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# **Geopolitics of Energy Security and Governance in Mexico**



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# Mexico's crisis of energy security

- For nearly eight decades Pemex has played a **key role in developing** Mexico's infrastructure. It became **Mexico's largest company** and the thirteenth largest in the Americas, but corruption, an undemocratic trade union leadership, links between executives and organised crime, and its role as a major provider of the public budget, have **fostered economic inefficiency and financial loss**.
- Since 2015, the drop in global oil prices has affected **government spending** in Mexico, due to lack of preventive measures. The budget still depends on oil revenues and the Government had to adopt austerity measures and seek alternative sources of income. The **financial calamity** represents a structural crisis of an exhausted model, based on the **depletion of a non-renewable resource** and shows the **fragility** of Mexico's present **energy security**.

# **Sustainable energy security in Mexico**

The (Intended) Nationally Determined Contributions (INDC) agreed in Paris in 2015 have created an **opportunity for Mexico** to develop its **abundant renewable energy** (wind, solar, geothermal, tidal, and biomass) potential. The Government may promote **co-investments with citizens**, public, private national and international capital and reinforce its energy security in remote regions, to **consolidate energy supply**, based on sustainability and **collective welfare**.

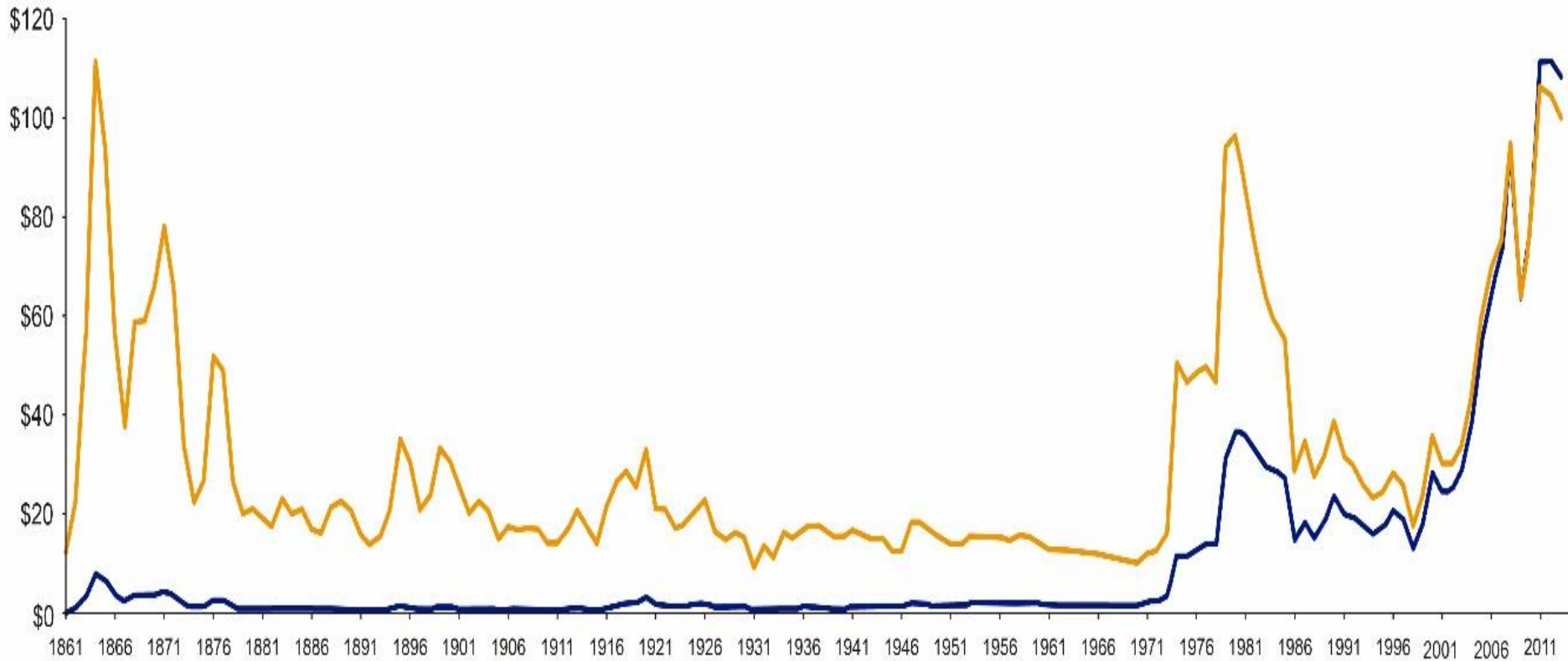




# Energy security for EIA

- The US Energy Information Agency (EIA 2015) stated that stable oil prices and a continuous supply of hydrocarbons are a prerequisite for energy security. Therefore, not only the military dimension, but also political, economic, societal and environmental considerations are relevant for a long-term global energy security.
- Wolfers (1962) had distinguished between **objective security** as the absence of threats to acquired values and **subjective security** as the absence of fears that these values could be attacked. But it is necessary to ask which values are to be attacked and how as well as who is threatened and by what means? Wolfers (1962) identified whether these threats were serious, which were imagined and which were real and demonstrated how to distinguish between them. In addition, geopolitical and military conditions changed with the end of the Cold War, but also with the invasion of Iraq in 2003, international military intervention in Libya (2011) and the war in Syria (since 2011).

# Nominal real oil prices: 1861-2016



■ Nominal  
■ Real (2008 Dollars)

1861-1944: US Domestic First Purchase Price  
1945-1985: Arabian Light Posted at Ras Tanura  
1986-2013: Brent Spot



# Widening, deepening and sectorialization of security

- Global political and military changes after the Cold War brought the Copenhagen School to broaden the definition of military and political security to economic, environmental and societal security (Buzan/Wæver/de Wilde 1998) with reference objects, values and regionally different risks and threats, according to the security in question.
- The United Nations (UNDP 1994) deepened the security approach by developing a concept of human security that ranges from the individual, family, community and nation to global level. Human security emphasises on the absence of fear, on 'freedom from want' in order to overcome structural inequalities; on freedom from hazard impacts and on the rule of law with respect for human rights and the empowerment of the most vulnerable people.
- Serrano (2009) proposed an engendered security and Oswald Spring (2009; 2013) gender security.



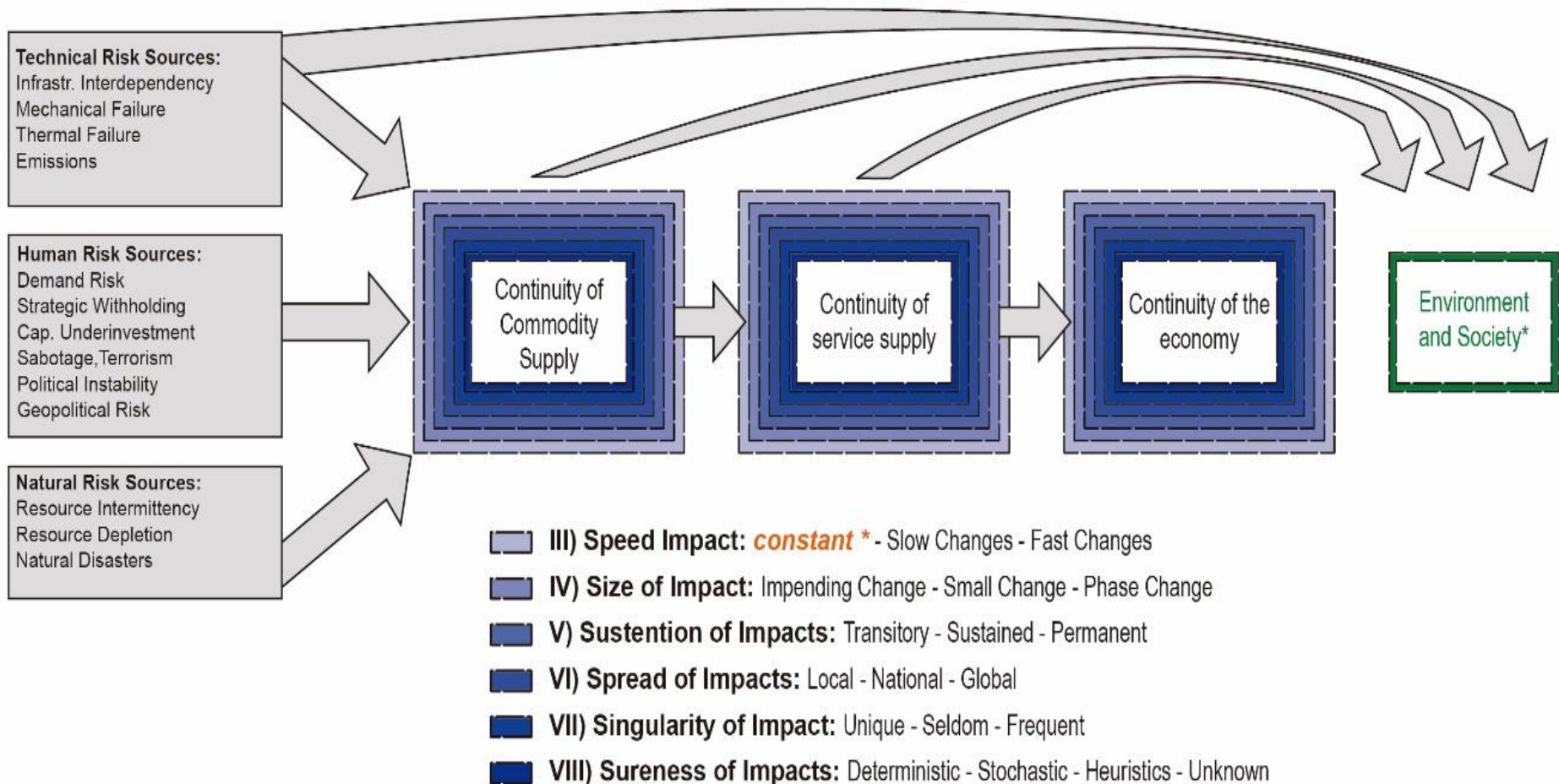
# Widening & deepening security

<b>Determination</b> Which security?	<b>Reference object:</b> Security of whom?	<b>Value at risk:</b> Security of what?	<b>Source(s) of threat:</b> Security from whom or what?
<b>National security</b>	<b>The State</b>	<b>Territ. integrity</b>	<b>State,substate actors</b>
<b>Human security</b>	<b>Individual, humankind</b>	<b>Survival of humankind people</b>	<b>Nature, state, globalization</b>
<b>Environmental sec.</b>	<b>Ecosystems, rural and urban systems</b>	<b>Sustainability</b>	<b>Humankind, Nature</b>
<b>Gender security</b>	<b>Gender relations, indigenous people, minorities</b>	<b>Equity, identity, social relations, solidarity, identity, tolerance</b>	<b>Patriarchy, totalitarian institutions (élites, governments, religious fundamentalism, dominant cultures), intolerance, intra-family violence</b>

# Complex energy security (Winzer 2011: 20)

## I) Sources of Risk:

## II) Scope of the impact Measure:



\*) *Economic Efficiency*

\*\*) *Sustainability and Safety*



# Energy security and wars

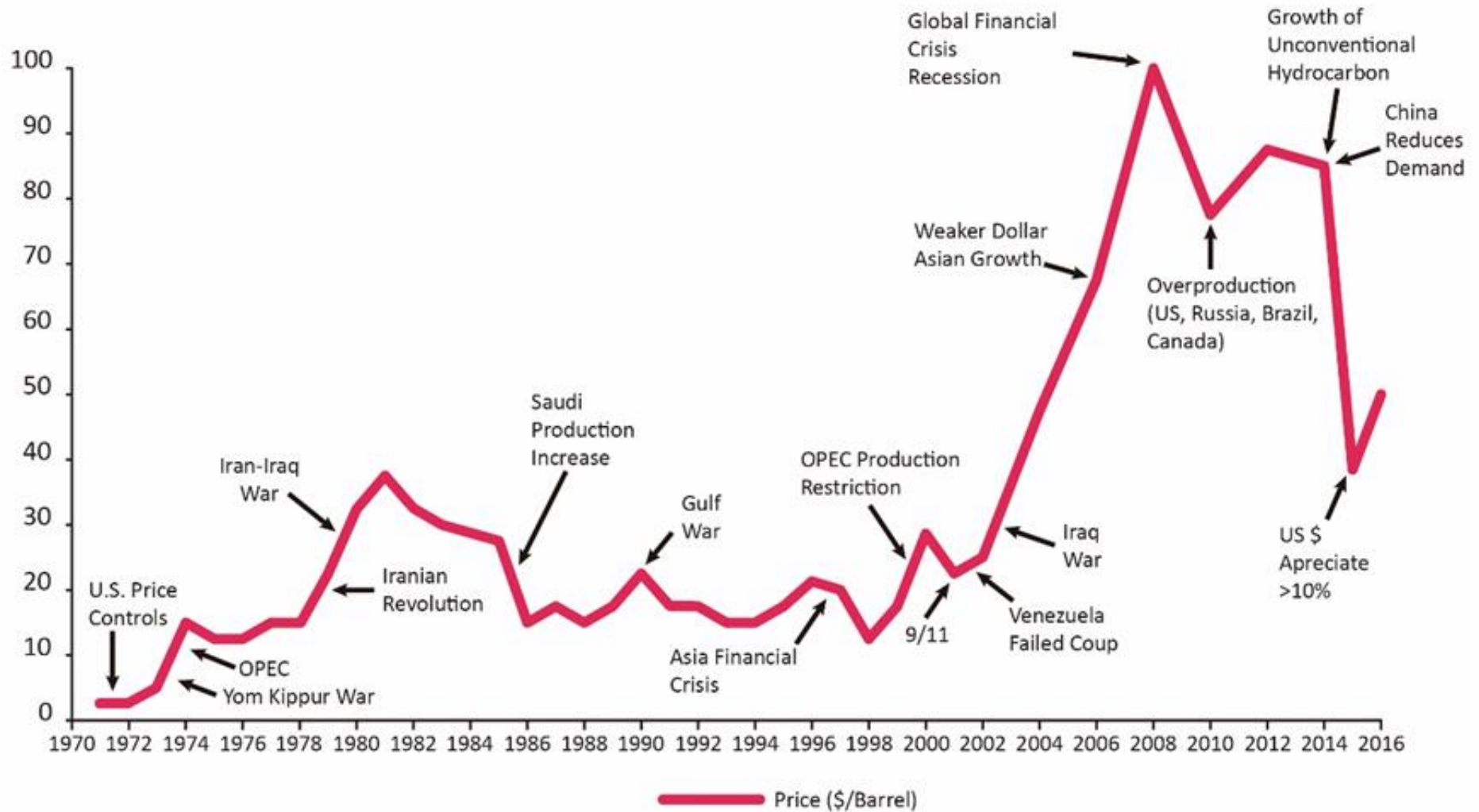
During World War I, the United Kingdom (UK) and France experienced disruption to their oil supply due to the Russian Revolution (1917). Both had used oil for their warships instead of coal, as this enabled the ships to travel faster and stay longer at sea. To mitigate against future disruption, France established a strategic oil reserve of 25 per cent of its demand, a strategy later imitated by many other countries. Franklin D. Roosevelt well understood that lack of oil was one of the factors which led to Germany's defeat, as the Nazis could not completely replace oil with the 'Ersatz' (replacement) from coal. Since the early twentieth century, oil has become a strategic commodity for the British Empire. Thus access to oil in the Middle East became crucial, because Britain lacked it in the British Isles. Other nations sought alternative safe supplies of fossil fuels. During World War 2, Mexico and Venezuela were safe and relatively near suppliers for the US.



# Anglo-American Petroleum Agreement

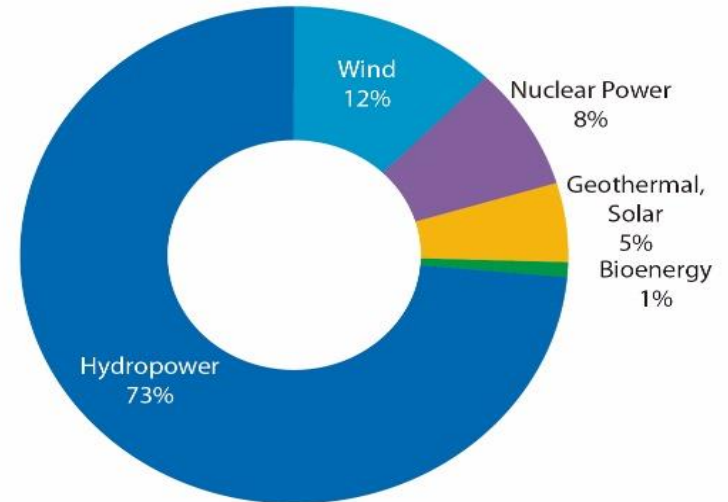
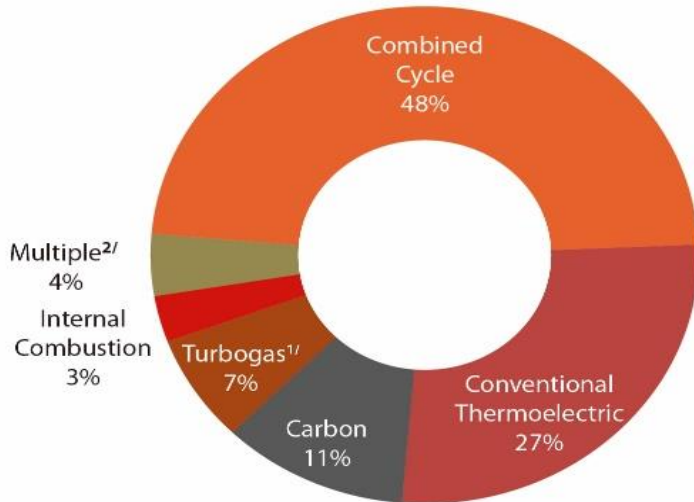
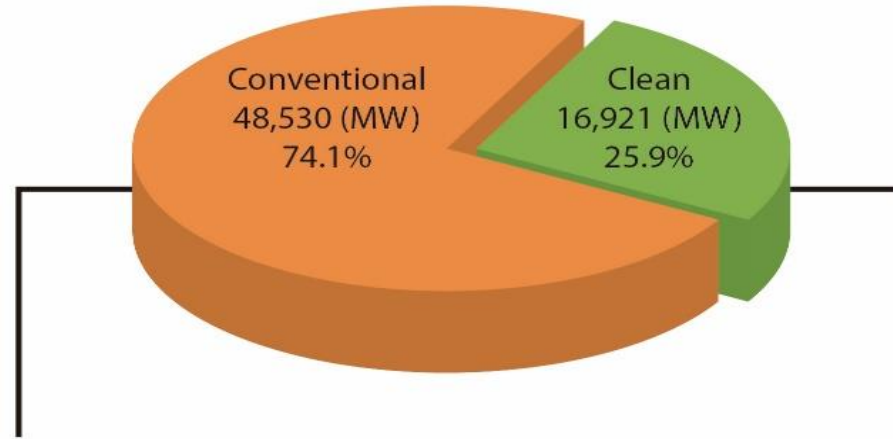
- On 8 August 1944 Roosevelt and Churchill signed the Anglo-American Petroleum Agreement, which divided access to the oil in the Middle East between the US and UK, without taking the supply countries into account. According to Roosevelt: “*Persian oil ... is yours. We share the oil of Iraq and Kuwait. As for Saudi Arabian oil, it’s ours*” (Anglo-American Petroleum Agreement 1944).

# Geopolitical impacts on oil prices





# Power generation in Mexico



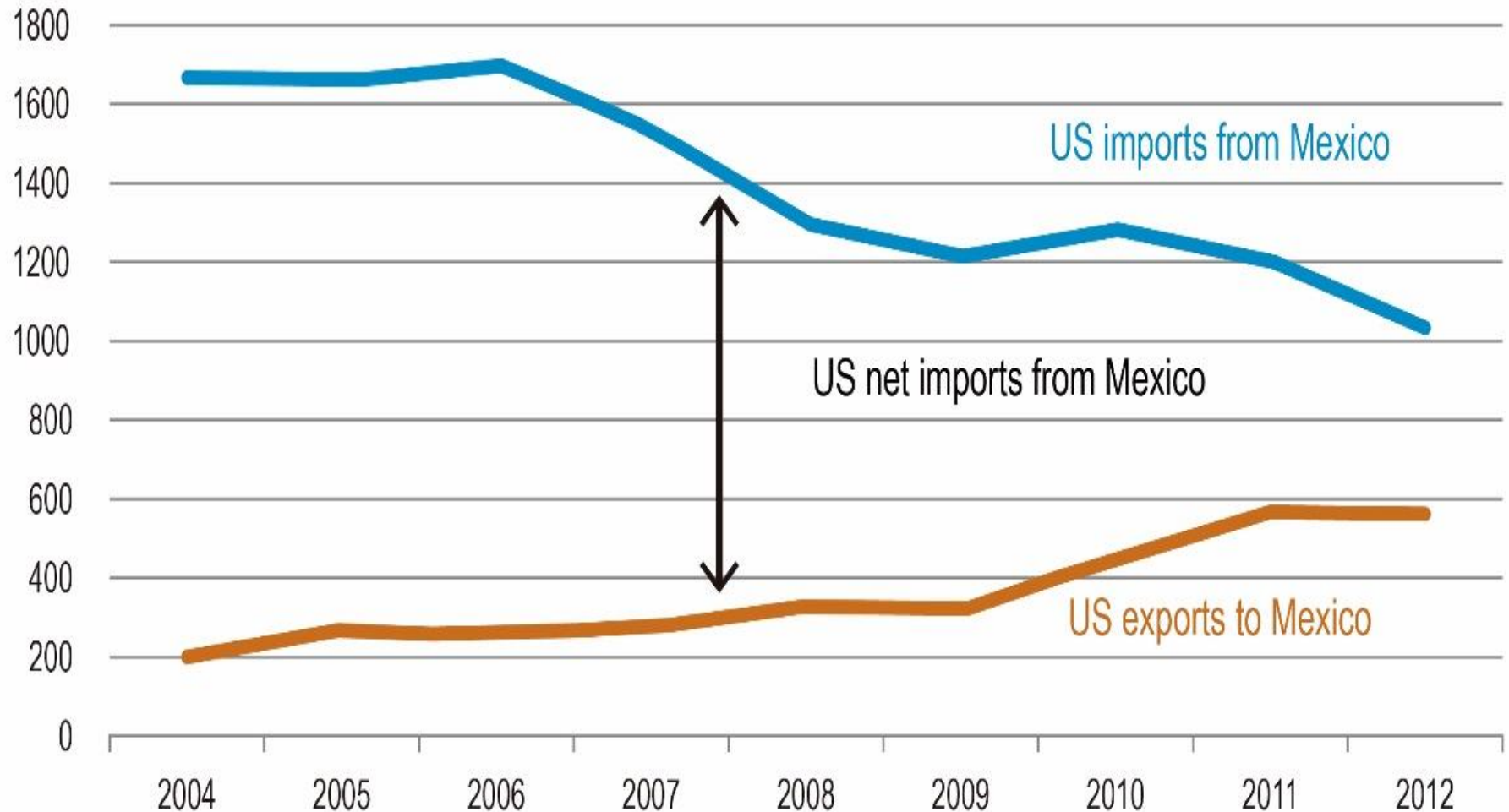
1/ Includes mobile plants

2/ Combination of technologies

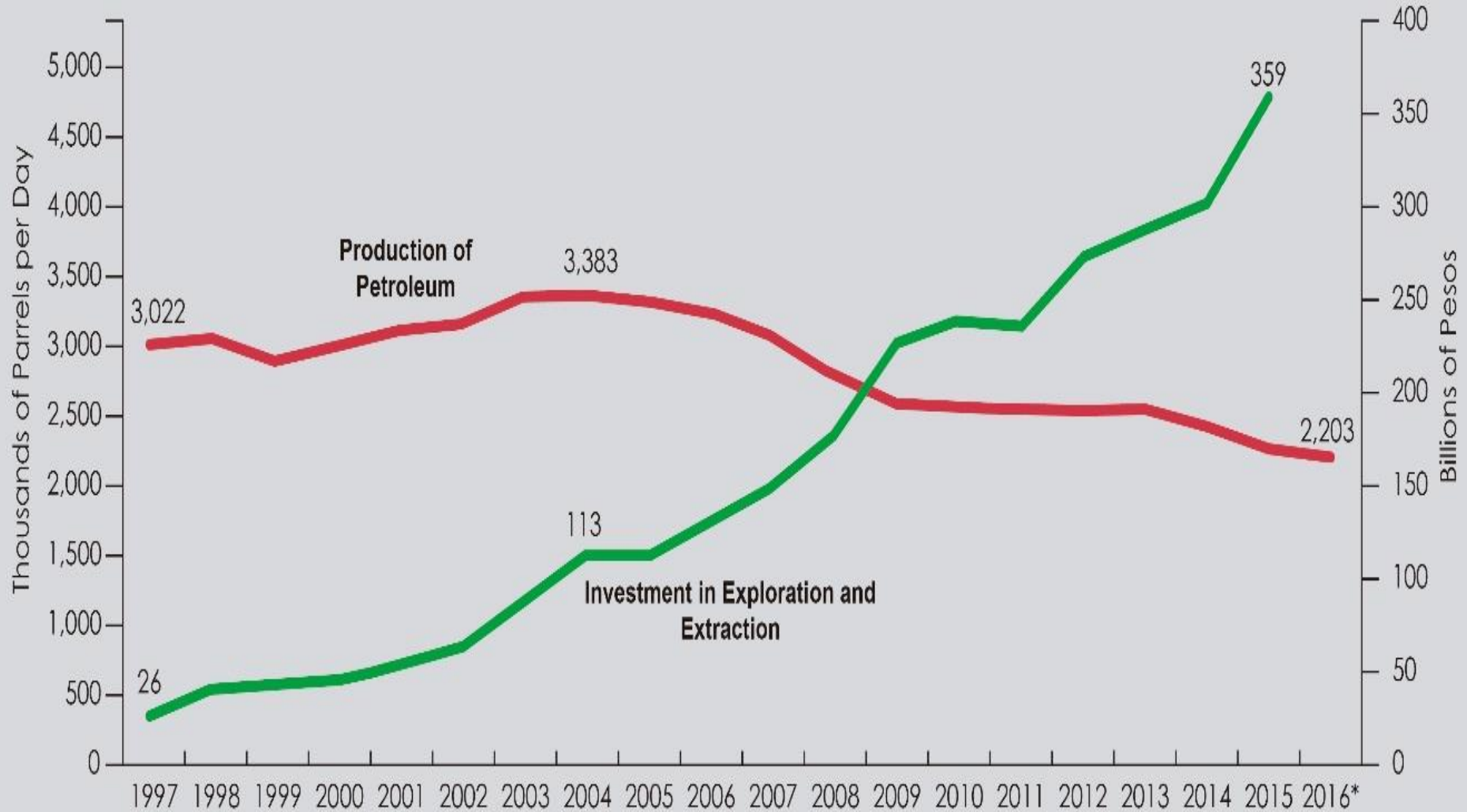


# Export/import of oil in Mexico (EIA 2013)

thousands of barrels per day

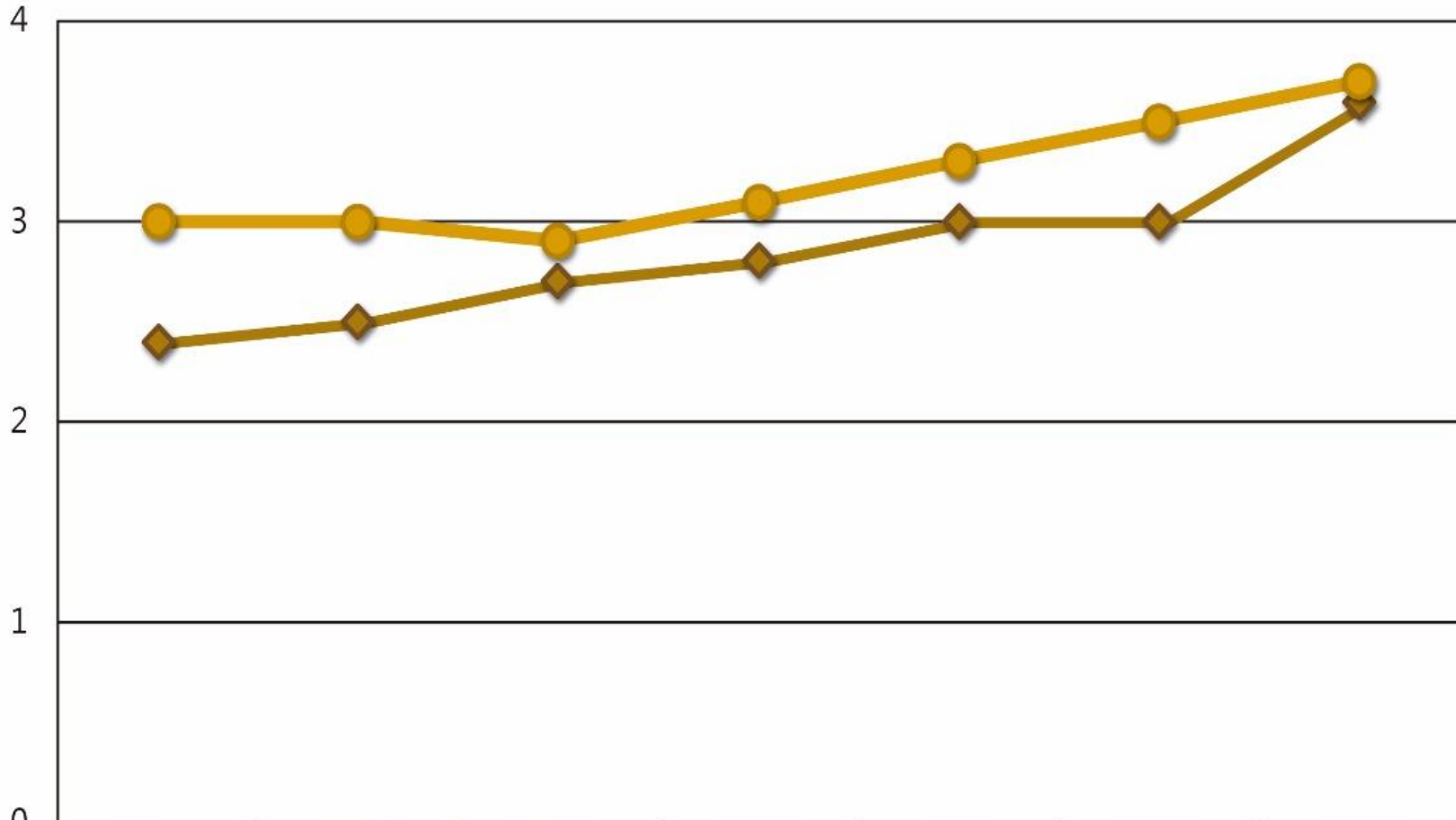


# Investment and production of oil



\* Production: Covers the Period from January to June  
Investment: No Data

# Perspectives of production/ consumption of oil in Mexico



◆ Consumption

● Production

2011

2012

2020

2025

2030

2035

2040

2.4

2.5

2.7

2.8

3

3

3.6

3

3

2.9

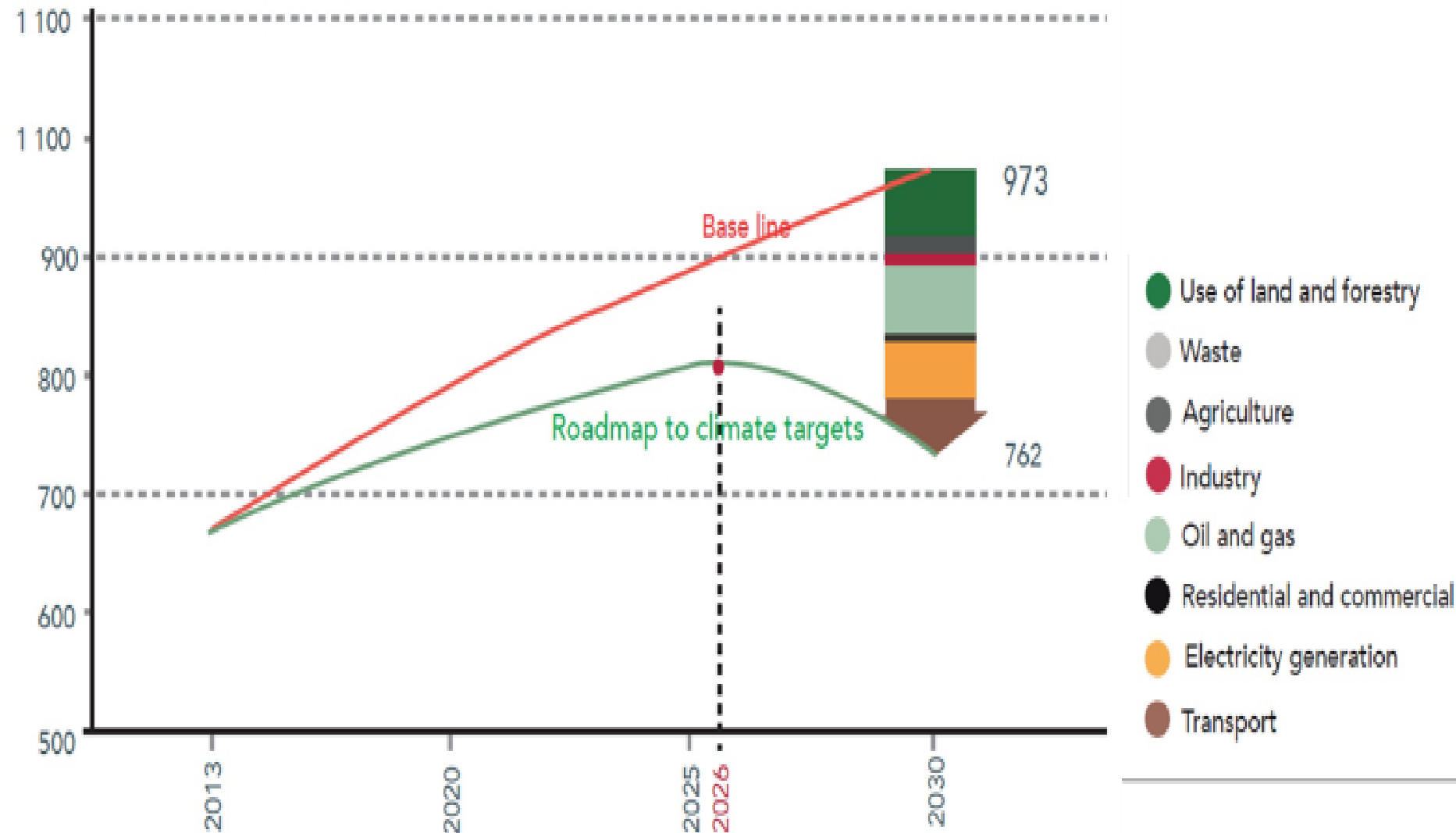
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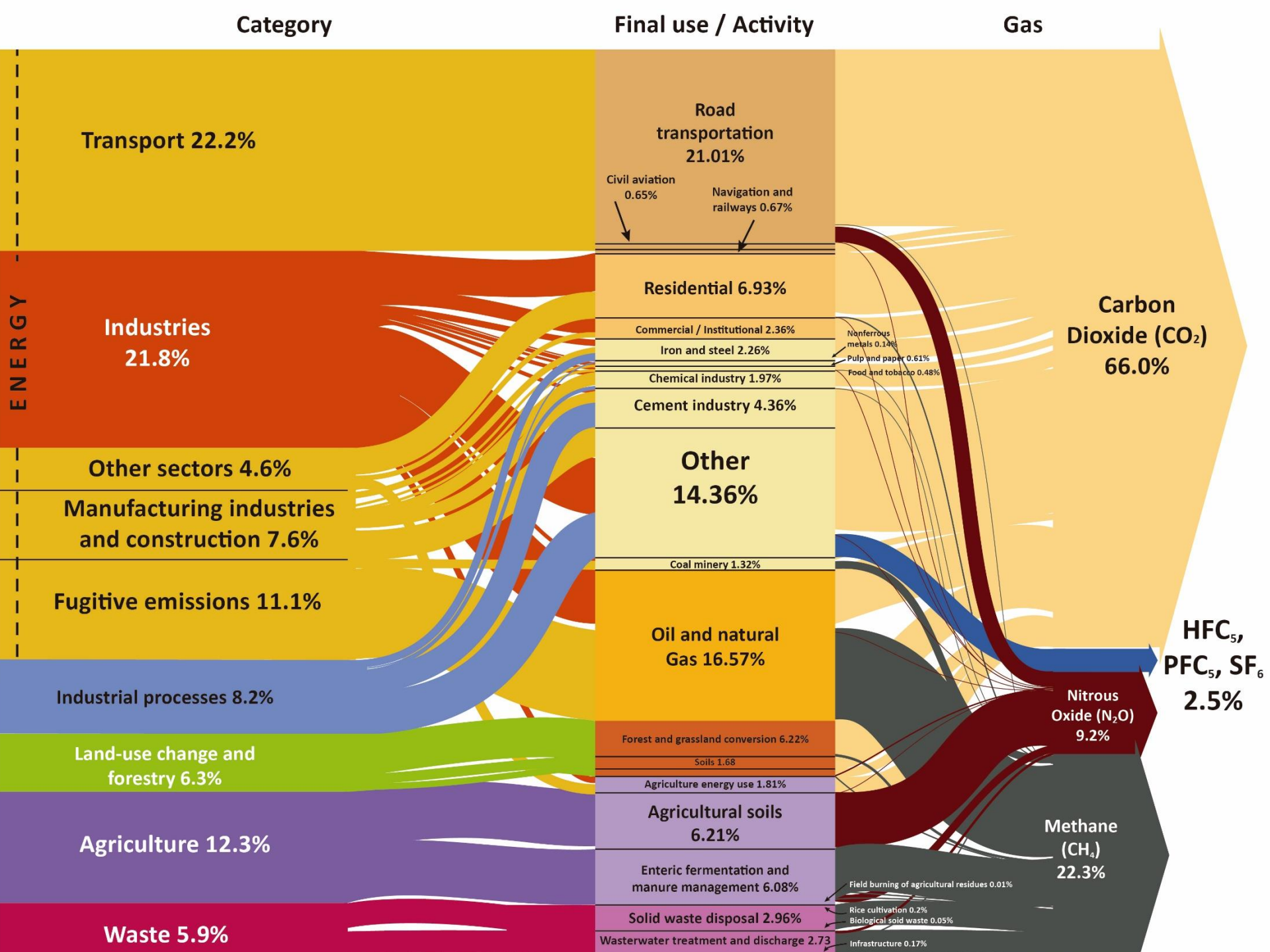
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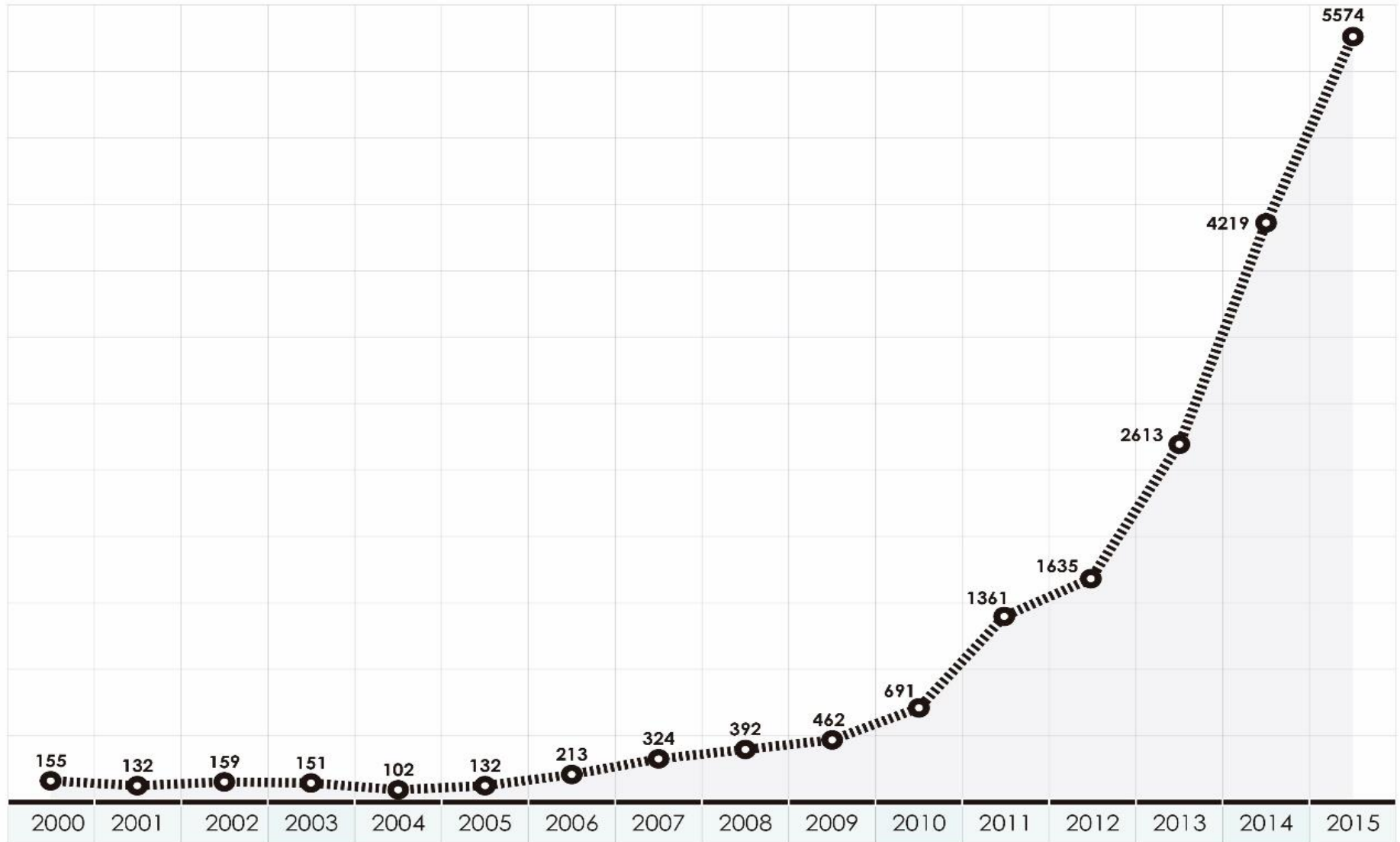
# BAU and Paris agreement





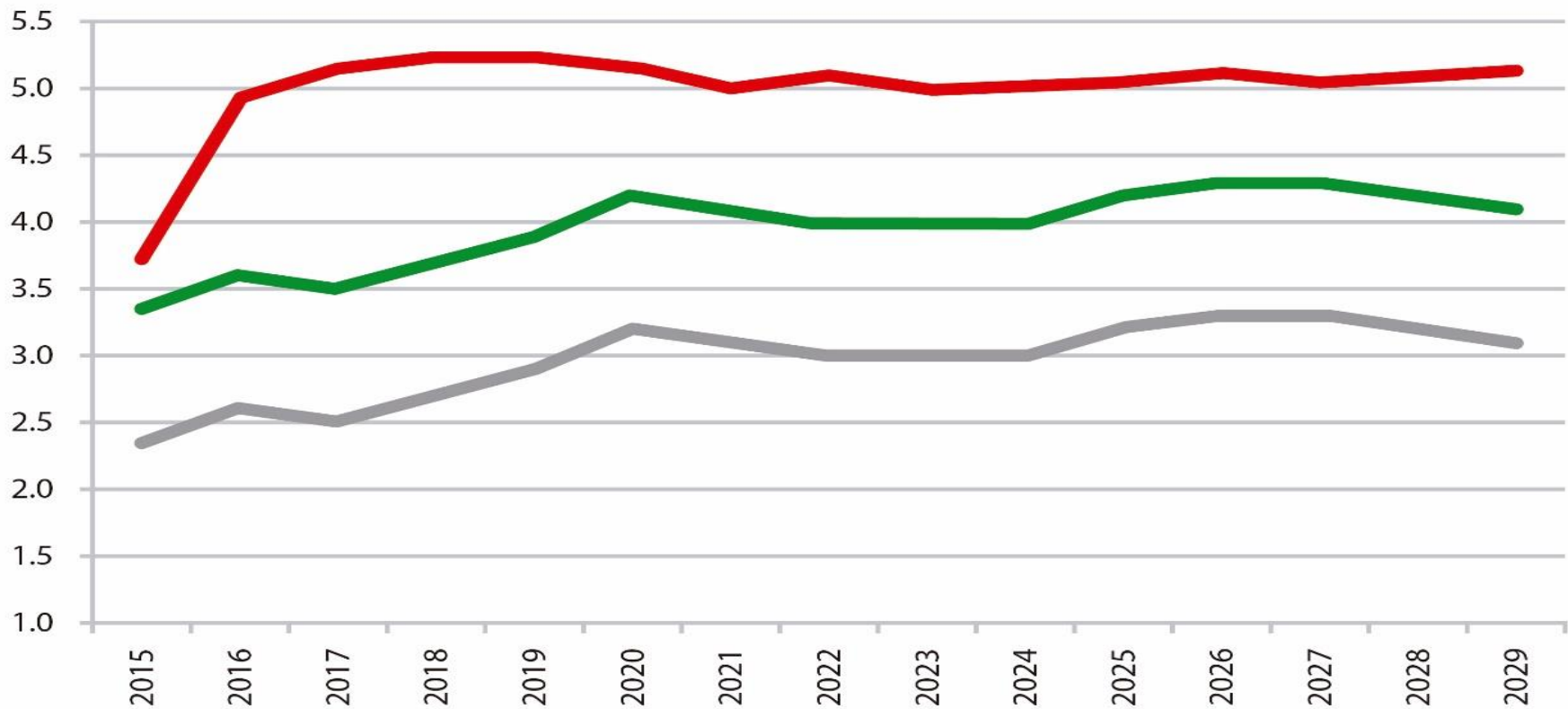


# Crimes and oil thefts (Nuche and Etelekt 2015: 8)



# Power requirements (Prodesen 2015: 35)

Stage	Low	Planning	High
TCMA <sup>1/</sup>	3.0	4.0	5.0



# **Integrated energy security for Mexico**

An integrated energy security requires the country to **discard the traditional perspective of militarily and politically orientated energy security** and to promote a comprehensive **long-term energy strategy**, which is orientated towards **energy sovereignty, social welfare, poverty alleviation and environmental restoration**. The uncertain political context since the Trump Government offers Mexico an **opportunity to promote a different energy development process** with existing financial and scientific knowledge. But this approach will require an **integrated understanding of security**. Only through a widened and deepened understanding of energy security, taking **human, gender, economic, societal and environmental care into account**, may Mexico achieve a sustainable development with peace and justice.



# **Transition to a sustainable energy security**

The transition to renewable energy sources is a fundamental part of energy security, and Mexico can diversify its energy basket. Greater diversity in the generation of clean energy and a policy of differential prices, e.g. higher costs for electricity during peak hours, would promote power savings and reduce the problems of intermittency. Better storage systems and the simultaneous use of various renewable energies would reduce the risks of intermittency, lack of energy and regional blackouts. The reduction of the dependence on fossil fuels may help Mexico to become independent of the sharp fluctuations in international fuel prices and the multiple geopolitical instabilities. Thus, a long-term renewable energy policy may ensure a safe and healthy power supply with fewer GHG emissions.



**Trinational  
energy  
security?**

# Trinational energy security?

- The **US energy security has changed**: since 2014, the US has become the world's largest oil producer, with 14.021MBD, but is still not fully self-sufficient as its domestic consumption amounted to 19.11MBD (DOE 2015).
- Canada produced in 2014 4.383MBD of fossil oil and 4.07 MBD in November 2016, **bitumen extracted from the Athabasca oil sands** (Canadian National Energy Board 2016).
- Mexico is integrated into this **North American oil market**. In 2013 these three countries together produced **16.826 MBD of crude oil, and 21.389 MBD of gasoline were refined** (IEA 2015).
- Is the Trump administration allowing a trinational energy security through the renegotiation of NAFTA?

# Actors of vulnerability

Marginally, neglected with shortage, helpless, rightless, abandoned, socially and physically ill, gender & elderly discrimination and violence, killers, youth stigmatized, girls sold for early marriage & prostitution, repressor, capo organized crime, despotic, macho, dominant, abusive, governmental repressors, mestizo landlords and hoarders, transnational enterprises and mines, agribusiness

## Arenas of vulnerability

Dangerous, politicized, violent and conflictive environments, organized crime, disasters, victims, complex emergency, vulnerable, social and governmental neglected environments with highly social stratification, injustice, social anomie

### Arenas of human security

Restored sites, accountable and transparent government, proactive policy, trained people, poverty alleviation, job creation, solidarity, preventive education, participative governance, equality and equity in government and people

Actors of human security

Empowered, resilient, trained, adapted, happy, dignified, organized, active, dignified, participative, transparent & responsible government & people

**HUGE  
Security  
& peace**

Strategies of adaptation, resilience & peace-building, conflict resolution, environmental restoration, promotion of gender & social equality and equity, poverty alleviation, job creation, subsistence crops, subsidies, fight against intraterritorial violence, negotiations, agreements, treaties, mitigation, DRR, DRM, adaptation and prevention, poverty & hunger alleviation

Policy of sustainability, equity and equality, institutional care, negotiation of conflicts, community organization, equality in income, human rights, social obligations, fight against gender insecurity, communitarian police, food security, land reform, political stability, state of law, safe environment, political stability, accountability

### Agenda of human security

Activities of human security

Activities increasing double vulnerability

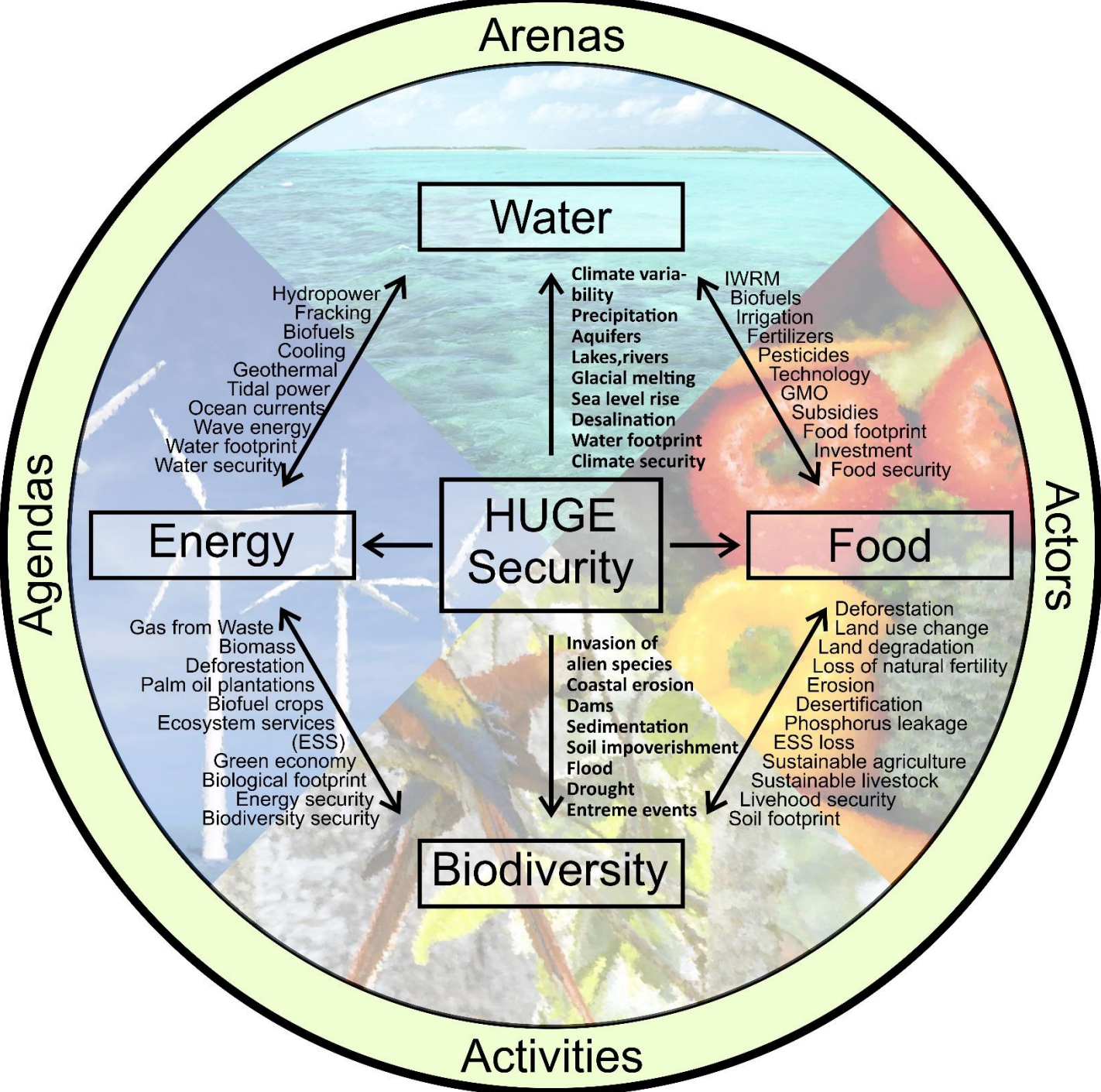
Conflicts, clashes, disasters, environmental destruction, desertification, social discrimination of women, youth & elderly, organized crime, extortion, kidnapping, extortion, human, arms & organ trafficking, feminicides, rape, violence, state crimes, repression

# Governance in energy security

Lack of education, health, public services, transparency, income & employment, governmental support, hunger, extreme poverty, institutional neglect, gender discrimination & violence, mestizo privileges, concentration of wealth & land, impunity of crime, illegal crops, community conflicts on resources

## Agendas of vulnerability





# Nexus among water, food, biodiversity and energy security

An offshore oil rig is silhouetted against a bright orange and yellow sunset sky. The rig is positioned in the center of the horizon line. The foreground shows dark blue ocean waves with white foam, moving towards the viewer.

**Thank you for your  
attention**

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