure to boost trade.

#### 5. Redevelopment (Old Infrastructure to New)

- Retrofit outdated buildings to meet modern standards.
- Revitalize urban areas with smart city technologies.
- Build climate-resilient infrastructure to combat natural disasters.



## 6. Agriculture

- Promote sustainable farming practices to combat land degradation.
- Empower farmers through cooperatives and advanced tools.
- Utilize underdeveloped land for high-yield, eco-friendly farming.

#### 7. Job Creation

- Expand vocational and skill-training programs.
- Foster entrepreneurship through incubators and microloans.
- Create inclusive policies to ensure equitable opportunities.

#### 8. Special Economic Zones (SEZ)

- Establish SEZs near borders to attract foreign investment.
- Provide tax holidays for industries investing in innovation.
- Encourage integration of local communities into SEZ operations.

### 9. Digitalization

- Nationwide internet coverage for rural and underserved areas.
- Promote blockchain, AI, and big data technologies for transparency.
- Invest in digital literacy to bridge the technology gap.

#### 10. Social Reform

- Expand affordable housing and access to quality education.
- Develop social campaigns against corruption.
- Promote inclusion, gender equality, and community development.

#### 11. Healthcare Reform

- Expand access to universal healthcare, particularly in rural areas.
- Invest in research for prevalent diseases.
- Leverage telemedicine to reduce healthcare disparities.



## 12. Environmental Sustainability

- Launch aggressive reforestation and eco-tourism projects.
- Implement strict industrial pollution regulations.
- Promote renewable energy and environmental awareness.

#### 13. Education Innovation

- Foster global partnerships with leading universities.
- Focus on bilingual and STEM education.
- Create free online learning platforms for underprivileged communities.

#### 14. Water Resource Management

- Modernize water distribution networks to minimize waste.
- Invest in desalination and rainwater harvesting systems.
- Protect and rehabilitate rivers and lakes through community programs.

#### 15. Public Accountability & Transparency

- Introduce real-time tracking portals for government spending.
- Establish independent watchdog bodies to combat corruption.
- Promote citizen participation in local budgeting processes.

#### Goals of the MDP

- 1. Achieve sustainable development through clean energy and eco-friendly practices.
- 2. Strengthen Mexico's economy by fostering innovation, industry, and global trade.
- 3. Improve quality of life by expanding healthcare, education, and housing.
- 4. Promote inclusivity and equity in all sectors.
- 5. Enhance public trust through transparency and participatory governance.

This framework will guide the development efforts from 2025 to 2050, ensuring Mexico becomes a global leader in sustainability, innovation, and social equity.



# Mexico Development Programme (MDP): Power & Energy.

As of 2023, Mexico's electricity generation is predominantly reliant on fossil fuels, with natural gas being the primary source. Here's a detailed breakdown:

#### **Fossil Fuels:**

- Natural Gas: Accounts for approximately 58% of total electricity generation.
- Oil and Other Petroleum Products: Contribute about 9% to the electricity mix.
   Statista

## **Renewable Energy Sources:**

- Hydropower: Represents around 7% of electricity generation.
- Wind Energy: Contributes approximately 6% to the power mix.
- Solar Energy: Accounts for about 5% of electricity production.
   Statista

#### Other Sources:

- **Coal:** Provides around 10% of the electricity supply.
- Nuclear Energy: Contributes about 3% to the total generation.
   Statista

This composition indicates a heavy dependence on fossil fuels, particularly natural gas, with renewable energy sources making up a smaller fraction of the energy mix. The Mexican government has set ambitious targets to increase the share of clean energy, aiming for 35% by 2024. However, as of 2021, only 26.7% of electricity was generated from clean energy resources, highlighting the need for accelerated efforts to meet these goals.

#### **NREL**



# **MDP Power & Energy Transformation Plan (2025–2050)**

The goal is to transform Mexico into a global leader in sustainable and innovative power generation by leveraging its geographic potential, technological advancements, and strategic investments. This transformation will focus on reducing reliance on fossil fuels, achieving energy security, and becoming a global exporter of renewable energy.

## Work Plan and Breakdown

# 1. Establish Clear Targets and Benchmarks

- 2030: Achieve 50% of electricity generation from clean energy sources.
- **2040:** Reduce fossil fuel dependency to less than 20% of total power generation.
- 2050: Become a net exporter of clean energy to the Americas and beyond.

#### 2. Diversify and Expand Renewable Energy Capacity

#### Short-Term (2025-2030):

- Develop large-scale solar farms in high-insolation regions like Sonora and Chihuahua.
- Expand wind farms in Oaxaca, already one of the world's top wind energy locations.
- Incentivize small-scale, decentralized renewable energy installations, such as rooftop solar for households and businesses.

### Mid-Term (2031–2040):

- Invest in offshore wind farms along the Gulf of Mexico and Pacific coasts.
- Develop geothermal energy plants leveraging Mexico's volcanic regions.
- Scale up biomass energy production using agricultural waste and biofuels.



#### Long-Term (2041–2050):

- Introduce advanced energy technologies like hydrogen power plants and fusion reactors (if commercially viable).
- Establish Mexico as a hub for exporting renewable energy technologies.

## 3. Modernize and Expand Energy Infrastructure

#### **Grid Modernization:**

- Upgrade the national grid to a **smart grid** capable of integrating diverse energy sources and managing real-time energy distribution.
- Increase interconnectivity with North and Central America for energy trade.

#### **Energy Storage Solutions:**

- Develop large-scale battery storage systems to address intermittency in renewable energy.
- Invest in pumped hydro storage and advanced technologies like thermal storage.

### 4. Promote Energy Efficiency and Decentralization

- Launch nationwide campaigns to promote energy-efficient appliances and practices.
- Encourage decentralized power generation by supporting microgrids and community solar projects in rural areas.



# 5. Reform Policy and Regulatory Framework

- Establish long-term tax incentives and subsidies for renewable energy projects.
- Simplify regulations for private-sector investments in clean energy.
- Strengthen environmental regulations to phase out coal and heavily polluting industries by 2040.

## 6. Strengthen Public-Private Partnerships

- Partner with global renewable energy companies to bring cutting-edge technologies and expertise to Mexico.
- Encourage local entrepreneurship in green energy solutions by providing grants and low-interest loans.

### 7. Build Human and Institutional Capacity

- Launch training programs in renewable energy technologies for engineers, technicians, and policymakers.
- Collaborate with universities to establish renewable energy research and innovation centers.
- Promote global knowledge exchange through partnerships with international organizations and think tanks.



#### 8. Focus on Energy Export Potential

- Establish renewable energy export zones near the U.S. border to supply clean energy to North America.
- Develop infrastructure for exporting green hydrogen to Europe and Asia.
- Position Mexico as a leading provider of renewable energy to neighboring countries.

# **Projected Outcomes**

- 2030: Mexico becomes a regional leader in solar and wind energy generation, with a clean energy share of 50%.
- **2040**: Achieve energy independence with renewable energy sources covering 80% of national demand.
- **2050:** Mexico transitions into a global leader, exporting renewable energy and technologies, contributing significantly to global carbon neutrality goals.

# **Financial and Environmental Impact**

- Estimated investment: \$300 billion over 25 years, with substantial private-sector involvement.
- Economic benefits: Create over 2 million green jobs, boost GDP growth, and increase foreign investments.
- Environmental benefits: Reduce carbon emissions by 70%, enhance biodiversity by protecting natural landscapes.

By following this plan, Mexico can not only meet its domestic energy needs sustainably but also position itself as a trailblazer in the global renewable energy market.



# Mexico Development Programme (MDP): Law & Order.

As of 2024, Mexico faces significant challenges in law and order, characterized by high crime rates and complex law enforcement structures.

#### **Crime Statistics:**

 Homicides: The homicide rate decreased from 28 per 100,000 people in 2021 to 25.9 in 2022, yet remains among the highest globally. Approximately two-thirds of these homicides involved firearms.

**Human Rights Watch** 

 Daily Murders: Between January 2021 and July 2024, the average number of homicides per day fluctuated, peaking at 150 in May 2021 and reaching a low of 125 in October 2023.

Statista

Common Crimes: In January 2024, domestic violence was the most reported crime, with around 20,814 cases. Vehicle thefts were the most prevalent property crime, with nearly 11,887 incidents reported.
 Statista

#### Law Enforcement Structure:

Mexico's law enforcement operates at three levels: federal, state, and municipal, each with distinct responsibilities.

Federal Level: The National Guard (Guardia Nacional), established in 2019, serves as
the primary federal law enforcement agency, replacing the former Federal Police. It
functions as a gendarmerie under military authority, aiming to address widespread
violence and organized crime.

Wikipedia

- **State Level:** Each of Mexico's 32 states maintains its own police force, responsible for enforcing state laws and collaborating with federal and municipal agencies.
- **Municipal Level:** Municipal police handle local law enforcement, focusing on community policing and minor offenses within their jurisdictions.



## **Challenges:**

 Organized Crime: Despite efforts to combat organized crime, drug cartels and criminal organizations continue to exert significant influence, contributing to violence and undermining state authority.

**CFR** 

- **Corruption and Impunity:** Corruption within law enforcement and the judiciary hampers effective crime prevention and prosecution, leading to widespread impunity.
- Human Rights Concerns: Reports of human rights violations by security forces, including extrajudicial killings and enforced disappearances, have raised serious concerns.

**Human Rights Watch** 

Addressing these multifaceted issues is crucial for improving public safety and restoring trust in Mexico's law enforcement institutions.

# MDP Law & Order Transformation Plan (2025–2050)

The goal is to transform Mexico into one of the safest countries globally by creating a robust, transparent, and technology-driven law and order system. This transformation will address the root causes of violence, modernize enforcement infrastructure, and restore public trust.

# 1. Deploy Advanced Surveillance and Response Technologies

## **Globally Proven Technologies:**

- Autonomous Drones:
  - Current Use: Adopt drone surveillance systems used by countries like the U.S., Israel, and China for real-time crime detection and crowd monitoring.
  - Practical Deployment: Drones can patrol high-crime neighborhoods, monitor protests, and assist in search-and-rescue missions.



#### • Smart Surveillance Cameras:

- Current Use: Leverage Al-driven facial recognition cameras (as used in the UK and Singapore) for identifying suspects and tracking movements.
- Deployment in Mexico: Focus on urban centers and transport hubs initially, scaling to rural areas.

## **Emerging Technologies:**

- Gunshot Detection Systems:
  - Install acoustic sensors similar to the U.S.'s ShotSpotter to instantly locate gunfire.
  - Integrate this with dispatch systems to reduce response times.
- IoT and Edge Computing for Public Spaces:
  - Use connected IoT devices to detect unusual activities, abandoned objects, or overcrowding in sensitive areas.

# 2. Strengthen Cybersecurity and Digital Policing

### **Globally Proven Technologies:**

- Cybersecurity Frameworks:
  - Model after Estonia's robust e-government and cybersecurity systems.
  - Create a National Cybersecurity Command to safeguard critical infrastructure and monitor online threats.
- Blockchain for Transparency:
  - Implement blockchain systems (as piloted in Dubai and Estonia) for secure handling of evidence, digital case files, and police accountability.



## **Emerging Technologies:**

- Al-Powered Cybercrime Units:
  - Al tools to analyze patterns in phishing, hacking, and trafficking on the dark web.
  - Collaborate with global organizations for shared cybercrime intelligence.

# 3. Enhance Law Enforcement Capabilities

# **Globally Proven Technologies:**

- Body-Worn Cameras:
  - Mandate the use of cameras on all police officers, similar to programs in the U.S. and the UK, to increase accountability.
  - Use Al for real-time analysis of footage to flag anomalies or misconduct.
- VR/AR Training Simulations:
  - Adopt training technologies used by police in Germany and Japan for high-pressure decision-making scenarios (e.g., active shooter or hostage situations).

### **Emerging Technologies:**

- Al Decision Support Systems:
  - Provide officers with real-time data analytics and decision support during operations, as trialed in Scandinavian countries.
  - Use predictive analytics to preemptively deploy resources in high-risk areas.



# 4. Modernize the Judiciary and Penal System

#### **Globally Proven Technologies:**

- E-Court Systems:
  - Implement digital courtrooms, as seen in India and South Korea, to expedite trials and reduce corruption.
  - Allow digital evidence submissions and online hearings.
- Rehabilitation Programs with Al Monitoring:
  - Use AI to tailor rehabilitation plans for prisoners, monitoring compliance and progress (successfully used in Norway).

## **Emerging Technologies:**

- Behavioral Analysis via Al:
  - Integrate behavioral analysis tools in probation systems to assess reoffending risks.

# 5. Enhance Public Safety via Community Involvement

## **Globally Proven Programs:**

- Neighborhood Safety Hubs:
  - Replicate Japan's Kōban system (neighborhood police stations) for community policing.
  - Train officers to work closely with local leaders and civilians.
- Anonymous Crime Reporting Apps:
  - Develop apps modeled after platforms like iWitness (used in South Africa) to allow safe, anonymous reporting of crimes.



# **Emerging Technologies:**

- Crowdsourced Policing Tools:
  - Use geolocation-enabled apps for crowdsourced reporting of suspicious activities.

# 6. Address Organized Crime with Precision

# **Globally Proven Technologies:**

- Financial Tracking with Al:
  - Utilize systems like FinCEN in the U.S. to track illicit financial flows and money laundering.
  - Partner with global anti-cartel initiatives for data sharing.

# **Emerging Technologies:**

- Crypto Forensics Tools:
  - Develop AI tools to trace illegal activities in cryptocurrency networks.

# 7. National Safety Integration System

# **Globally Proven Systems:**

- Integrated Safety Networks:
  - Implement a national security system similar to Singapore's Command, Control, and Communications system (C3).



## **Emerging Technologies:**

- 5G-Driven Integration:
  - Use 5G networks for seamless integration of drones, cameras, IoT sensors, and law enforcement communications.

### Realistic Timelines and Outcomes

# Phase 1 (2025–2030): Focus on Proven Technologies

- Deploy drones, Al surveillance, and loT sensors in major cities.
- Establish a National Cybersecurity Command and blockchain-based transparency systems.
- Roll out body-worn cameras and enhance police training with AR/VR.

## Phase 2 (2031–2040): Scale and Innovate

- Expand autonomous drone networks to rural areas.
- Integrate predictive policing and behavior-based Al systems.
- Fully digitize judicial and penal systems.

### Phase 3 (2041–2050): Global Leadership

- Implement futuristic tech like Al-driven decision support and advanced IoT integration nationwide.
- Collaborate internationally to counter transnational crimes.



# **Projected Impact**

- By 2030: Major cities become significantly safer, with a 40% reduction in crime rates.
- By 2040: Organized crime is substantially weakened, and law enforcement achieves a high public trust rating.
- **By 2050:** Mexico becomes a global leader in safety, recognized for blending technology and community policing.

This framework aligns Mexico with the best global practices while embracing emerging, credible technologies to ensure a safer, more secure future.





# Mexico Development Programme (MDP): Industrial & Economic Development.

As of late 2024, Mexico's industrial and economic landscape presents a mix of resilience and emerging challenges:

#### **Economic Growth:**

 Gross Domestic Product (GDP): In the third quarter of 2024, Mexico's GDP grew by 1.1% compared to the previous quarter, marking the highest growth in over two years. This expansion was driven by gains in industrial output, services, and agricultural production.

Invezz

• Annual Forecasts: The Bank of Mexico has raised its GDP growth forecast for 2024 to 1.8%, up from the earlier prediction of 1.5%. However, a slowdown is anticipated in 2025, with growth projected at 1.2%.

The Wall Street Journal

#### **Industrial Production:**

 Sector Performance: Industrial production has shown variability, with a 0.4% decrease in September 2024 compared to the same month in the previous year.
 Trading Economics

 Manufacturing and Exports: Mexico has surpassed China as the main manufacturing trading partner of the U.S. in 2022 and continued this trend in 2023, indicating positive spillovers within Mexican manufacturing.

Dallas Federal Reserve

#### **Inflation and Monetary Policy:**

• **Inflation Rates:** The Bank of Mexico adjusted its inflation forecast for the end of 2024 to 4.7%, up from the previous estimate of 4.4%. The core inflation rate is expected to be 3.7%.

Reuters

Interest Rates: In response to cooling inflation and economic growth, the central bank
has cut the benchmark interest rate to 10.25%, with expectations of further reductions.
The Wall Street Journal



#### **Foreign Investment:**

• Inflow of Investments: Mexico has attracted significant foreign investments, with 535 announcements since 2023, particularly in manufacturing sectors benefiting from nearshoring trends. Companies like Amazon, Royal Caribbean, and Foxconn have announced substantial investments.

El País

 Regional Distribution: Approximately 70% of these investments are concentrated in eight states, including Nuevo León, Coahuila, and Querétaro, while others like Baja California Sur and Morelos receive fewer investments.

#### **Employment and Labor Market:**

 Job Creation: The labor market has shown signs of deceleration, with a slowdown in formal employment growth. Forecasts for job creation in 2024 and 2025 have been revised downward.

**BBVA Research** 

• **Wage Trends:** Despite economic growth, wage increases have not kept pace with inflation, affecting consumer purchasing power.

#### Trade Relations:

 Nearshoring Benefits: The relocation of manufacturing activities closer to the U.S. has bolstered Mexico's export performance, particularly in the automotive and electronics sectors.

OECD

• **Trade Agreements:** Mexico's participation in trade agreements like the USMCA continues to play a crucial role in its economic strategy, though uncertainties in U.S. trade policy pose risks.

The Wall Street Journal



#### **Challenges:**

- Productivity Levels: Mexico faces long-standing challenges such as low productivity and high inequalities, which need to be addressed to fully harness new growth opportunities.
  - **OECD** iLibrary
- **Political Uncertainty:** Upcoming elections and potential policy shifts introduce uncertainties that could impact economic stability and investor confidence.

In summary, while Mexico's economy exhibits resilience with moderate growth and increased foreign investment, it contends with challenges like inflationary pressures, employment slowdowns, and the need for structural reforms to enhance productivity and reduce inequality.

# MDP Industrial & Economic Development Transformation Plan (2025–2050)

The objective is to transform Mexico into a global economic hub by leveraging nearshoring trends, enhancing productivity, fostering innovation, and addressing systemic challenges such as inequality and low labor productivity. The plan will target key industries, promote regional development, and create an ecosystem for sustained economic growth.

### Work Plan and Breakdown

## 1. Establish Clear Targets and Benchmarks

- **2030:** Position Mexico as the leading nearshoring destination for manufacturing and technology in the Americas.
- **2040:** Achieve sustained annual GDP growth of 4-5% by diversifying industries and fostering innovation.
- **2050:** Rank among the top 10 global economies with equitable regional development and low income inequality.



# 2. Strengthen Industrial Base and Infrastructure

#### **Nearshoring and Manufacturing:**

- Short-Term (2025–2030):
  - Expand SEZs (Special Economic Zones) in strategic locations near the U.S.
  - Provide tax incentives for foreign companies investing in advanced manufacturing, automotive, and electronics sectors.
- Mid-Term (2031–2040):
  - Develop high-tech manufacturing clusters for semiconductors, Al hardware, and electric vehicles.
- Long-Term (2041–2050):
  - Transition to high-value manufacturing, leveraging robotics and AI to enhance productivity.

#### Infrastructure Development:

- Build world-class industrial parks with modern logistics and connectivity.
- Invest in renewable energy-powered industrial zones to ensure sustainability.
- Modernize ports, airports, and road networks to facilitate seamless trade.

#### 3. Foster Innovation and Digitalization

### **Technology and Startups:**

- Create innovation hubs in key cities, modeled after Silicon Valley and Shenzhen.
- Provide grants and funding for startups focusing on AI, IoT, and green technologies.

#### **Digital Economy:**

- Digitize public and private sectors to improve efficiency.
- Incentivize digital transformation in traditional industries like textiles, agriculture, and logistics.



#### **Educational Reforms:**

- Establish partnerships with global universities for research and development in advanced technologies.
- Focus on STEM education and technical training programs to prepare the workforce for high-tech jobs.

## 4. Enhance Productivity and Workforce Development

## Skill Development Programs:

- Launch nationwide vocational training programs aligned with industry needs.
- Provide reskilling opportunities for workers displaced by automation.

#### **Labor Market Reforms:**

- Implement policies to formalize informal labor markets, ensuring fair wages and worker protections.
- Increase minimum wage gradually to improve living standards without compromising competitiveness.

### 5. Boost Regional Development and Reduce Inequality

### **Decentralization of Industry:**

- Incentivize investments in underdeveloped regions like southern Mexico (e.g., Chiapas, Oaxaca).
- Provide financial support for local entrepreneurs in less developed areas.



#### **Rural Development:**

- Develop agro-processing industries in rural areas to integrate agriculture into global supply chains.
- Promote eco-tourism and local craftsmanship to diversify rural economies.

### 6. Promote Trade and Global Integration

### **Trade Agreements:**

- Strengthen participation in the USMCA and explore new trade partnerships with Asia and Europe.
- Position Mexico as a logistics hub for global trade, connecting North and South America.

#### **Export Growth:**

- Focus on high-value exports such as electric vehicles, green technologies, and precision machinery.
- Develop branding strategies for Mexican goods to increase their value in global markets.

### 7. Address Structural Challenges

#### Low Productivity:

- Automate repetitive tasks in industries to boost efficiency.
- Introduce lean manufacturing practices and global best standards.

# Income Inequality:

- Provide universal access to quality healthcare and education.
- Implement progressive taxation and targeted subsidies for the poor.



## **Corruption and Governance:**

- Enhance transparency through blockchain-based systems for public projects.
- Establish independent watchdogs to monitor the use of government funds.

# **Projected Impact**

- By 2030: Mexico emerges as a dominant player in nearshoring, attracting global manufacturing giants. Annual GDP growth stabilizes at 3-4%.
- By 2040: Industrial clusters across the country reduce regional disparities and create
  millions of high-paying jobs. Exports grow significantly, with Mexico leading in high-value
  goods.
- By 2050: Mexico becomes a global economic hub, with a diverse, innovative economy and low income inequality.

### Financial and Social Benefits

- **Estimated Investment:** \$500 billion over 25 years, funded through public-private partnerships and international loans.
- **Job Creation:** Generate over 5 million formal sector jobs, with a focus on high-tech and high-value industries.
- **Social Benefits:** Reduce income inequality, increase purchasing power, and ensure equitable regional development.

By following this plan, Mexico can capitalize on global economic shifts and its geographical advantage to become a global leader in industrial and economic development.



# Mexico Development Programme (MDP): Roadways & Transportations.

As of 2024, Mexico's roadways and transportation infrastructure exhibit both advancements and ongoing challenges:

#### Road Infrastructure:

- Expansion and Modernization: The Secretariat of Communications and Transport (SCT) announced a \$12.53 billion investment plan to construct or improve 8,115 km of roads in 2024. This includes 51 major projects aimed at reducing congestion and enhancing safety on federal routes, as well as building 53 new roads in rural areas. World Highways
- National Road Network (RNC): A collaborative effort between the SCT, the Mexican
  Institute of Transportation (IMT), and the National Institute of Statistics and Geography
  (INEGI) has produced a detailed digital and georeferenced mapping of the country's
  road infrastructure. This model facilitates route calculations and adheres to international
  standards.

Proyectos México

#### **Urban Transportation:**

Mexico City's Infrastructure Plan: In 2024, Mexico City unveiled a \$1.13 billion infrastructure program encompassing 21 priority projects across seven key areas, including road infrastructure and mobility enhancements. The plan focuses on sustainable urban development and improved public spaces.
 Mexico Business News

#### **Rail Transportation:**

• **Tren Maya Project:** As part of the National Development Plan 2019-2024, the Tren Maya railway project aims to boost tourism and transportation in the south-southeast region. The project includes the construction of new railway lines to enhance connectivity and economic development.

Railway Technology



#### **Challenges:**

- Maintenance Needs: Despite investments, many existing roads require maintenance and upgrades to meet safety and quality standards.
- **Urban Congestion:** Major cities like Mexico City face significant traffic congestion, necessitating comprehensive urban mobility solutions.
- Rural Connectivity: Rural areas often lack adequate road infrastructure, hindering economic development and access to services.

In summary, while Mexico has made strides in expanding and modernizing its transportation infrastructure, ongoing efforts are needed to address maintenance, urban congestion, and rural connectivity to support sustainable economic growth and development.

# MDP Roadways and Transportation Development Transformation Plan (2025–2050)

The goal is to establish Mexico as a global leader in sustainable, efficient, and inclusive transportation infrastructure, connecting rural and urban regions while enhancing trade and mobility. The transformation will address existing challenges and prepare the country for future demands.

#### Work Plan and Breakdown

# 1. Establish Clear Targets and Benchmarks

- **2030:** Upgrade 70% of existing roadways to meet international safety standards, reduce urban congestion by 20%, and improve rural connectivity by 30%.
- **2040**: Achieve full intermodal integration of transport systems and expand high-speed rail coverage nationwide.
- 2050: Transition to a sustainable, carbon-neutral transportation network across all modes.



# 2. Expand and Modernize Road Infrastructure

## Short-Term (2025–2030):

- **Upgrade Existing Roads:** Focus on maintenance and modernization of federal highways to improve safety and efficiency.
- **Improve Rural Connectivity:** Build 10,000 km of new rural roads to connect underserved regions, enhancing economic opportunities.
- **Smart Roadways:** Deploy IoT-enabled smart roads with traffic sensors, automated tolling, and real-time monitoring systems.

# Mid-Term (2031–2040):

- Expressways and Logistics Corridors: Develop expressways and dedicated logistics corridors linking industrial hubs with major ports and borders.
- **Eco-Friendly Roads:** Use recycled materials and solar-powered lighting in road construction.

## Long-Term (2041-2050):

- Autonomous Vehicle Infrastructure: Design highways compatible with autonomous and electric vehicles, incorporating charging stations and dedicated lanes.
- Climate-Resilient Roads: Build roads capable of withstanding extreme weather conditions to ensure uninterrupted connectivity.

# 3. Develop Sustainable Urban Mobility

#### Short-Term (2025–2030):

- **Public Transit Expansion:** Modernize and expand metro systems, BRT (Bus Rapid Transit), and light rail networks in major cities.
- **Electric Bus Fleets:** Transition city buses to electric vehicles, starting with highly polluted urban areas.



#### Mid-Term (2031–2040):

- **Integrated Mobility Systems:** Create unified ticketing systems for metro, buses, and bicycles, similar to those in Singapore and Tokyo.
- **Urban Traffic Management:** Use Al to manage traffic flow dynamically, reducing congestion by optimizing signals and routes.

#### Long-Term (2041-2050):

- Autonomous Public Transit: Implement autonomous trains and buses in major urban centers.
- **Green Mobility Networks:** Connect urban areas with bike lanes, pedestrian paths, and green corridors.

# 4. Boost Rail and High-Speed Rail Networks

#### Short-Term (2025–2030):

- Tren Maya Completion: Finalize the Tren Maya project and ensure its integration with regional transport systems.
- **Freight Rail Modernization:** Upgrade freight rail to reduce road traffic and enhance trade efficiency.

## Mid-Term (2031–2040):

• **High-Speed Rail (HSR):** Launch new HSR lines connecting Mexico City with Guadalajara, Monterrey, and Cancun.

#### Long-Term (2041-2050):

 Nationwide Rail Network: Build an extensive rail network linking all major cities and industrial hubs.



# 5. Leverage Ports and Airports

# Short-Term (2025–2030):

- Port Modernization: Expand and upgrade key ports, including Veracruz and Lázaro Cárdenas, to handle larger trade volumes.
- Airport Upgrades: Enhance regional airports to boost tourism and reduce congestion in major hubs.

### Mid-Term (2031-2040):

• Intermodal Terminals: Develop hubs integrating air, rail, and road transport for seamless cargo and passenger movement.

## Long-Term (2041-2050):

 Green Airports: Transition airports to net-zero emissions through renewable energy and energy-efficient designs.

# 6. Focus on Sustainability and Innovation

#### Sustainable Practices:

- Incentivize the use of electric and hybrid vehicles with tax breaks and subsidies.
- Promote carpooling and shared mobility platforms in urban areas.

## **Smart Transportation:**

- Implement Al-driven logistics platforms to optimize cargo movements across the country.
- Deploy autonomous drones for cargo delivery in remote and inaccessible regions.



# 7. Enhance Governance and Financing

#### **Public-Private Partnerships (PPPs):**

 Encourage private investments in large-scale transportation projects by offering long-term concessions and incentives.

### **Transparent Project Oversight:**

• Use blockchain for real-time tracking of project funds to prevent corruption.

# Funding for Rural Areas:

 Establish a national transportation development fund to ensure equitable investment in rural connectivity.

# **Projected Impact**

#### **Economic Benefits:**

- Boost GDP by 3-4% annually through improved trade and connectivity.
- Reduce logistics costs for industries by 20%, enhancing competitiveness.

#### **Social Benefits:**

- Create 5 million jobs in construction, logistics, and technology sectors.
- Ensure equitable access to mobility, improving quality of life across rural and urban areas.

#### **Environmental Benefits:**

- Reduce transportation-related emissions by 50% by 2040.
- Transition to fully carbon-neutral transport systems by 2050.



By following this phased and sustainable approach, Mexico can become a leader in transportation innovation and a global example of connectivity and mobility by 2050.





# Mexico Development Programme (MDP): Redevelopment (Old Infrastructure to New)

As of 2024, Mexico is actively engaged in redeveloping its infrastructure to address urban challenges and promote sustainable growth. Key initiatives include:

## **Urban Revitalization Projects:**

- 36x36 Project Series: Colectivo C733, in collaboration with the Secretariat for Agrarian, Land, and Urban Development (SEDATU), completed 36 public projects in 36 months, focusing on revitalizing vulnerable urban and rural areas. This effort earned them the 2024 Obel Award.
  - ArchDaily
- Mexico City's Infrastructure Plan: In 2024, Mexico City launched a US\$1.13 billion program encompassing 21 priority projects across seven areas, including sustainable urban development and public space enhancement.
   Mexico Business News

#### National Redevelopment Efforts:

- Lake Texcoco Ecological Park: Following the cancellation of a planned airport, the government inaugurated the Lake Texcoco Ecological Park in August 2024, transforming the area into a significant ecological restoration project.
   Wikipedia
- National Infrastructure Plans: The administration has announced multiple infrastructure investment plans, such as a US\$14.2 billion initiative in 2020, focusing on large-scale projects to stimulate economic recovery and development.
   HK Law

#### Challenges:

- Urban Sprawl and Inequality: Rapid urbanization has led to sprawling developments, often lacking adequate public spaces and services, exacerbating social inequalities.
   Wired
- **Aging Infrastructure:** Many existing structures require modernization to meet current safety and efficiency standards.



• **Environmental Concerns:** Balancing development with environmental preservation remains a critical issue.

In summary, Mexico is proactively redeveloping its infrastructure through various urban and national projects. However, challenges such as urban sprawl, aging facilities, and environmental sustainability need continuous attention to ensure balanced and inclusive growth.

# **MDP Redevelopment Transformation Plan (2025–2050)**

The goal is to transform Mexico's aging infrastructure into modern, sustainable, and inclusive systems that support economic growth and enhance the quality of life. By leveraging global best practices and addressing Mexico's unique challenges, the redevelopment plan will focus on urban revitalization, infrastructure modernization, and sustainable growth.

#### Work Plan and Breakdown

### 1. Establish Clear Targets and Benchmarks

- **2030**: Retrofit 50% of aging infrastructure in urban areas and establish ecological redevelopment zones in major cities.
- 2040: Transform all critical infrastructure to meet global safety, efficiency, and sustainability standards.
- **2050**: Position Mexico as a global leader in sustainable infrastructure design and implementation.



# 2. Urban Redevelopment

#### Short-Term (2025–2030):

- **Upgrade Public Spaces:** Revitalize parks, plazas, and urban centers following the model of Singapore's green city initiatives.
- **Affordable Housing:** Redevelop informal settlements into planned communities with utilities, inspired by Brazil's Favela-Bairro project.
- **Smart City Initiatives:** Pilot smart city projects in cities like Monterrey and Guadalajara, using IoT for efficient resource management.

#### Mid-Term (2031–2040):

- Mixed-Use Developments: Promote zoning reforms to create walkable, mixed-use neighborhoods like Copenhagen's urban design.
- **Heritage Preservation:** Integrate heritage conservation into urban redevelopment, following Italy's model for historical cities.

#### Long-Term (2041–2050):

• Inclusive Cities: Scale up efforts to ensure all cities have equitable access to services, using Medellín, Colombia, as a model for inclusive urban transformation.

#### 3. Infrastructure Modernization

## Short-Term (2025–2030):

- **Transport Infrastructure:** Upgrade roads, bridges, and tunnels to meet global safety standards, prioritizing high-traffic areas.
- **Energy-Efficient Buildings:** Retrofit public buildings with energy-efficient technologies, drawing inspiration from Germany's green building initiatives.



#### Mid-Term (2031–2040):

- **Smart Grids and Utilities:** Implement smart utility grids to reduce energy and water wastage.
- **Climate-Resilient Infrastructure:** Design infrastructure to withstand extreme weather, using Japan's earthquake-resilient architecture as a benchmark.

#### Long-Term (2041-2050):

 Autonomous Infrastructure: Develop infrastructure to support autonomous vehicles and drones, aligning with emerging global trends.

# 4. Rural Redevelopment

# Short-Term (2025–2030):

- **Connectivity Projects:** Build modern rural roads and bridges to connect isolated regions to urban centers.
- Agro-Processing Hubs: Establish agro-processing and logistics hubs to integrate rural areas into the national economy.

#### Mid-Term (2031-2040):

- **Decentralized Utilities:** Deploy solar microgrids and water purification systems in rural communities.
- Rural Town Revitalization: Revamp small towns with improved housing, schools, and healthcare facilities.

#### Long-Term (2041-2050):

• **Integrated Rural-Urban Linkages:** Develop integrated transportation and communication networks to seamlessly connect rural and urban areas.



# 5. Environmental Redevelopment

## Short-Term (2025–2030):

- **Urban Reforestation:** Plant urban forests and green belts following Seoul's urban greening projects.
- **Ecological Parks:** Expand ecological parks, inspired by New York's High Line and Mexico's own Lake Texcoco Park.

#### Mid-Term (2031-2040):

- Waterway Redevelopment: Restore rivers and lakes in cities, drawing inspiration from Medellín's Medellín River Parks.
- Sustainable Waste Management: Implement waste-to-energy plants and recycling hubs.

### Long-Term (2041-2050):

• Carbon-Neutral Cities: Achieve carbon neutrality in major cities through comprehensive green policies.

# 6. Governance and Financing

### **Public-Private Partnerships (PPPs):**

 Collaborate with international organizations like the World Bank and private developers for funding large-scale projects.

### **Innovative Financing Models:**

• Use green bonds to finance sustainable infrastructure, following the success of India's renewable energy projects.



## **Transparent Oversight:**

 Deploy blockchain technology to ensure transparency and accountability in redevelopment projects.

# **Projected Outcomes**

#### **Economic Benefits:**

- **2030**: Increase construction sector GDP contribution by 5% through redevelopment projects.
- 2040: Boost international investment in urban and rural redevelopment by 40%.
- 2050: Position Mexico as a top destination for eco-tourism and green businesses.

#### **Social Benefits:**

- Create 2 million jobs in construction, urban planning, and green technology sectors.
- Provide modern housing and infrastructure for 50 million people in underserved areas.

#### **Environmental Benefits:**

- Reduce urban heat island effects by 30% through greening initiatives.
- Achieve zero waste in major cities by 2050.

By integrating proven global strategies and innovative solutions, the MDP initiative can transform Mexico's infrastructure into a foundation for sustainable growth, equity, and resilience.



# Mexico Development Programme (MDP): Agriculture

As of 2024, Mexico's agricultural sector plays a significant role in the nation's economy, contributing approximately 3.5% to the Gross Domestic Product (GDP). The sector encompasses a diverse range of crops and livestock, with notable production of corn, wheat, sorghum, and various fruits.

#### Land Utilization:

- Arable Land: In 2021, arable land constituted about 10.3% of Mexico's total land area, equating to approximately 20 million hectares.
  - World Bank Data
- Agricultural Land: Agricultural activities, including arable land, permanent crops, and pastures, accounted for 54.9% of the country's land use as of 2018.
   Index Mundi

#### **Production Trends:**

- Grains: For the marketing year 2024/2025, corn production is forecasted at 24.5 million metric tons, reflecting a 7% decrease from the five-year average. Wheat production is projected at 2.6 million metric tons, marking a 22% decline from the five-year average. iPad FAS USDA
- Fruits: The production of deciduous fruits, such as apples and table grapes, remains stable, with minor fluctuations anticipated in the 2024/2025 marketing year.
   FAS USDA

# **Trade Dynamics:**

- Imports: Due to domestic production shortfalls, Mexico is expected to increase imports of corn and wheat in the 2024/2025 marketing year.
   FAS USDA
- **Exports:** The agricultural sector's export value is projected to reach approximately \$15.2 billion in 2024, with an anticipated annual growth rate of 4.6% through 2029. Statista



## **Challenges:**

- Climate Variability: Extreme weather events, such as droughts and temperature fluctuations, have adversely affected crop yields, exemplified by a national pickle shortage in the U.S. linked to unfavorable conditions in Mexico.
   New York Post
- Trade Policies: Proposed tariffs on Mexican agricultural exports to the U.S. could disrupt established trade flows, impacting commodities like beef, pork, and vegetables.
   Reuters
- Land Utilization: Despite a significant portion of land dedicated to agriculture, there remains underutilized arable land that could be harnessed to boost production.

In summary, while Mexico's agricultural sector is a cornerstone of its economy, it faces challenges related to climate change, trade uncertainties, and land utilization. Addressing these issues is crucial for enhancing productivity and ensuring food security.

# MDP Agriculture Development Transformation Plan (2025–2050)

The goal is to transform Mexico into a global agricultural leader by maximizing land utilization, leveraging advanced technologies, and building climate-resilient systems. The plan will address existing challenges such as underutilized land, climate variability, and trade uncertainties while ensuring sustainable practices and food security.

## Work Plan and Breakdown

#### 1. Establish Clear Targets and Benchmarks

- **2030:** Double the yield of key crops like corn, wheat, and fruits using precision farming and sustainable practices.
- **2040:** Ensure food security by reducing dependency on imports by 70%.
- **2050:** Position Mexico as a top global exporter of agricultural products and a model for sustainable agriculture.



## 2. Maximize Land Utilization

# Short-Term (2025–2030):

- Land Reclamation: Identify and rehabilitate underutilized arable land using soil testing and fertility enhancement techniques, inspired by Israel's success in arid agriculture.
- **Crop Zoning:** Develop region-specific crop plans to optimize productivity based on soil and climate conditions.

# Mid-Term (2031-2040):

- Vertical Farming: Introduce vertical farming in urban and semi-urban areas to address space limitations and enhance local food production.
- Crop Rotation and Diversification: Promote rotation systems to maintain soil health and reduce pest risks.

#### Long-Term (2041–2050):

 Smart Agro-Towns: Establish agro-towns with advanced farming infrastructure to integrate agriculture and local community development.

# 3. Leverage Advanced Agricultural Technologies

# Short-Term (2025–2030):

- **Precision Farming:** Deploy IoT sensors, drones, and satellite imagery to monitor crop health and optimize inputs like water, fertilizers, and pesticides.
- AgriTech Training: Establish training centers to equip farmers with skills in using modern tools and software for farming.



# Mid-Term (2031-2040):

- Al in Agriculture: Use Al for predictive analytics to anticipate weather patterns and market demand.
- Automated Farming Equipment: Introduce automated machinery for planting, harvesting, and irrigation.

## Long-Term (2041–2050):

• **Biotechnology:** Invest in genetically modified crops that are drought- and pest-resistant, similar to advancements in the U.S. and Brazil.

# 4. Build Climate-Resilient Systems

## Short-Term (2025-2030):

- Water Resource Management: Expand rainwater harvesting systems and micro-irrigation techniques to improve water efficiency, following India's micro-irrigation model.
- Climate-Resilient Crops: Promote the cultivation of climate-tolerant crops suited to extreme weather conditions.

## Mid-Term (2031–2040):

- Carbon Farming: Incentivize practices that capture carbon in soil, contributing to both agricultural productivity and climate goals.
- Agroforestry: Combine forestry and agriculture to enhance biodiversity and create natural climate buffers.

## Long-Term (2041-2050):

 Desert Farming: Develop technologies to cultivate crops in arid and semi-arid regions, inspired by successes in Saudi Arabia and Australia.



# 5. Strengthen Trade and Export Capacity

# Short-Term (2025–2030):

- Trade Diversification: Expand trade agreements with Asia and Europe to reduce reliance on U.S. markets.
- Value-Added Products: Invest in processing facilities to export higher-value goods like packaged fruits, organic products, and dairy.

## Mid-Term (2031-2040):

- Cold Chain Logistics: Establish advanced cold chain infrastructure to minimize post-harvest losses and maintain export quality.
- **Export Branding:** Develop a "Made in Mexico" brand for agricultural products to enhance their global reputation.

## Long-Term (2041-2050):

• **Global Export Leader:** Aim to be a top-five exporter of agricultural products by focusing on quality, innovation, and sustainable practices.

# 6. Promote Sustainability

#### Short-Term (2025-2030):

- Organic Farming: Incentivize farmers to adopt organic farming methods to meet rising global demand.
- **Zero Waste:** Implement recycling and waste management systems for agricultural residues.



## Mid-Term (2031–2040):

- Renewable Energy in Farming: Transition farms to solar and wind energy to reduce operational costs and carbon emissions.
- Sustainable Fisheries: Expand sustainable aquaculture practices in coastal regions.

## Long-Term (2041–2050):

• **Circular Agriculture:** Achieve a closed-loop agricultural system where all inputs and outputs are sustainably managed.

# 7. Enhance Farmer Support and Development

#### Short-Term (2025–2030):

- **Financial Support:** Provide low-interest loans and subsidies for adopting modern farming technologies.
- **Insurance:** Expand crop insurance schemes to mitigate risks from climate variability.

## Mid-Term (2031-2040):

- Cooperatives: Strengthen farmer cooperatives to improve bargaining power and access to markets.
- **Digital Platforms:** Create online platforms for direct farmer-to-consumer sales, reducing middlemen.

# Long-Term (2041-2050):

• Education and Research: Establish world-class agricultural research centers focusing on innovations in farming and sustainability.



# **Projected Outcomes**

#### **Economic Benefits:**

- 2030: Increase agricultural GDP contribution to 6%.
- 2040: Boost export revenue by 150% through high-value goods.
- 2050: Achieve self-sufficiency in staple crops, reducing import dependency.

#### **Social Benefits:**

- Provide improved livelihoods for over 10 million farmers.
- Ensure food security for Mexico's growing population.

#### **Environmental Benefits:**

- Reduce water usage by 40% through micro-irrigation.
- Mitigate agricultural emissions, contributing to Mexico's climate goals.

By following this plan, Mexico can revitalize its agricultural sector, ensure food security, and establish itself as a global leader in sustainable farming by 2050.



# Mexico Development Programme (MDP): Job Creation

As of 2024, Mexico's labor market exhibits both strengths and challenges:

# **Unemployment Rate:**

• The unemployment rate stood at 2.9% in September 2024, consistent with the same period in the previous year.

**Trading Economics** 

## **Labor Force Participation:**

 In the second quarter of 2024, the labor participation rate was 60.2%, indicating that a significant portion of the working-age population remains outside the labor force.
 Secretaría de Economía

# Gender Disparities:

• Female labor force participation is notably lower, with 45.6% of working-age women employed compared to 77.5% of men. Addressing this gap could substantially boost economic activity.

Reuters

## Informal Employment:

 A considerable segment of the workforce is engaged in informal employment, lacking access to social security and benefits, which poses challenges for economic stability and worker welfare.

## **Minimum Wage Developments:**

 The minimum wage has seen significant increases, with a 20% annual rise leading up to 2024. President Claudia Sheinbaum plans to continue this trend with approximately 12% annual increases to enhance workers' purchasing power.
 Reuters



## **Challenges:**

- **Underemployment:** Many workers are employed below their skill levels or in part-time roles when full-time employment is desired.
- Youth Unemployment: Young individuals face higher unemployment rates, indicating challenges in transitioning from education to the labor market.
- **Regional Disparities:** Employment opportunities vary significantly across regions, with rural areas experiencing higher unemployment and limited job prospects.

In summary, while Mexico maintains a relatively low unemployment rate, issues such as low labor force participation, gender disparities, informal employment, and regional inequalities present ongoing challenges that need to be addressed to foster inclusive economic growth.

# MDP Job Creation Transformation Plan (2025–2050)

The goal is to create a robust, inclusive, and diverse job market in Mexico by addressing structural challenges such as informal employment, gender disparities, youth unemployment, and regional inequalities. Leveraging global best practices and future-ready strategies, this initiative aims to integrate Mexico's workforce into a thriving, equitable, and innovation-driven economy.

## Work Plan and Breakdown

#### 1. Establish Clear Targets and Benchmarks

- **2030:** Formalize 50% of informal jobs and achieve a 10% increase in labor force participation, particularly among women and youth.
- **2040:** Eliminate regional disparities by creating high-quality jobs in underserved areas.
- **2050:** Establish Mexico as a global hub for talent in manufacturing, technology, and green industries, with full employment and fair wages.



# 2. Formalize Informal Employment

# Short-Term (2025–2030):

- Incentives for Formalization: Provide tax breaks and subsidies for small businesses transitioning to formal employment practices, similar to initiatives in Brazil's "Simples Nacional" program.
- Social Security for Informal Workers: Expand affordable social security options for informal workers to encourage formal job uptake.

## Mid-Term (2031–2040):

- **Microfinance and Training Programs:** Support informal workers with access to capital and skill development programs to transition into formal sectors.
- **Unified Labor Registry:** Develop a digital registry to track and integrate informal workers into formal systems.

# 3. Increase Female Workforce Participation

# Short-Term (2025-2030):

- Subsidized Child Care: Provide affordable childcare services to working mothers, inspired by Scandinavian models.
- Flexible Work Policies: Mandate flexible hours and remote work options to accommodate caregiving responsibilities.

#### Mid-Term (2031–2040):

- **Leadership Programs:** Promote women into leadership roles through mentorship and sponsorship initiatives.
- **Equal Pay Legislation:** Enforce transparency in pay practices and penalize gender-based wage gaps.



# 4. Create Jobs for Youth and Foster Entrepreneurship

# Short-Term (2025-2030):

- **Internship and Apprenticeship Programs:** Partner with industries to provide hands-on training for young professionals, as seen in Germany's dual education system.
- **Start-up Ecosystems:** Establish innovation hubs in cities like Monterrey and Guadalajara, offering seed funding and mentorship for young entrepreneurs.

## Mid-Term (2031-2040):

- **Tech Incubators:** Build tech incubators focusing on AI, robotics, and software development, following India's IT success.
- Educational Reforms: Align vocational and technical training with industry needs to ensure job readiness.

# 5. Regional Development and Job Creation

# Short-Term (2025-2030):

- Rural Agro-Industries: Create jobs in agro-processing, cold chain logistics, and food exports, modeled after India's National Rural Employment Guarantee Act.
- Tourism Infrastructure: Develop eco-tourism and heritage tourism projects in regions like Oaxaca and Chiapas.

#### Mid-Term (2031–2040):

- Manufacturing Clusters: Establish manufacturing hubs in underdeveloped regions, leveraging Mexico's nearshoring potential.
- Smart Villages: Develop rural areas with connectivity and essential infrastructure to attract businesses.



# 6. Build Future-Ready Jobs in High-Growth Sectors

#### **Green Industries:**

- **Short-Term (2025–2030):** Invest in renewable energy projects like solar and wind farms to generate green jobs.
- Mid-Term (2031–2040): Develop green construction technologies and sustainable materials industries.

## **Technology and Al:**

- Short-Term (2025–2030): Train workers in Al, IoT, and automation technologies.
- Long-Term (2041–2050): Establish Mexico as a global center for AI research and development.

# 7. Address Wage and Worker Protections

# Short-Term (2025-2030):

- Incremental Wage Growth: Continue annual minimum wage increases, ensuring they align with inflation and productivity gains.
- Strengthen Labor Laws: Enforce stringent anti-discrimination and worker protection laws.

## Mid-Term (2031-2040):

• **Universal Health Coverage:** Provide health benefits to all workers, irrespective of employment status.



# 8. Enhance Job Matching and Mobility

# Short-Term (2025–2030):

- **Digital Job Portals:** Launch Al-driven platforms to match job seekers with opportunities based on skills and preferences.
- **National Mobility Programs:** Provide subsidies for workers willing to relocate for better job opportunities.

## Mid-Term (2031-2040):

Cross-Border Mobility: Partner with neighboring countries for labor exchange programs.

# **Projected Outcomes**

#### **Economic Benefits:**

- 2030: Increase GDP growth by 2% annually through job formalization and sectoral diversification.
- 2040: Double Mexico's per capita income by creating high-paying jobs.
- 2050: Achieve full employment, with a thriving economy driven by high-value industries.

## **Social Benefits:**

- 2030: Integrate 5 million informal workers into formal employment.
- **2040:** Achieve gender parity in workforce participation.
- 2050: Eliminate poverty through equitable wage growth and job access.

By following this roadmap, Mexico can transform its labor market into a cornerstone of sustainable and inclusive economic growth.



# Mexico Development Programme (MDP): Special Economic Zones (SEZ)

As of 2024, Mexico has strategically implemented Special Economic Zones (SEZs) to stimulate economic growth, particularly in underdeveloped southern regions.

## **Establishment of SEZs:**

- Initial Zones (2017): In September 2017, Mexico established three SEZs in Puerto Chiapas, Coatzacoalcos, and Lázaro Cárdenas-La Unión, aiming to attract investment and create jobs in these areas.
  - **Investment Policy Hub**
- Expansion in Yucatán (2024): On June 28, 2024, the government introduced new tax incentives for two "Welfare Industrial Zones" in Progreso I and Mérida I, Yucatán. These incentives target sectors such as electronics, semiconductors, and automotive electromobility, offering benefits like a 100% income tax credit for the first three years and up to 90% for meeting employment targets.
   Investment Policy Hub

## Interoceanic Corridor of the Isthmus of Tehuantepec:

Development Poles (2023): The government initiated the Interoceanic Corridor project, establishing ten industrial parks, known as Development Poles for Welfare (PODEBIS), in the Isthmus of Tehuantepec. Each park spans approximately 300 hectares, offering tax incentives such as income tax exemptions for the first three years and significant reductions thereafter, contingent on job creation.
 Wikipedia

#### **Challenges:**

- Implementation Delays: Previous SEZ initiatives faced postponements, limiting their effectiveness in spurring regional development.
   Baker Institute
- **Regional Disparities:** Despite efforts, significant economic differences persist between northern and southern regions, necessitating more effective SEZ strategies.



In summary, Mexico's SEZs have evolved to address regional economic disparities, with recent initiatives focusing on high-potential sectors and strategic locations. However, challenges in implementation and regional inequality remain, requiring ongoing attention to maximize the benefits of SEZs.

# MDP Special Economic Zones (SEZ) Development Transformation Plan (2025–2050)

The goal is to transform Mexico's SEZs into global hubs for innovation, manufacturing, and trade, driving regional development and bridging economic disparities. By leveraging international best practices, this initiative will position Mexico's SEZs as engines of economic growth and job creation.

#### Work Plan and Breakdown

# 1. Establish Clear Targets and Benchmarks

- 2030: Fully operationalize and attract investment in existing SEZs, ensuring at least 75% utilization of their potential.
- **2040:** Create 15 new SEZs in underdeveloped regions, focusing on high-tech and green industries.
- **2050:** Position Mexico as a global leader in SEZ-driven economic development, with SEZs contributing 30% of GDP.



# 2. Optimize Existing SEZs

# Short-Term (2025–2030):

- Infrastructure Modernization: Upgrade road, rail, and port connectivity to existing SEZs, following the model of Shenzhen, China.
- **Incentivize Key Industries:** Focus on high-potential sectors like electronics, semiconductors, automotive electromobility, and renewable energy.
- One-Stop Services: Establish efficient administrative hubs within SEZs to streamline investment processes.

# Mid-Term (2031–2040):

- Integration with Global Supply Chains: Partner with multinational corporations to integrate Mexican SEZs into global production networks, leveraging nearshoring opportunities.
- Digital SEZ Management: Use blockchain and IoT to monitor and manage operations, ensuring transparency and efficiency.

# 3. Expand SEZ Footprint

## Short-Term (2025–2030):

- Pilot Programs in New Regions: Establish pilot SEZs in underdeveloped areas like Chiapas and Oaxaca, with a focus on local strengths (e.g., agro-processing, eco-tourism).
- **Public-Private Partnerships (PPPs):** Engage private investors to fund SEZ infrastructure and development.



## Mid-Term (2031–2040):

- **Green SEZs:** Develop eco-friendly zones powered by renewable energy, inspired by India's green SEZs.
- **Sectoral Focus:** Create specialized SEZs for industries like biotechnology, AI, and precision manufacturing.

## Long-Term (2041-2050):

• Nationwide SEZ Network: Build a connected network of SEZs to facilitate inter-regional trade and innovation.

# 4. Address Challenges in SEZ Implementation

# Implementation Delays:

- Create a central oversight body to coordinate SEZ projects, set deadlines, and ensure accountability.
- Use predictive analytics to identify and address potential bottlenecks in project execution.

## Regional Disparities:

- Provide tax incentives for companies hiring local workers and using local suppliers.
- Invest in vocational training programs to prepare the regional workforce for SEZ-related jobs.



# 5. Enhance Global Competitiveness

# Short-Term (2025-2030):

- **Trade Agreements:** Leverage existing agreements like USMCA to attract export-oriented industries.
- Global Marketing Campaigns: Promote Mexico's SEZs internationally as attractive investment destinations.

## Mid-Term (2031-2040):

 R&D Hubs: Establish research and development facilities within SEZs to encourage innovation and attract global talent.

# Long-Term (2041-2050):

 Innovation-Driven Economy: Transition SEZs into hubs for cutting-edge technology, fostering global competitiveness.

# 6. Focus on Sustainability

## Short-Term (2025-2030):

- **Carbon-Neutral Operations:** Incentivize green building certifications and renewable energy adoption within SEZs.
- Waste Management: Implement circular economy practices to reduce waste and promote recycling.



## Mid-Term (2031–2040):

- **Smart Energy Systems:** Use Al-driven energy management systems to optimize resource use.
- **Biodiversity Zones:** Incorporate biodiversity-friendly designs into SEZ layouts to minimize environmental impact.

# 7. Foster Inclusivity and Community Development

# Short-Term (2025-2030):

- Community Engagement: Involve local communities in SEZ planning and development to ensure inclusive growth.
- **SME Integration:** Provide incentives for small and medium enterprises to participate in SEZ ecosystems.

#### Mid-Term (2031–2040):

- **Skill Development Centers:** Establish training hubs in SEZ regions to equip local populations with necessary skills.
- **Affordable Housing:** Develop housing projects for SEZ workers to ensure sustainable urbanization.

# **Projected Outcomes**

#### **Economic Benefits:**

- 2030: Generate \$50 billion in annual exports from SEZs.
- **2040:** Create 5 million direct and indirect jobs through SEZ expansion.
- 2050: Establish SEZs as a major contributor to Mexico's GDP, fostering economic resilience.



#### **Social Benefits:**

- Reduce regional income disparities by integrating underdeveloped areas into the economic mainstream.
- Enhance the quality of life for local communities through infrastructure and job creation.

#### **Environmental Benefits:**

- Transition to low-carbon SEZs, aligning with global sustainability goals.
- Minimize land degradation and resource use through eco-friendly practices.

By implementing this comprehensive plan, Mexico can transform its SEZs into engines of regional and national development, setting a global benchmark for inclusive and sustainable economic zones.

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# Mexico Development Programme (MDP): Digitalization

As of 2024, Mexico has made significant strides in digitalization, yet faces challenges in achieving comprehensive digital transformation.

# **Internet Penetration and Usage:**

• Internet Users: Approximately 107.3 million Mexicans were internet users as of January 2024, representing 83.2% of the population. This marks a 6.6% increase from the previous year.

**Datareportal** 

 Unconnected Population: Despite growth, about 21.65 million people, or 16.8% of the population, remained offline at the start of 2024.
 Datareportal

# **Digital Economy:**

- **E-commerce Growth:** Mexico's e-commerce market is among the top five globally in growth, with 63 million consumers and a 23% annual increase as of 2022.

  Digital Policy Alert
- Digital Services Taxation: The government has enacted legislation taxing digital services and can block access to non-compliant international digital service providers.
   Trade.gov

## **Government Digitization Efforts:**

- National Digital Strategy: Mexico has implemented a national digital strategy, creating roles such as the National Digital Strategy Coordinator and launching the gob.mx portal to provide web and mobile access to public services.
   McKinsey & Company
- Open Data Initiatives: The country leads Latin America in open data, ranking high on the Open Data Barometer.
   McKinsey & Company



# **Challenges:**

• **Digital Divide:** Significant inequalities persist, with internet access reflecting broader societal disparities.

McKinsey & Company

• **Financial Inclusion:** Cash remains predominant, with 90% of the population using it regularly. Only 25% use mobile banking, and half lack bank accounts, hindering digital payment adoption.

El País

• Cybersecurity Concerns: Approximately 30% of internet users are concerned about online fraud, deterring e-commerce participation.

Trade.gov

# **Recent Developments:**

 Private Sector Investments: Microsoft announced a \$1.3 billion investment to enhance cloud computing and AI infrastructure, aiming to improve connectivity and AI adoption among small and medium-sized businesses.

Reuters

• **Fintech Expansion:** Companies like MercadoLibre's fintech arm, Mercado Pago, have seen rapid growth in mobile credit-card reader adoption, indicating progress in digital payment solutions.

Reuters

In summary, while Mexico has advanced in digitalization, challenges such as the digital divide, financial inclusion, and cybersecurity need to be addressed to fully realize the benefits of a digital economy.



# **MDP Digitalization Transformation Plan (2025–2050)**

The goal is to position Mexico as a global leader in digitalization by addressing the digital divide, fostering innovation in emerging technologies such as automation, blockchain, and big data, and building a digitally inclusive society. This plan integrates proven strategies from global leaders while tailoring solutions to Mexico's unique challenges.

## Work Plan and Breakdown

# 1. Establish Clear Targets and Benchmarks

- 2030: Ensure 95% internet coverage nationwide and integrate digital payment systems for 75% of the population.
- **2040:** Achieve full digital inclusion with robust cybersecurity frameworks and universal access to government services online.
- **2050:** Position Mexico as a global hub for automation, blockchain, and big data innovation.

# 2. Expand Digital Infrastructure

# Short-Term (2025-2030):

- **Nationwide Connectivity:** Expand high-speed internet access using satellite technology like SpaceX's Starlink, focusing on rural and underserved areas.
- **Public Wi-Fi:** Install free Wi-Fi hotspots in public spaces, schools, and healthcare centers, modeled after India's Digital Village initiative.

## Mid-Term (2031-2040):

• **5G Rollout:** Complete nationwide 5G deployment to support high-speed, low-latency connections essential for automation and IoT.



• **Smart Cities:** Pilot smart city projects in Mexico City, Monterrey, and Guadalajara, integrating IoT for efficient urban management.

# Long-Term (2041–2050):

 Quantum Communication Networks: Begin implementing quantum communication for ultra-secure digital data transmission.

## 3. Drive Financial Inclusion

# Short-Term (2025-2030):

- Digital Wallets: Partner with fintech companies to offer government-backed digital wallets for the unbanked population, inspired by India's Unified Payments Interface (UPI).
- **E-Commerce Integration:** Promote digital payment adoption by incentivizing small businesses to accept digital transactions.

## Mid-Term (2031-2040):

 Credit Access via Big Data: Use big data analytics to assess creditworthiness for underserved populations, fostering financial inclusion.

## Long-Term (2041-2050):

• **Blockchain-Based Financial Systems:** Implement blockchain for transparent, efficient, and fraud-resistant financial transactions.



# 4. Foster Innovation in Automation, Blockchain, and Big Data

#### **Automation:**

- **Short-Term (2025–2030):** Automate repetitive tasks in manufacturing and agriculture using robotics and IoT.
- **Mid-Term (2031–2040):** Expand automation to logistics, healthcare, and public services for efficiency.
- Long-Term (2041–2050): Establish fully autonomous supply chains and public services.

#### Blockchain:

- Short-Term (2025–2030): Use blockchain for land registries, supply chain tracking, and election integrity.
- Mid-Term (2031–2040): Expand blockchain to secure health records, educational certificates, and cross-border trade.
- Long-Term (2041–2050): Create a national blockchain network for seamless interaction across industries and government sectors.

## Big Data:

- **Short-Term (2025–2030):** Use big data to optimize traffic management and resource allocation in urban centers.
- Mid-Term (2031–2040): Leverage big data analytics to predict economic trends and disaster management.
- Long-Term (2041–2050): Establish Mexico as a global leader in big data analytics by fostering R&D and hosting data centers.

# 5. Strengthen Cybersecurity

## Short-Term (2025–2030):

 National Cybersecurity Strategy: Establish a centralized cybersecurity agency to monitor and respond to digital threats.



• Cyber Awareness Campaigns: Educate the public on safe online practices to reduce fraud and data theft.

## Mid-Term (2031–2040):

- Al-Powered Cybersecurity: Use Al for threat detection and response, modeled after Israel's advanced cybersecurity framework.
- **Data Protection Laws:** Implement strict data privacy regulations aligning with international standards like GDPR.

# Long-Term (2041–2050):

 Quantum Cryptography: Transition to quantum-resistant cryptographic systems to secure critical digital infrastructure.

# 6. Digitize Public Services

#### Short-Term (2025–2030):

- **e-Government Platform:** Expand gob.mx to include all essential government services with multilingual and mobile-friendly interfaces.
- Open Data Initiatives: Make more government data accessible to foster innovation and transparency.

## Mid-Term (2031-2040):

- **Digital Health Records:** Implement universal digital health records for efficient healthcare delivery.
- Al in Governance: Use Al to streamline administrative processes and decision-making.

## Long-Term (2041–2050):

 Blockchain Voting System: Ensure election integrity through blockchain-based voting systems.



# 7. Build a Future-Ready Workforce

# Short-Term (2025–2030):

- **Digital Literacy Programs:** Launch nationwide initiatives to teach basic digital skills, modeled after Estonia's e-Estonia program.
- **STEM Education:** Prioritize STEM subjects in schools and universities, focusing on coding, robotics, and AI.

## Mid-Term (2031-2040):

- **Upskilling Workers:** Provide training programs for workers to adapt to automation and advanced technologies.
- **Tech Incubators:** Create tech innovation hubs to nurture startups and entrepreneurs.

## Long-Term (2041–2050):

• **Global Talent Exchange:** Establish Mexico as a talent hub by attracting global tech professionals and fostering homegrown expertise.

## 8. Promote Innovation and Research

## Short-Term (2025-2030):

- R&D Funding: Increase investment in research and development, focusing on emerging technologies.
- **University Partnerships:** Collaborate with global institutions to bring advanced research to Mexico.

# Mid-Term (2031–2040):

 Al and Blockchain Centers: Establish dedicated centers for Al and blockchain research, modeled after Silicon Valley.



## Long-Term (2041–2050):

• **Global Innovation Hub:** Position Mexico as a top destination for innovation and technological breakthroughs.

# **Projected Outcomes**

#### **Economic Benefits:**

- 2030: Increase GDP contribution from the digital economy to 10%.
- 2040: Position Mexico as a top destination for tech investment in Latin America.
- 2050: Achieve global recognition as a leader in automation, blockchain, and big data.

# **Social Benefits:**

- Bridge the digital divide by ensuring universal internet access.
- Empower citizens with digital literacy and access to services.

## **Environmental Benefits:**

Reduce carbon emissions through smart city solutions and green technologies.

This comprehensive plan integrates proven global strategies with a forward-thinking approach to ensure Mexico's digital transformation by 2050.



# Mexico Development Programme (MDP): Social Reforms

As of November 2024, Mexico is undergoing significant social reforms aimed at restructuring governmental institutions and addressing long standing social challenges.

## **Institutional Restructuring:**

- Abolition of Autonomous Regulatory Agencies: The Mexican Senate approved
  constitutional changes to eliminate autonomous regulatory bodies, transferring their
  responsibilities to executive ministries. This includes agencies overseeing energy
  regulation, antitrust functions, telecommunications, and government transparency. The
  reform aims to streamline government functions and reduce public spending. However,
  critics express concerns about increased government control and reduced transparency.
  The Wall Street Journal
- Judicial Reforms: A new selection process for Supreme Court seats and federal judges
  has been introduced, allowing citizens to elect judges through a system that includes a
  final lottery to determine ballot candidates. This reform seeks to democratize the
  judiciary but has raised concerns about potential politicization and the influence of
  organized crime in judicial elections.

  AP News

#### Social Welfare Initiatives:

- Poverty Reduction: Between 2020 and 2022, Mexico's multidimensional poverty rate decreased from 43.9% to 36.3%, lifting approximately 8.8 million people out of poverty. Despite this progress, challenges persist in access to health and education services. World Bank
- Healthcare System Changes: The government has restructured public health insurance programs, notably replacing Seguro Popular with new initiatives aimed at expanding coverage. These changes have faced criticism regarding implementation and effectiveness.

**RAND** Corporation



# **Human Rights and Security:**

Military Involvement in Civil Affairs: The administration has increased the military's
role in various sectors, including public security and infrastructure projects. This
expansion has raised concerns about potential human rights violations and the
militarization of civilian functions.

#### Wikipedia

 Freedom of the Press: While the government has pledged to uphold press freedom, there have been instances of tension between the administration and media outlets, leading to concerns about censorship and journalist safety.
 Wikipedia

#### **Economic Policies:**

- Labor Market Reforms: Efforts have been made to reform labor policies to improve working conditions and reduce informality. However, challenges remain in effectively implementing these reforms across various sectors.
   OECD iLibrary
- Social Spending: The government has increased social program spending to mitigate
  the impact of economic downturns and promote inclusive growth. However, the
  effectiveness of these programs in reducing socioeconomic disparities is still under
  evaluation.

International Monetary Fund

In summary, Mexico's current social reform landscape is characterized by significant institutional changes, social welfare initiatives, and ongoing challenges in human rights and economic policies. The effectiveness and long-term impact of these reforms continue to be subjects of public debate and analysis.



# **MDP Social Reforms Transformation Plan (2025–2050)**

The goal is to create a socially inclusive, equitable, and just society by addressing systemic challenges such as poverty, inequality, access to healthcare, judicial transparency, and human rights. This plan draws inspiration from global leaders in social reform while tailoring solutions to Mexico's unique context.

## Work Plan and Breakdown

# 1. Establish Clear Targets and Benchmarks

- **2030:** Reduce multidimensional poverty to below 20% and ensure universal access to basic services such as healthcare, education, and clean water.
- 2040: Achieve gender parity and reduce income inequality (Gini coefficient) by 30%.
- **2050:** Establish Mexico as a global leader in social equity, with transparent governance and robust human rights protections.

# 2. Strengthen Poverty Reduction Initiatives

## Short-Term (2025-2030):

- **Conditional Cash Transfers:** Expand and modernize programs like Prospera, focusing on nutrition, education, and health for the poorest families.
- **Job-Oriented Welfare:** Link welfare programs to job training and skill development, modeled after South Korea's income-based training initiatives.

#### Mid-Term (2031–2040):

- Localized Development Plans: Empower municipalities to design poverty reduction strategies tailored to local needs.
- **Digital Inclusion:** Ensure access to digital tools for all citizens, enabling participation in the modern economy.



## Long-Term (2041–2050):

• Universal Basic Income (UBI): Gradually implement UBI, backed by taxation on high-wealth individuals and corporations.

# 3. Reform Healthcare and Education Systems

# Short-Term (2025-2030):

- Universal Healthcare Access: Expand healthcare coverage, inspired by Thailand's universal health care system.
- **Primary Education Access:** Guarantee free primary education with improved resources and teacher training.

# Mid-Term (2031–2040):

- Affordable Secondary and Higher Education: Develop scholarship programs and community colleges to increase access, modeled after Germany's vocational education system.
- Preventive Healthcare: Focus on preventive care and public health campaigns to reduce the burden on hospitals.

# Long-Term (2041–2050):

 World-Class Institutions: Establish Mexico as a hub for higher education and medical research.



# 4. Enhance Judicial Transparency and Governance

# Short-Term (2025–2030):

- Judicial Modernization: Digitize court systems to increase efficiency and reduce backlogs.
- **Community Policing:** Shift focus from military to community-led policing, following Norway's model.

## Mid-Term (2031-2040):

- Independent Judiciary: Strengthen judicial independence by insulating it from political influence.
- Anti-Corruption Bodies: Expand anti-corruption task forces with international oversight.

# Long-Term (2041–2050):

Global Leadership in Justice: Establish Mexico as a model for judicial transparency and fairness.

# 5. Promote Gender Equality and Social Inclusion

## Short-Term (2025–2030):

- **Empower Women in Workforce:** Implement equal pay legislation and provide childcare subsidies to increase female labor force participation.
- Indigenous Rights: Enhance legal and financial support for indigenous communities.

## Mid-Term (2031–2040):

- **Anti-Discrimination Laws:** Strengthen protections against discrimination based on gender, ethnicity, and religion.
- Representation in Governance: Mandate gender parity in all levels of government and public service.



# Long-Term (2041–2050):

• Global Equality Standards: Position Mexico as a leader in gender equity and inclusion.

# 6. Strengthen Human Rights Protections

# Short-Term (2025-2030):

- **Journalist Protection Programs:** Create safe reporting mechanisms and secure environments for journalists, modeled after Sweden's media laws.
- Human Rights Oversight: Establish independent bodies to monitor and address human rights violations.

#### Mid-Term (2031–2040):

- **Demilitarization of Civil Affairs:** Phase out military involvement in civilian governance and law enforcement.
- **Citizen Monitoring Systems:** Use blockchain to track human rights commitments and ensure accountability.

## Long-Term (2041–2050):

 Global Advocacy: Position Mexico as a global advocate for human rights and democratic governance.

# 7. Invest in Youth Development

## Short-Term (2025–2030):

- Youth Employment Programs: Create internships and apprenticeships, modeled after Germany's dual education system.
- Youth Empowerment Hubs: Establish centers for mentorship, counseling, and skill-building.



# Mid-Term (2031-2040):

- **Civic Engagement Education:** Introduce programs that teach youth about governance and active citizenship.
- Entrepreneurship Support: Provide grants and training for young entrepreneurs.

## Long-Term (2041–2050):

• Youth Leadership Networks: Cultivate a generation of globally connected, socially conscious leaders.

# 8. Implement Transparent Governance

# Short-Term (2025-2030):

- Open Government Platforms: Expand initiatives like gob.mx for real-time monitoring of government spending.
- Public Participation: Introduce participatory budgeting in municipalities.

#### Mid-Term (2031-2040):

- Blockchain Governance: Use blockchain for tracking government projects, reducing corruption.
- Citizen Feedback Loops: Develop platforms for continuous citizen input on policies.

## Long-Term (2041-2050):

• **Global Benchmark in Governance:** Become a global example of transparent, citizen-driven governance.



# **Projected Outcomes**

#### **Economic Benefits:**

- **2030**: Reduce poverty by 15% and increase GDP by integrating marginalized communities into the workforce.
- **2040**: Enhance global investor confidence through robust governance and reduced corruption.
- **2050:** Position Mexico as a global economic leader with a strong foundation in social equity.

#### **Social Benefits:**

- Eliminate systemic inequality and discrimination.
- Empower marginalized groups through targeted programs.

## **Human Rights and Justice Benefits:**

- Achieve global recognition for judicial transparency and human rights protections.
- Foster a peaceful, equitable society.

By embracing this comprehensive social reform plan, Mexico can address systemic challenges and set a global standard for inclusive growth, equity, and justice by 2050.



# Mexico Development Programme (MDP): Healthcare Reforms

As of November 2024, Mexico's healthcare system is undergoing significant reforms under President Claudia Sheinbaum's administration. These reforms aim to address longstanding challenges such as limited access to medical services, medication shortages, and disparities in healthcare quality.

## **Key Developments:**

- Strengthening Universal Healthcare: President Sheinbaum has committed to
  enhancing Mexico's universal health care system to ensure comprehensive access to
  essential services, including laboratory tests, surgeries, preventive care, vaccinations,
  and medications. The plan involves consolidating and expanding existing programs like
  IMSS-Bienestar to serve as the primary healthcare system nationwide.
   Global Health Intelligence
- Medication Accessibility: To combat persistent drug shortages, the administration
  plans to launch the "Pharmacies for Wellbeing" program in 2025. This initiative aims to
  establish pharmacies adjacent to Wellbeing Banks, providing free basic medications,
  particularly to vulnerable populations such as the elderly.
   Global Health Intelligence
- Healthcare Workforce Expansion: The government intends to hire additional medical professionals to improve service delivery. This includes the controversial decision to employ 2,700 Cuban doctors to address specialist shortages, a move that has faced opposition from domestic medical professionals and political rivals.
   Reuters
- Home-Based Medical Care: An ambitious plan has been introduced to provide home-based medical services to approximately 13.6 million elderly individuals and people with disabilities who receive government pensions. With an initial budget of 7 billion pesos for 2024, the program involves recruiting 21,500 healthcare workers to conduct bi-monthly home visits, aiming to alleviate pressure on overcrowded health centers.

El País



Digitalization of Healthcare Services: The administration is focusing on digitalizing the
healthcare system by implementing universal electronic medical records and
modernizing sector infrastructure. This effort seeks to enhance service quality, reduce
wait times, and ensure the availability of necessary equipment and supplies in clinics.
El País

## **Challenges:**

- Transition from Previous Programs: The dissolution of Seguro Popular in 2020 and its replacement with INSABI, followed by INSABI's merger into IMSS-Bienestar in 2023, have caused disruptions in service delivery and raised concerns about the continuity and effectiveness of healthcare coverage.
  - Wikipedia
- Resource Allocation: Despite a 5.8% increase in the 2024 health budget compared to 2023, previous years have seen significant cuts in health spending, leading to concerns about the feasibility of achieving universal healthcare goals.
   Mexico Business News
- Infrastructure and Personnel Shortages: The healthcare system faces challenges
  related to insufficient infrastructure and a shortage of medical professionals, particularly
  in rural and underserved areas. Efforts to address these issues, such as hiring foreign
  doctors, have met with both support and criticism.
  Reuters

In summary, Mexico is actively pursuing comprehensive healthcare reforms aimed at expanding access, improving service quality, and addressing systemic challenges. While these initiatives demonstrate a commitment to enhancing public health, their success will depend on effective implementation, adequate resource allocation, and the ability to navigate political and logistical obstacles.



# MDP Healthcare Reforms Transformation Plan (2025–2050)

The goal is to transform Mexico's healthcare system into a world-class, equitable, and accessible model that ensures universal coverage, high-quality care, and innovation in public health services. This plan leverages global best practices and addresses current challenges, including infrastructure gaps, personnel shortages, and systemic inefficiencies.

### Work Plan and Breakdown

## 1. Establish Clear Targets and Benchmarks

- **2030**: Achieve universal health care access with 95% population coverage and reduce wait times for critical medical services by 50%.
- 2040: Eliminate regional healthcare disparities by ensuring equal access to high-quality care across urban and rural areas.
- 2050: Establish Mexico as a global leader in digital health, research, and preventive care.

# 2. Expand Healthcare Access

- **Infrastructure Upgrades:** Build or upgrade 1,000 primary healthcare centers in rural and underserved areas, inspired by Cuba's localized healthcare model.
- **Mobile Clinics:** Deploy mobile health units to provide care in remote regions, similar to India's mobile healthcare initiatives.



- Regional Specialty Hospitals: Develop regional specialty hospitals for advanced care, reducing the need for long-distance travel.
- **Incentivize Rural Service:** Offer financial incentives and career advancement opportunities to healthcare professionals working in rural areas.

#### Long-Term (2041-2050):

• Integrated Healthcare Networks: Establish interconnected regional healthcare hubs to ensure seamless care coordination.

# 3. Strengthen the Healthcare Workforce

## Short-Term (2025-2030):

- **Training Programs:** Launch accelerated training programs for nurses, technicians, and paramedics to address immediate workforce shortages.
- Recruitment Drives: Recruit international specialists to fill gaps in high-demand areas while upskilling local talent.

#### Mid-Term (2031-2040):

- Medical Education Reform: Increase the number of medical schools and scholarships, focusing on underserved regions.
- **Continuous Education:** Mandate periodic training for all healthcare workers to keep up with global medical advancements.

#### Long-Term (2041-2050):

• **Global Talent Hub:** Position Mexico as a top destination for medical professionals through competitive salaries and research opportunities.



# 4. Improve Healthcare Financing

## Short-Term (2025-2030):

- Increase Budget Allocation: Raise healthcare spending to at least 8% of GDP, aligning with OECD averages.
- Public-Private Partnerships (PPPs): Partner with private sector firms to co-fund infrastructure projects and service delivery.

#### Mid-Term (2031-2040):

- **Health Insurance Expansion:** Introduce universal insurance coverage, modeled after Germany's dual health insurance system.
- Sliding-Scale Premiums: Implement sliding-scale contributions based on income to ensure affordability.

#### Long-Term (2041-2050):

• Sustainable Funding Mechanisms: Establish a national health fund supported by taxes on high-value goods and services.

# 5. Digital Transformation of Healthcare

#### Short-Term (2025–2030):

- Electronic Health Records (EHR): Implement a nationwide EHR system for efficient and secure patient data management.
- **Telemedicine Services:** Expand telehealth platforms to increase access, particularly in rural areas.

#### Mid-Term (2031–2040):

• **Al-Driven Diagnostics:** Use Al for early diagnosis of diseases and personalized treatment plans, inspired by innovations in the UK's NHS.



• **Blockchain for Records:** Use blockchain to secure patient data and streamline insurance claims.

## Long-Term (2041–2050):

• **Digital Health Ecosystem:** Fully integrate AI, IoT, and wearable devices into healthcare delivery systems for predictive and preventive care.

#### 6. Focus on Preventive Healthcare

## Short-Term (2025-2030):

- Public Health Campaigns: Launch nationwide campaigns on nutrition, mental health, and chronic disease prevention, modeled after Japan's community health initiatives.
- Immunization Drives: Ensure 100% vaccination coverage for preventable diseases.

#### Mid-Term (2031–2040):

- Community Health Workers: Train community health workers to provide preventive care and education in underserved areas.
- **Screening Programs:** Establish regular screening programs for common diseases such as diabetes, hypertension, and cancer.

#### Long-Term (2041-2050):

• **Health Equity Framework:** Achieve equity in health outcomes through robust preventive care systems.



# 7. Promote Research and Innovation

## Short-Term (2025–2030):

- **R&D Centers:** Establish research centers for tropical diseases, biotechnology, and pharmaceuticals, modeled after Brazil's Fiocruz Institute.
- Academic Partnerships: Collaborate with international universities to advance medical research.

# Mid-Term (2031–2040):

- Innovation Grants: Provide grants for healthcare startups focusing on AI, robotics, and wearable technology.
- Clinical Trials Hub: Position Mexico as a global hub for clinical trials.

## Long-Term (2041–2050):

 Global Medical Leadership: Become a leader in medical innovation, exporting knowledge and technology to other countries.

# 8. Address Systemic Inequalities

- **Equitable Resource Allocation:** Distribute healthcare resources based on regional needs, prioritizing marginalized areas.
- **Indigenous Healthcare Programs:** Develop culturally sensitive healthcare programs for indigenous populations.



- Urban-Rural Balance: Ensure equal access to advanced medical facilities across all regions.
- **Subsidized Services**: Provide free or heavily subsidized care for vulnerable populations.

#### Long-Term (2041-2050):

 Universal Equity: Achieve parity in health outcomes across all demographics and regions.

# **Projected Outcomes**

#### **Economic Benefits:**

- 2030: Increase workforce productivity by 10% through improved health outcomes.
- **2040:** Reduce out-of-pocket healthcare expenses for households by 50%.
- **2050**: Position healthcare as a significant contributor to GDP growth through medical tourism and innovation.

#### **Social Benefits:**

- Ensure universal access to quality healthcare, enhancing life expectancy and well-being.
- Eliminate disparities in healthcare access and outcomes.

#### **Global Recognition:**

Establish Mexico as a global leader in equitable and innovative healthcare systems.

This comprehensive plan integrates proven strategies and forward-thinking solutions to create a robust, equitable, and sustainable healthcare system in Mexico by 2050.



# Mexico Development Programme (MDP): Environment Sustainability

As of November 2024, Mexico faces significant environmental sustainability challenges, including deforestation, water scarcity, and a heavy reliance on fossil fuels. However, recent policy shifts indicate a renewed commitment to addressing these issues.

## **Environmental Challenges:**

- Deforestation: The expansion of agriculture, particularly avocado farming, has led to illegal logging and environmental degradation in regions like Michoacán. This not only threatens biodiversity but also contributes to soil erosion and water scarcity.
   Reuters
- Water Scarcity: Urban areas, notably Mexico City, are experiencing severe water shortages due to over-extraction of aquifers, infrastructure inefficiencies, and climate change impacts. Some neighborhoods face prolonged periods without reliable water access.

The Times

 Fossil Fuel Dependence: Mexico's energy sector has historically prioritized fossil fuels, with policies favoring oil and gas over renewable energy sources. This approach has hindered progress toward reducing greenhouse gas emissions.
 Climate Action Tracker

#### Policy Developments:

- Nationally Determined Contributions (NDCs): In December 2022, Mexico updated its NDCs under the Paris Agreement, aiming to reduce greenhouse gas emissions by 35% and black carbon emissions by 51% by 2030. The plan also includes achieving net-zero deforestation by 2030 and promoting sustainable food production systems.
   USAID
- Renewable Energy Initiatives: President Claudia Sheinbaum, inaugurated in October 2024, has pledged to transition Mexico toward renewable energy, targeting 45% of electricity production from renewable sources by 2030. This marks a significant shift from previous administrations' focus on fossil fuels.
   AP News



 International Commitments: At COP27, Mexico reaffirmed its dedication to limiting global warming to 1.5 degrees Celsius and achieving net-zero greenhouse gas emissions by 2050, in collaboration with the United States.
 U.S. Embassy in Mexico

#### **Current Status:**

 Global Sustainability Ranking: Mexico was ranked 49th in the Global Sustainability Index as of June 2020, reflecting the need for more robust environmental policies and actions.

Earth.org

 Public Concern: Surveys indicate that 92% of Mexican citizens are concerned about human-caused climate change, highlighting strong public support for environmental initiatives.

Yale Climate Connections

In summary, while Mexico confronts considerable environmental sustainability challenges, recent policy commitments and public awareness suggest a potential for meaningful progress toward a more sustainable future.

# MDP Environmental Sustainability Transformation Plan (2025–2050)

The goal is to transform Mexico into a global leader in environmental sustainability by addressing deforestation, water scarcity, and carbon emissions while fostering innovation in renewable energy and sustainable practices. This plan incorporates proven global strategies and leverages Mexico's unique natural resources to achieve long-term ecological and economic stability.



## Work Plan and Breakdown

#### 1. Establish Clear Targets and Benchmarks

- **2030:** Achieve 45% renewable energy in electricity production, net-zero deforestation, and a 35% reduction in greenhouse gas emissions.
- **2040:** Ensure sustainable water resource management and reforest 50% of degraded areas.
- **2050:** Achieve carbon neutrality, restore biodiversity, and establish Mexico as a global model for environmental sustainability.

#### 2. Combat Deforestation and Promote Reforestation

#### Short-Term (2025-2030):

- Anti-Deforestation Laws: Enforce stricter penalties for illegal logging and provide incentives for sustainable farming practices, inspired by Brazil's Amazon protection initiatives.
- Reforestation Projects: Launch a nationwide reforestation campaign, planting 2 billion trees in degraded areas, modeled after India's Green India Program.

#### Mid-Term (2031-2040):

- **Community Forest Management:** Empower local communities to manage forests sustainably, creating jobs and reducing illegal activities.
- **Agroforestry Systems:** Integrate forestry and agriculture to balance ecological preservation and productivity.

## Long-Term (2041–2050):

• **Forest Carbon Markets:** Develop carbon credit markets to incentivize reforestation and conservation, similar to Costa Rica's carbon market model.



# 3. Address Water Scarcity

## Short-Term (2025–2030):

- Rainwater Harvesting: Mandate rainwater harvesting systems in urban areas, inspired by initiatives in Cape Town, South Africa.
- Water Infrastructure Modernization: Upgrade water distribution systems to reduce losses, particularly in Mexico City, where inefficiencies are high.

#### Mid-Term (2031-2040):

- **Desalination Plants:** Build desalination plants in coastal regions to ensure water availability during droughts, modeled after Israel's water management strategies.
- Integrated Water Management: Implement watershed management programs to balance agricultural, industrial, and domestic water needs.

#### Long-Term (2041-2050):

 Smart Water Systems: Use IoT and AI to optimize water usage and detect leaks in real-time.

# 4. Transition to Renewable Energy

- **Solar and Wind Farms:** Develop large-scale solar and wind energy projects, leveraging Mexico's natural resources in high-potential regions like Sonora and Oaxaca.
- Renewable Energy Incentives: Offer tax breaks and subsidies for businesses adopting renewable energy, inspired by Germany's Energiewende policy.



- Offshore Wind Energy: Invest in offshore wind farms along the Gulf of Mexico.
- **Decentralized Energy Systems:** Promote rooftop solar panels and community wind projects for energy independence in rural areas.

#### Long-Term (2041–2050):

• **Energy Storage**: Build large-scale energy storage systems to ensure stability and reliability of renewable energy grids.

#### 5. Reduce Carbon Emissions

#### Short-Term (2025–2030):

- **Green Transportation:** Expand electric vehicle infrastructure and transition public transport fleets to electric or hybrid systems, modeled after Norway's EV policies.
- Industrial Decarbonization: Incentivize industries to adopt low-carbon technologies.

#### Mid-Term (2031-2040):

- Carbon Pricing: Introduce carbon taxes or cap-and-trade systems to encourage businesses to lower emissions.
- **Green Buildings:** Mandate energy-efficient building standards in urban areas.

#### Long-Term (2041-2050):

• Carbon Capture: Invest in carbon capture and storage technologies to offset unavoidable emissions.



# 6. Preserve Biodiversity and Promote Eco-Tourism

## Short-Term (2025–2030):

- Protected Areas: Expand protected areas and wildlife corridors, drawing from Kenya's conservation models.
- **Eco-Tourism Programs:** Develop eco-tourism in regions like Chiapas and the Yucatan Peninsula to balance conservation and economic growth.

#### Mid-Term (2031-2040):

- Endangered Species Programs: Launch breeding and habitat restoration programs for endangered species.
- Marine Conservation: Establish marine protected zones to safeguard biodiversity along Mexico's coastlines.

#### Long-Term (2041–2050):

 Global Biodiversity Hub: Position Mexico as a leader in biodiversity research and conservation.

# 7. Strengthen Environmental Governance

- **Environmental Courts:** Establish specialized courts to handle environmental violations efficiently.
- **Citizen Monitoring:** Develop platforms for citizens to report environmental violations, inspired by India's Swachh Bharat Abhiyan initiative.



- **Transparent Policies:** Use blockchain to track and report on environmental initiatives and resource allocations.
- **Public Participation:** Involve communities in policymaking and project implementation to ensure inclusivity.

# 8. Foster Sustainability Education and Awareness

# Short-Term (2025-2030):

- **School Programs:** Integrate environmental education into school curriculums to build awareness among future generations.
- Public Campaigns: Launch nationwide campaigns on recycling, water conservation, and energy efficiency.

#### Mid-Term (2031–2040):

• Workforce Training: Train workers in green technologies and sustainable practices.

#### Long-Term (2041–2050):

 Global Leadership in Environmental Education: Establish Mexico as a global leader in sustainability education and training.



# **Projected Outcomes**

#### **Environmental Benefits:**

- 2030: Reduce deforestation to zero and increase renewable energy usage to 45%.
- **2040:** Restore 50% of degraded ecosystems and achieve sustainable water management.
- 2050: Achieve carbon neutrality and preserve biodiversity.

#### **Economic Benefits:**

- Increase GDP by fostering green industries like renewable energy and eco-tourism.
- Create 2 million jobs in sustainable sectors.

#### **Social Benefits:**

- Ensure access to clean water, energy, and a healthier environment for all citizens.
- Foster a culture of environmental responsibility and awareness.

This plan addresses Mexico's pressing environmental challenges and positions the country as a global leader in sustainability by 2050.

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# Mexico Development Programme (MDP): Education Innovation

As of November 2024, Mexico's education system faces significant challenges, including low enrollment rates in higher education, disparities in educational quality, and a shortage of professionals in science, technology, engineering, and mathematics (STEM) fields. These issues are compounded by socio-economic inequalities and regional disparities, particularly affecting the southern regions of the country.

# **Key Challenges:**

• Low Higher Education Enrollment: Only about 37-38% of the population has access to higher education, which is significantly lower than in more developed countries where access ranges from 60% to 80%.

Minerva Project

• Educational Backlog: As of 2022, approximately 25.1 million individuals lack basic education qualifications, up from 22.3 million in 2016, indicating a growing educational deficit.

Mexico Business News

 STEM Workforce Shortage: Despite a growing demand for STEM professionals, only a small fraction of the youth population attains higher education, leading to a scarcity of qualified personnel in critical sectors.

El País

Impact of the Pandemic: The COVID-19 pandemic exacerbated existing inequalities, with only about 60% of students able to follow remote classes via television or radio, highlighting technological and economic disparities.
 MIT News

#### **Recent Developments:**

Policy Reforms: The administration of President Andrés Manuel López Obrador implemented strategies focusing on improving access, quality, and equity in the national education system. However, these reforms have faced criticism for potentially reversing progress made by previous educational evaluations and accountability measures.
 Opportunities Insight
 Baker Institute



- Innovative Initiatives: Programs like the Red de Innovación y Aprendizaje (RIA) have been established to offer underserved communities access to technology and quality education, aiming to bridge the digital divide.
   Wikipedia
- Focus on STEM Education: There has been an increase in graduates from STEM fields, with over 175,000 students specializing in these disciplines in recent years. However, this number remains insufficient to meet the growing demand in sectors such as renewable energy and information technology.
   El País

#### **Regional Disparities:**

 Southern Mexico: Educational outcomes lag significantly in the southern regions, necessitating targeted policies to elevate the quality and accessibility of education. Baker Institute

#### Conclusion:

Mexico's education system is at a critical juncture, requiring comprehensive reforms to enhance access, quality, and equity. Addressing these challenges is essential for the country's economic growth and competitiveness, particularly in meeting the demands of a rapidly evolving global economy.

# **MDP Education Innovation Transformation Plan (2025–2050)**

The goal is to transform Mexico's education system into a world-class model that addresses systemic challenges, fosters innovation, and equips the workforce for the demands of the 21st century. The plan focuses on improving access, quality, equity, and relevance, with special emphasis on STEM, digital learning, and regional disparities.



#### Work Plan and Breakdown

## 1. Establish Clear Targets and Benchmarks

- **2030:** Increase higher education enrollment to 60% and halve the basic education backlog.
- **2040:** Ensure universal access to quality education at all levels, with a focus on STEM and vocational training.
- **2050:** Establish Mexico as a global leader in educational innovation, contributing to economic and technological advancements.

# 2. Expand Access to Quality Education

#### Short-Term (2025-2030):

- **Build Infrastructure:** Construct 5,000 new schools and upgrade existing facilities, particularly in underserved areas, inspired by China's rural education expansion.
- Free Education Materials: Provide free digital and physical textbooks to eliminate cost barriers for low-income families.

#### Mid-Term (2031-2040):

- **Targeted Scholarships:** Offer full scholarships for students in marginalized communities, modeled after India's national scholarship programs.
- Community Learning Centers: Establish multipurpose learning hubs in rural areas, providing access to technology and resources.

#### Long-Term (2041-2050):

 Mobile Education Units: Use technology-equipped mobile units to deliver education in remote areas.



# 3. Emphasize STEM Education

## Short-Term (2025–2030):

- **STEM Curricula in Schools:** Integrate STEM subjects into primary and secondary education, modeled after Singapore's STEM programs.
- **Teacher Training:** Launch intensive training programs for educators in STEM fields, ensuring quality instruction.

## Mid-Term (2031-2040):

- STEM High Schools: Create specialized STEM high schools in every state to nurture talent in critical fields.
- Industry Partnerships: Collaborate with global tech companies for internships and mentorship programs.

#### Long-Term (2041-2050):

• **Global STEM Leadership:** Position Mexico as a hub for STEM education and innovation, attracting international students and researchers.

# 4. Foster Digital and Innovative Learning

- **Digital Learning Platforms:** Roll out free online learning platforms, inspired by India's DIKSHA initiative, to provide interactive courses for all students.
- **Classroom Technology:** Equip classrooms with digital tools, including tablets, projectors, and high-speed internet.



- **Blended Learning Models:** Develop hybrid education systems combining in-person and digital learning for flexibility and resilience.
- Coding in Schools: Mandate coding and digital literacy as core subjects in all schools.

#### Long-Term (2041–2050):

• Al-Powered Education: Use Al to deliver personalized learning experiences tailored to individual student needs.

# 5. Reduce Regional and Socioeconomic Disparities

#### Short-Term (2025–2030):

- **Subsidized Education:** Offer free primary and secondary education in underserved regions, with a focus on southern Mexico.
- Local Language Education: Develop curricula in indigenous languages to promote inclusivity.

#### Mid-Term (2031–2040):

- **Regional Investment:** Establish state-of-the-art universities and research centers in underserved areas, modeled after Germany's regional university expansion.
- **Community Involvement:** Encourage local communities to participate in school management and governance.

#### Long-Term (2041–2050):

• **Universal Quality Standards:** Ensure that all schools, regardless of location, meet global quality benchmarks.



# 6. Enhance Vocational and Technical Training

## Short-Term (2025-2030):

- **Vocational Schools:** Develop vocational training programs aligned with industry needs, inspired by Germany's dual education system.
- Apprenticeship Programs: Partner with local businesses to create apprenticeship opportunities.

#### Mid-Term (2031-2040):

- Reskilling Initiatives: Launch large-scale programs to reskill workers for emerging industries such as renewable energy and technology.
- Entrepreneurship Training: Provide entrepreneurship education to empower students to start their own businesses.

#### Long-Term (2041-2050):

• **Global Vocational Leadership:** Position Mexico as a leader in vocational and technical training, exporting its models to other countries.

# 7. Build a Future-Ready Workforce

#### Short-Term (2025–2030):

- **Teacher Recruitment:** Hire and train 100,000 new educators with a focus on underserved areas.
- Competency-Based Education: Shift the focus from rote learning to critical thinking and problem-solving skills.

#### Mid-Term (2031–2040):

• **Global Partnerships:** Collaborate with international institutions to bring advanced teaching methodologies to Mexico.



• **Inclusion Programs:** Develop specialized programs for students with disabilities, ensuring equitable education.

## Long-Term (2041–2050):

• **Educational Leadership:** Cultivate globally recognized educators and policymakers to drive innovation in education.

# 8. Promote Research and Development

# Short-Term (2025-2030):

- Research Grants: Provide funding for academic research in STEM and social sciences.
- Innovation Hubs: Establish innovation centers in universities to encourage research and collaboration.

## Mid-Term (2031–2040):

- Global Collaboration: Foster partnerships with leading universities and research institutions worldwide.
- Patents and Startups: Encourage the commercialization of research through patents and tech startups.

#### Long-Term (2041-2050):

• **Global R&D Leader:** Establish Mexico as a global leader in educational and technological research.



# **Projected Outcomes**

#### **Educational Benefits:**

- 2030: Increase higher education enrollment to 60%.
- 2040: Universal access to quality primary and secondary education.
- 2050: Position Mexico as a top destination for international students and researchers.

#### **Economic Benefits:**

- Create a workforce equipped for high-tech industries, boosting GDP.
- Reduce unemployment through vocational training and entrepreneurship.

#### **Social Benefits:**

- Bridge regional and socioeconomic gaps in education.
- Foster a culture of innovation and lifelong learning.

This transformative education plan addresses Mexico's challenges while leveraging global best practices to create a world-class education system by 2050.



# Mexico Development Programme (MDP): Water Resource Management

As of November 2024, Mexico faces significant challenges in water resource management, including scarcity, pollution, and infrastructure deficiencies. These issues are exacerbated by climate change, population growth, and uneven distribution of water resources across the country.

## **Key Challenges:**

 Water Scarcity: Approximately 85% of Mexico is experiencing drought conditions, with some regions facing the most severe drought in over a decade. This has led to reduced water levels in reservoirs and rivers, adversely affecting agriculture and daily water supply.

**Business Insider** 

- Pollution: Industrial discharge, untreated sewage, and agricultural runoff have significantly degraded water quality in many areas. The economic cost of water pollution in Mexico is estimated at US\$6 billion per year.
   Wikipedia
- Infrastructure Deficiencies: Aging and inefficient water infrastructure results in substantial water losses. For instance, Mexico City's water system loses over 40% of its supply through leakages.

**The Times** 

 Overexploitation of Aquifers: Groundwater accounts for 64% of public water supply, leading to overexploitation in arid regions and causing land subsidence and water quality deterioration.

Wikipedia

#### **Recent Developments:**

National Water Program (2020–2024): The Mexican government implemented this
program to enhance water security and equitable access, focusing on infrastructure
investment and sustainable management practices.
 SDGs



- International Agreements: Mexico and the United States have reached agreements to address water-sharing issues in the Rio Grande basin, aiming for better coordination in conservation and resource management.
  - **AP News**
- Policy Initiatives: President Claudia Sheinbaum's administration has launched the National Water Plan, emphasizing infrastructure development in the north, revising water concessions, and focusing on justice and access to water.
   El País

## **Regional Disparities:**

North vs. South: The northern and central regions, where 77% of the population resides
and 85% of GDP is generated, have access to only 32% of the country's renewable
water resources. In contrast, the southern regions have abundant water resources but
face challenges in infrastructure and management.
Wikipedia

#### Conclusion:

Mexico's water resource management is at a critical juncture, requiring comprehensive reforms and investments to ensure sustainable and equitable water access. Addressing these challenges is vital for the country's socio-economic development and environmental sustainability.

# **MDP Water Resource Management Transformation Plan (2025–2050)**

The goal is to ensure sustainable, equitable, and efficient management of Mexico's water resources by addressing scarcity, pollution, infrastructure inefficiencies, and regional disparities. This plan integrates global best practices and innovative solutions to create a resilient water management system.



#### Work Plan and Breakdown

## 1. Establish Clear Targets and Benchmarks

- 2030: Reduce water losses to 20% nationwide and ensure 80% wastewater treatment.
- 2040: Achieve universal access to clean and reliable water supply, with balanced water resource distribution across regions.
- **2050**: Establish Mexico as a global leader in sustainable water management, achieving water security for all sectors.

# 2. Address Water Scarcity

## Short-Term (2025-2030):

- Rainwater Harvesting: Mandate rainwater harvesting systems in urban and rural areas, modeled after India's rainwater harvesting programs.
- Efficient Agriculture Practices: Promote drip irrigation and water-efficient farming methods, inspired by Israel's water management practices.
- Drought Contingency Plans: Develop early warning systems and contingency plans for drought-prone regions.

#### Mid-Term (2031-2040):

- **Desalination Plants:** Establish desalination plants in coastal regions to increase water availability, following Saudi Arabia's model.
- **Regional Water Transfers:** Create infrastructure for inter-basin water transfers to redistribute resources from water-rich southern regions to arid northern areas.

#### Long-Term (2041-2050):

• Aquifer Recharge: Develop aquifer recharge systems to replenish groundwater reserves, inspired by Australia's managed aquifer recharge programs.



#### 3. Modernize Water Infrastructure

## Short-Term (2025-2030):

- Leakage Reduction: Invest in the modernization of water distribution systems, aiming to reduce losses in cities like Mexico City.
- **Smart Meters:** Install IoT-enabled smart meters to monitor usage and detect inefficiencies in real-time.

#### Mid-Term (2031-2040):

- **Decentralized Water Systems:** Implement decentralized water treatment and distribution systems for rural and peri-urban areas.
- **Urban Reservoirs:** Develop urban reservoirs to store rainwater and manage supply during dry periods.

#### Long-Term (2041-2050):

• Comprehensive Water Grids: Create interconnected water grids to enhance resource sharing and reduce dependency on single sources.

# 4. Improve Water Quality and Reduce Pollution

- **Wastewater Treatment Plants:** Build 1,000 new treatment plants nationwide to achieve 80% wastewater treatment, modeled after Singapore's NEWater initiative.
- **Pollution Controls:** Enforce strict regulations on industrial discharge and agricultural runoff, ensuring compliance through real-time monitoring systems.



- Recycling Programs: Develop programs for water reuse in industrial and agricultural sectors.
- River Clean-Up Projects: Launch large-scale initiatives to clean polluted rivers, inspired by India's Ganga Action Plan.

#### Long-Term (2041-2050):

 Closed-Loop Systems: Transition industries and urban areas to closed-loop water systems, minimizing waste and maximizing reuse.

# 5. Bridge Regional Disparities

## Short-Term (2025-2030):

- Rural Water Access: Ensure basic water supply in underserved rural areas through localized treatment plants and community-driven management.
- **Equitable Pricing:** Implement tiered water pricing to ensure affordability for low-income households while promoting conservation among high users.

#### Mid-Term (2031-2040):

- **Infrastructure Investment:** Allocate dedicated funds for water infrastructure in northern and central regions, addressing regional disparities.
- **Community-Based Management:** Empower local communities to manage and maintain water resources, modeled after successful programs in Bolivia.

#### Long-Term (2041-2050):

• **Integrated Regional Frameworks:** Develop integrated regional frameworks to balance water availability and usage across all parts of the country.



# 6. Strengthen Governance and Policy Frameworks

## Short-Term (2025–2030):

- National Water Authority: Establish a centralized authority to coordinate water management efforts across states.
- **Data Transparency:** Use blockchain for tracking water usage, allocation, and funding to ensure transparency.

#### Mid-Term (2031-2040):

- Water Rights Reforms: Revise water rights to prioritize essential uses and sustainability over commercial exploitation.
- Public Awareness Campaigns: Educate citizens about water conservation through nationwide campaigns, inspired by Australia's "Water for Life" program.

#### Long-Term (2041-2050):

• **Global Partnerships:** Collaborate with international organizations to adopt cutting-edge technologies and policies.

#### 7. Focus on Climate Resilience

- **Flood Management Systems:** Develop urban flood management systems, inspired by the Netherlands' approach to water infrastructure.
- **Ecosystem Restoration:** Protect wetlands and forests to enhance natural water filtration and storage.



- Climate-Resilient Agriculture: Promote crop varieties that require less water and are resilient to changing climate conditions.
- **Disaster Preparedness:** Implement systems to handle water-related disasters like floods and droughts.

#### Long-Term (2041-2050):

• Carbon-Water Nexus: Integrate carbon and water management strategies to achieve environmental sustainability.

# **Projected Outcomes**

#### **Environmental Benefits:**

- 2030: Reduce water losses to 20% and treat 80% of wastewater.
- 2040: Restore major rivers and aquifers, achieving sustainable water use nationwide.
- **2050:** Establish a fully sustainable water management system, ensuring long-term ecological balance.

#### **Economic Benefits:**

- Increase agricultural productivity by 30% through efficient water usage.
- Attract foreign investment in water technology and infrastructure projects.

#### **Social Benefits:**

- Ensure universal access to clean water, improving public health and quality of life.
- Eliminate regional disparities, fostering equitable development.

This comprehensive plan addresses Mexico's pressing water challenges while leveraging global best practices to secure a sustainable water future by 2050.



# Mexico Development Programme (MDP): Public Accountability & Transparency

As of November 2024, Mexico is experiencing significant shifts in public accountability and transparency, marked by the elimination of several autonomous regulatory and oversight agencies. This move has raised concerns about the consolidation of power and potential reductions in governmental transparency.

## **Key Developments:**

 Elimination of Autonomous Agencies: The Mexican Senate approved constitutional changes to dissolve seven independent bodies, including the National Institute for Information Access (INAI), the Federal Telecommunications Institute (IFT), and the Federal Economic Competition Commission (Cofece). Their functions are being transferred to various government ministries. Proponents argue this will streamline operations and reduce costs, while critics fear it may lead to decreased transparency and increased governmental control.

**AP News** 

 Judicial Reforms: Recent constitutional amendments have restructured the judiciary, introducing the election of judges and reducing the number of Supreme Court justices. This has sparked debates about judicial independence and the potential politicization of the judiciary.

**Wikipedia** 

#### Implications:

- Transparency Concerns: The dissolution of INAI, responsible for handling public information requests, has raised alarms about diminished public access to government information and weakened data protection.
  - Wilson Center
- Economic Impact: The elimination of regulatory bodies like Cofece and IFT has created uncertainty among investors, particularly in sectors such as energy and telecommunications, due to potential reductions in market oversight and fair competition. <u>The Wall Street Journal</u>



 Democratic Stability: These reforms have prompted discussions about the balance of power and the health of Mexico's democratic institutions, with concerns that centralizing authority could undermine checks and balances.
 Reuters

#### **International Perspective:**

Organizations such as ARTICLE 19 have criticized these actions, stating that dismantling transparency institutions threatens democracy by limiting citizens' ability to hold the government accountable.

#### Article 19

#### Conclusion:

Mexico's current trajectory in public accountability and transparency is contentious, with significant reforms prompting debates about their long-term effects on governance, economic stability, and democratic integrity.

# MDP Public Accountability & Transparency Transformation Plan (2025–2050)

The goal is to build a robust framework for public accountability and transparency that ensures government integrity, fosters trust, and strengthens democratic institutions. By leveraging best practices from global leaders, Mexico can address its current challenges and set a benchmark for transparent governance.



#### Work Plan and Breakdown

#### 1. Establish Clear Targets and Benchmarks

- **2030:** Re-establish independent oversight bodies and ensure full public access to government information.
- 2040: Institutionalize digital transparency systems across all levels of government.
- **2050:** Achieve global recognition as a leader in transparency and accountability, with zero tolerance for corruption.

# 2. Restore and Strengthen Oversight Institutions

## Short-Term (2025-2030):

- Reinstate Independent Agencies: Reinstate and empower dissolved institutions like INAI and Cofece, ensuring their operational and financial independence.
- Strengthen Legal Frameworks: Codify the independence of oversight institutions in the constitution to safeguard them from political interference, modeled after the European Ombudsman framework.

#### Mid-Term (2031–2040):

- **Collaborative Oversight:** Establish partnerships between government institutions and civil society organizations to enhance monitoring and accountability.
- Whistleblower Protections: Strengthen legal protections for whistleblowers to encourage reporting of corruption and misconduct.

## Long-Term (2041-2050):

• **Global Collaboration:** Position Mexico as a hub for international transparency initiatives and partnerships, fostering cross-border accountability standards.



# 3. Leverage Technology for Transparency

## Short-Term (2025–2030):

- Blockchain for Public Records: Implement blockchain technology to manage public procurement, ensuring immutability and transparency in transactions, inspired by Estonia's blockchain initiatives.
- **E-Governance Platforms:** Expand digital platforms like gob.mx to include real-time tracking of public funds and projects.

## Mid-Term (2031-2040):

- Al for Fraud Detection: Deploy Al to analyze government transactions and detect patterns of corruption or inefficiency, similar to Singapore's digital governance models.
- Open Data Initiatives: Mandate the publication of all non-sensitive government data, fostering public and academic scrutiny.

#### Long-Term (2041–2050):

• **Predictive Analytics in Governance:** Use predictive analytics to preemptively identify areas of potential corruption or inefficiency.

# 4. Institutionalize Public Participation

- **Participatory Budgeting:** Introduce participatory budgeting systems, allowing citizens to decide on the allocation of municipal funds, inspired by Porto Alegre, Brazil.
- **Feedback Loops:** Create digital portals for citizens to provide real-time feedback on public services.



- **Civic Education Programs:** Launch nationwide programs to educate citizens about their rights and the importance of transparency in governance.
- Community Oversight Committees: Establish local committees to monitor government projects and spending.

## Long-Term (2041-2050):

• Institutionalized Citizen Panels: Create permanent citizen advisory panels to influence policy decisions and ensure alignment with public interests.

# 5. Combat Corruption

## Short-Term (2025–2030):

- Anti-Corruption Task Forces: Strengthen task forces dedicated to investigating high-profile corruption cases, modeled after Hong Kong's Independent Commission Against Corruption.
- Transparent Procurement Systems: Digitize and automate procurement processes to eliminate manual intervention and favoritism.

## Mid-Term (2031-2040):

- Mandatory Asset Declarations: Require public officials to disclose assets, with independent audits to verify accuracy.
- Corruption Reporting Channels: Establish anonymous, accessible platforms for reporting corruption.

#### Long-Term (2041–2050):

• **Cultural Shift Against Corruption:** Integrate anti-corruption education into school curricula to build a culture of integrity from a young age.



# 6. Ensure Judicial Independence

## Short-Term (2025–2030):

- **Judicial Appointments Reform:** Introduce transparent processes for appointing judges to ensure merit-based selections.
- **Public Trials:** Make key court proceedings publicly accessible to promote transparency in judicial decisions.

#### Mid-Term (2031-2040):

- Judicial Oversight Mechanisms: Establish independent bodies to oversee judicial performance and ensure accountability.
- Digital Case Management: Digitize court records to enhance efficiency and accessibility.

#### Long-Term (2041-2050):

• **Global Standards in Judiciary:** Position Mexico as a regional leader in judicial transparency and efficiency.

#### 7. Promote International Standards

- Adopt Global Frameworks: Align Mexico's transparency policies with international standards, such as the Open Government Partnership (OGP).
- **Peer Reviews:** Participate in international peer reviews to benchmark and improve transparency initiatives.



• **Cross-Border Transparency Agreements:** Collaborate with neighboring countries to track and prevent cross-border corruption.

## Long-Term (2041–2050):

• **Export Accountability Models:** Share Mexico's accountability frameworks with other countries, establishing leadership in global transparency.

# **Projected Outcomes**

#### **Governance Benefits:**

- **2030:** Fully operational independent oversight institutions and transparent public spending.
- **2040:** Institutionalize digital governance systems, reducing corruption by 70%.
- **2050:** Achieve global leadership in public accountability, fostering economic and social stability.

#### **Economic Benefits:**

- Improve investor confidence through robust regulatory oversight and transparent governance.
- Save billions annually by eliminating inefficiencies and corruption in public spending.

#### **Social Benefits:**

- Enhance public trust in government, fostering a stronger democratic culture.
- Empower citizens to actively participate in governance and decision-making.

This comprehensive plan addresses Mexico's challenges in public accountability and transparency by integrating innovative solutions and proven global strategies.



# **Closing Statement for the MDP Initiative**

The **Mexico Development Programme (MDP)** envisions a transformative journey to position Mexico as a global powerhouse within the next 25 years. Anchored on fifteen strategic pillars, the MDP outlines a comprehensive and inclusive roadmap that addresses the nation's challenges while leveraging its unique strengths. From revolutionizing the energy sector and fostering industrial growth to reimagining education, healthcare, and public accountability, this initiative embodies our commitment to systemic reforms, equitable progress, and sustainability.

At the heart of this ambitious plan lies a steadfast focus on fostering innovation, bridging regional disparities, and uplifting the quality of life for every Mexican citizen. By integrating cutting-edge technologies such as automation, blockchain, and artificial intelligence into our governance and industries, Mexico will emerge as a leader in innovation and sustainability. Our goals of eradicating poverty, ensuring universal access to quality healthcare and education, and safeguarding our rich environmental heritage align with global best practices, driving inclusive development and international collaboration.

The **MDP Initiative**, however, is just the foundation—a robust framework designed to highlight what is possible. It serves as a starting point for deeper exploration, collaboration, and innovation. The framework can be further refined, detailed, and expanded upon in a more comprehensive manner, adapting to evolving challenges and opportunities. It is a living blueprint meant to inspire collective action and continuous improvement.

By 2050, we aim to see Mexico celebrated as a global beacon of resilience, innovation, and equity—where economic strength is matched by social harmony, and sustainability is interwoven into the fabric of progress. This is our promise, our responsibility, and our legacy for the generations to come. Together, we will build a Mexico that leads the world.

#### ~ AXX Investment