

# Contradictory value(s) of coal mining in Colombia: Re-discussing values in economics and international interconnectedness of energy injustices

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**Hanna Brauers**

Research Associate at Technical University Berlin,  
Workgroup for Infrastructure Policy (WIP), Junior Research Group CoalExit  
and Guest Researcher at the German Institute for Economic Research (DIW Berlin)



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**What is value?**

**How do we measure value(s)?**

**Why does it matter to talk about values in economics?**



**Too philosophical? Or overdue debate in economics?**

# Agenda

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**1. Value(s) in Neoclassical & Heterodox Economics**

**2. Value(s) of Coal Mining in Colombia**

# Value in Neoclassical Economics

“Supply and demand of scarce resources regulates value expressed in money”

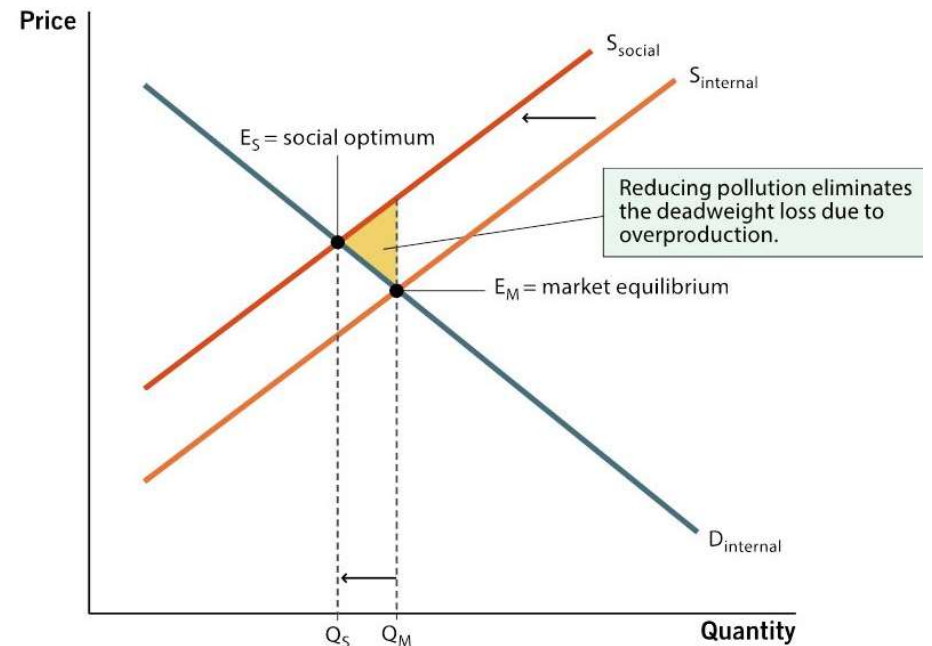
price is a direct measure of value:

- only what can be priced is productive, has value
- Individualism, no objective measurement of value

⇒ Price determining value

⇒ Mathematised marginalism economics aims to be a “value free”, objective science

⇒ Including environmental (& social problems) as externalities



Wikimedia (2019); Raworth (2017); Mazzucato (2018)

# Alternative approaches to value in economics

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**Different concepts of values were a central debate of the economics profession (e.g. Smith 1776; Ricardo 1817; Marx 1867)**

- until 19<sup>th</sup> century prices of goods and services, tied to **time of production, working conditions, etc., theory of value (e.g. labour theory of value)**

**Heterodox economics approach today as alternative to Neoclassical economics:**

„The **definition of value** is always as much about **politics**, and about **particular views on how society** ought to be constructed, as it is about narrowly defined economics. **Measurements are not neutral: they affect behaviour and vice versa**”.

- “need to go beyond seemingly scientific categorizations of activities and **look at the socio-economic and political conflicts that underlie them.**”

▶ **Idea of value used to be discussed, today just dynamics of prices due to scarcity & preferences**

▶ **Switch from value determining price to price determining value**

MARIANA  
MAZZUCATO  
**THE VALUE OF  
EVERYTHING**  
MAKING AND  
TAKING IN  
THE GLOBAL  
ECONOMY

allen lane

Mazzucato (2018)

# Heterodox Economics including sustainability, justice and incommensurability

- **Non-monetised values** such as the preservation of the composition of the atmosphere or (indigenous) cultures are not measured and therefore **not included in the calculation of wealth** and decisions about the desired direction of an economy.
- **New approaches of sustainable economics** include interdependencies between different **Sustainable Development Goals and Planetary Boundaries** (Alcamo, Grundy, and Scharlemann 2018; Raworth 2017; Steffen et al. 2015), go beyond male/neoliberal dominated ideas and **include justice as well as power** considerations (Nelson 2016, 2012; Healy, Stephens, and Mali 2019; Johnstone, Stirling, and Sovacool 2017); Ecological Economics **adds focus on social and environmental values** and goes beyond monetary valuation (Kallis et al. 2013; Martínez Alier and Muradian 2015).
- Main idea behind this analysis: Value(s) should regain stronger attention in analyses, because **value does not equal price and not all values can be represented by prices.**



Raworth (2017)

# Power shapes valuation

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- Economists, design theorists, anthropologists, and others investigating the intersection of economic value and social values have exposed the ways that **economic processes and structures systemically de-prioritize environmental and social imperatives**.
- Heterodox economic theorists [*Herman Daly, Robert Costanza, Mariana Mazzucato, Ha-Joon Chang, Lorenzo Fioramonti, Ann Pettifor, Molly Scott Cato, Steve Keen, Andrew Simms, Giorgos Kallis, and Kate Raworth*] — describe how current **economic practices, institutions, and structures cause irreparable ecological harm, drive greater wealth inequality, and are increasingly vulnerable to cycles of financial crisis**.
- Ecological economists (EE), feminist economists, and Marxist economists — focus on exploited environments, women, and workers — analyse issues of **power and privilege**, show that current **economic system structures systemically de-prioritize the interests of the environment, women, and other groups of people**, recognize **role of power, institutions and institutional change in shaping valuation and its outcomes**

# Value and valueS

Value = „economic value“	Values „social values“
Commodity for sale	What’s important in life (e.g. freedom, justice, ...)
Quantifiable	Qualitative as well as quantitative
Can be expressed in monetary terms	Can be intrinsic, relational, incommensurable
Process by which wealth is created (flow)	Values serve to guide way we organise economies, lives, etc.
Can also be intangible, e.g. new knowledge	„Values demarcate that which cannot and should not be converted into money.“ (Boehnert 2018)

## Mazzucato (2018):

**Value creation:** different types of resources (human, physical and intangible) are established and interact to produce new goods and services

**Value extraction:** activities focused on moving around existing resources and outputs, and gaining disproportionately from the ensuing trade.

**Missing in her definitions - value(s) preservation:** Protecting resources (such as the atmosphere, intact soils and water bodies or cultures)



# Contrasting valuation approaches: Cost-benefit analysis vs. incommensurability

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- Theoretical and methodological **shortcomings in deriving monetary values** (whether using revealed or stated reference techniques) **or regarding the application and use of these values (as e.g. in cost-benefit analysis)**.
- **Plurality and multiplicity make values incommensurable**, meaning not reducible to a single value;  
however, that is common in neoliberal practices: dominant actors impose market-based and monetary language in cost-benefit frameworks, **disregarding other valuation languages** related to personal attachments to territory or environmental significance; therefore commensuration as an act of power.

Mazzuccato (2018); Cardoso (2017); Arias-Arévalo (2017); Kallis et al, (2013); Boehnert (2018); Healy, Stephens, and Malin (2019)

# Agenda

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**1. Value(s) in Neoclassical & Heterodox Economics**

**2. Value(s) of Coal Mining in Colombia**

# Research outline and methodology

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## ***Research Question***

Which value(s) does coal mining in Colombia create, preserve or destroy and for the benefit/ disadvantage of whom?

## ***Approach***

## ***Results***

# Research outline and methodology

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## ***Research Question***

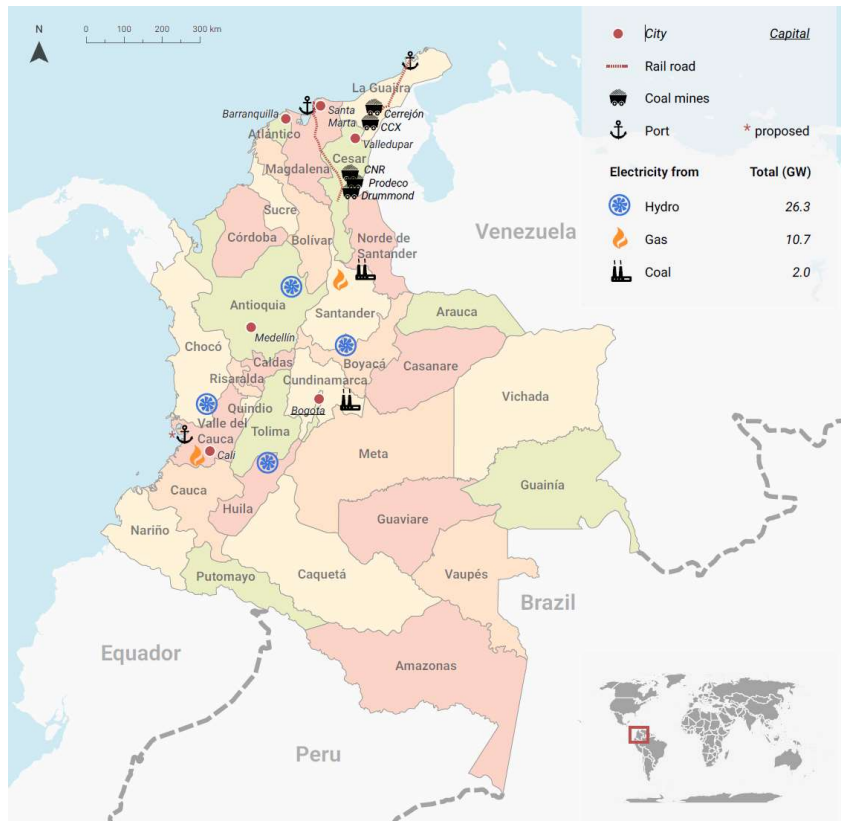
Which value(s) does coal mining in Colombia create, preserve or destroy and for the benefit/ disadvantage of whom?

## ***Approach***

- Semi-structured interviews (15) in two coal mining regions (March/April 2019) + local discussion forums, academic conference on coal transitions as well as desk study research + access to interviews, focus groups and workshop results by research team
- Comparing neo-classical with alternative economic valuation approaches

## ***Results***

# Short intro to coal in Colombia



- Colombia 5<sup>th</sup> largest coal exporter globally (2018).
- 2017: 91 mill. t of coal produced, 83 mill. tonnes of coal from Cesar and La Guajira (>90%).
- ~ 30.000 employees in coal mining sector.
- Market dominated by large international corporations: Cerrejón owned by BHP Billiton (UK/Australia), Glencore Xstrata (Switzerland) and Anglo American (UK/South Africa), US-based Drummond, Prodeco (Glencore); CNR (US).
- Less than 4% of Colombia’s electricity produced by coal (2017).
- Ongoing peace process: after >50 year-long armed conflict.
- Legacy of environmental justice problems; displaced thousands of Wayúu, Afro-Colombian and campesino (peasant) populations (theoretically granting right of prior consultation to indigenous people and Afro-Colombians; endowing ethnicity with land rights, legal foundation in the Constitution for defense of their territorial rights).



UPM (2019); Strambo and Atteridge (2018); Oei and Mendelevitch (2018); Healy, Stephens, and Malin (2019); Capaz (2019).

# The Neoclassical story about coal mining in Colombia



- "But neither can we talk about Colombia without mentioning **coal**, the source for the country and for its regions of **formal employment, development, opportunities and progress**. Coal, for decades, has been the **godfather of many generations of Colombians**, to whom a black stone has allowed them to have **education, housing, health and infrastructure**." *Carbopaz (2018)*.
- **Economic development:**
  - Coal mining 1.3% of the GDP; and 12% of exports; 80% of all mining royalties in Colombia (2015)
  - Coal industry contributed 38% (César) and 44% (La Guajira) of the regional GDP (2016)
  - Several municipalities received >1/3 of their total income from coal royalties
- **Employment:**
  - 30,000; limited alternative employment options in those departments, particularly for a workforce with low education levels; none offer equivalent salaries to mining.
- Framed by national government as "**locomotive of development**" in the National Development Plan; "responsible mining", "contribution to funding the peace process and its associated social programmes".
- **Climate change:** putting a tax on carbon (\$5 USD per ton of carbon dioxide), coal is exempted.

Conservation Finance Network (2018); OEC (2019); Strambo and Atteridge (2018); Strambo et al. (2019); Tierra Digna (2019).

**Value**

**Values**

Economic development

Employment

(In-)justices/Peace

Climate Change

Environment

Mental and physical health

Subsistance, livelihood

Infrastructure

Life of people, plants, animals

Identity

Culture

...

Value

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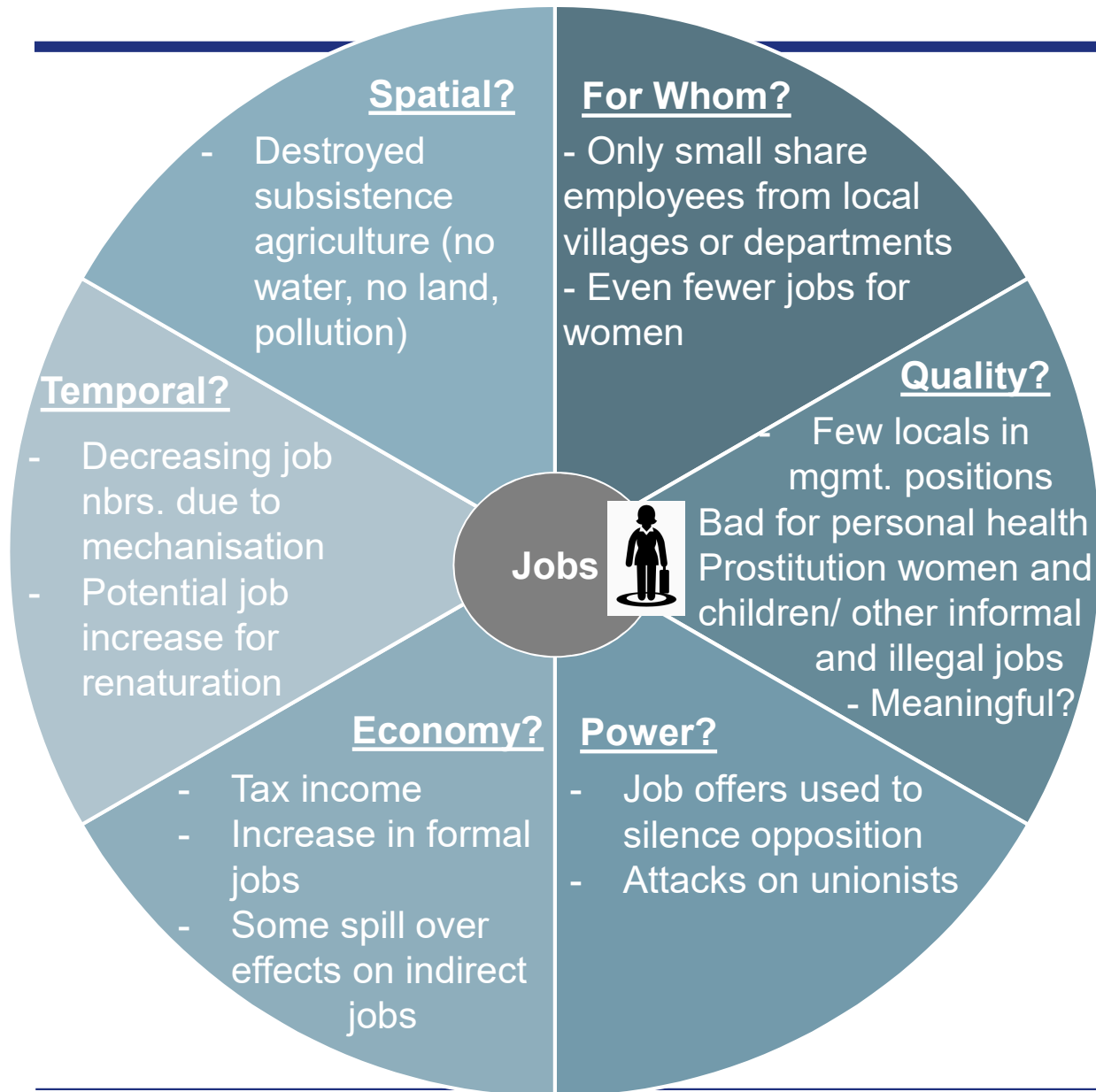
Identity

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...



# Employment – an alternative story to „30,000 employees“



- “Destroyed circle of the economy”: Large outflows due to foreigners and people from other regions in COL; most mining firms are multinational (Spain, Turkey, China, USA, Brasil, ..)



Source: Interviews; Llanto Infantil (2014).

Value

Values

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**(In-)justices/Peace**

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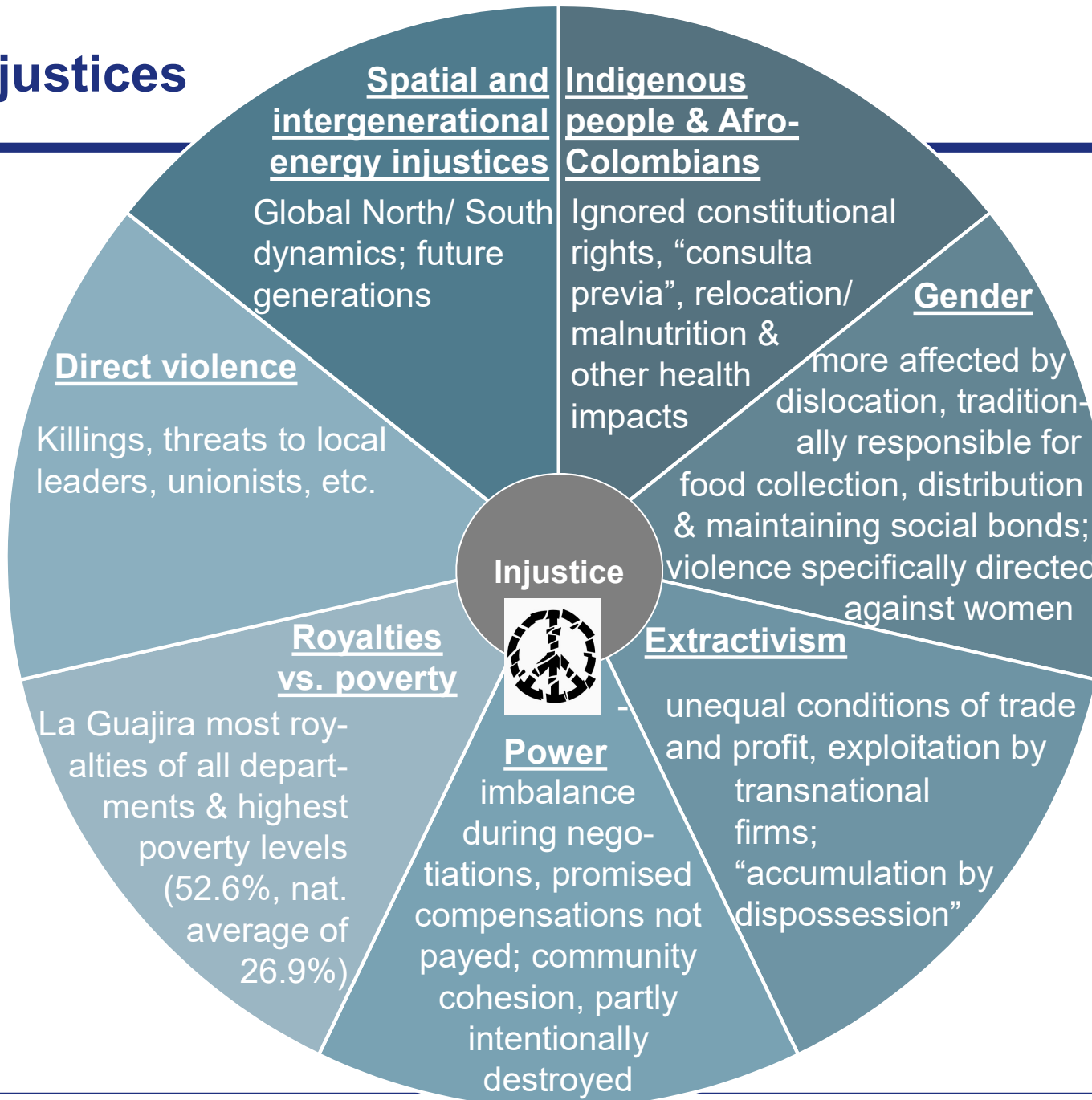
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# (In-)justices



- Energy injustices can be **quantifiable**, such as uneven environmental contamination, disproportionate environmental health impacts, and livelihood disruptions
- or **non-quantifiable**, such as slow violence, forcible displacement, and human rights violations, ...

# Violence

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- Massacres perpetrated by paramilitary groups; e.g. in **Cesar**, AUC responsible for **the killing of >3,000 people (1996-2006)**, including many trade unionists. Drummond: accused of **using the death threats to prevent workers dissent** (so called blood coal). Several utilities stopped purchasing coal from Drummond. Official investigation started in October 2018.
- Expanding mining comes hand in hand with violence + violent counter protests
- Estimates that **80% of human rights violations in COL occurred in mining and energy municipalities**
- 87% of forced displacement in municipalities receiving royalties for mining-energy production
- 78% of crimes against trade unionists, 89% against indigenous people and 90% against Afro-Colombian communities committed in mining and energy areas
- Fear of speaking out/demonstrate, no trust in governments (not national, nor local), **so-called “social leaders” getting threatened, attacked and killed** (The attorney general’s office: 292 killings 01/2016-06/2019/Think-tank INDEPAZ says: **734**). (Reuters 2019); mix of guerrilla, paramilitary, military, police, etc. Conflicts of the past, but partly related to the mine like the collaboration of mines with paramilitary, or funding of threats

PAX (2019); Re:Common (2019); Maher (2015)

## Interview evidence

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"they abused our good faith and that our **rights were violated** in a very cruel way, and many people were displaced"

"they **took a lot of land from us**";

"this **culture** has been practically **lost**";

"we have got **no support** at all"

"I want a healthy food that does not generate any kind of affectation, neither to the human being nor to the soil, nor to the environment [...]. A **healthy piece of land, clean**, without contamination, where our **culture prevails**, where we are **respected** for being black, where no matter what royalties are given to us, **we are not affected**";



Value

Values

Economic development

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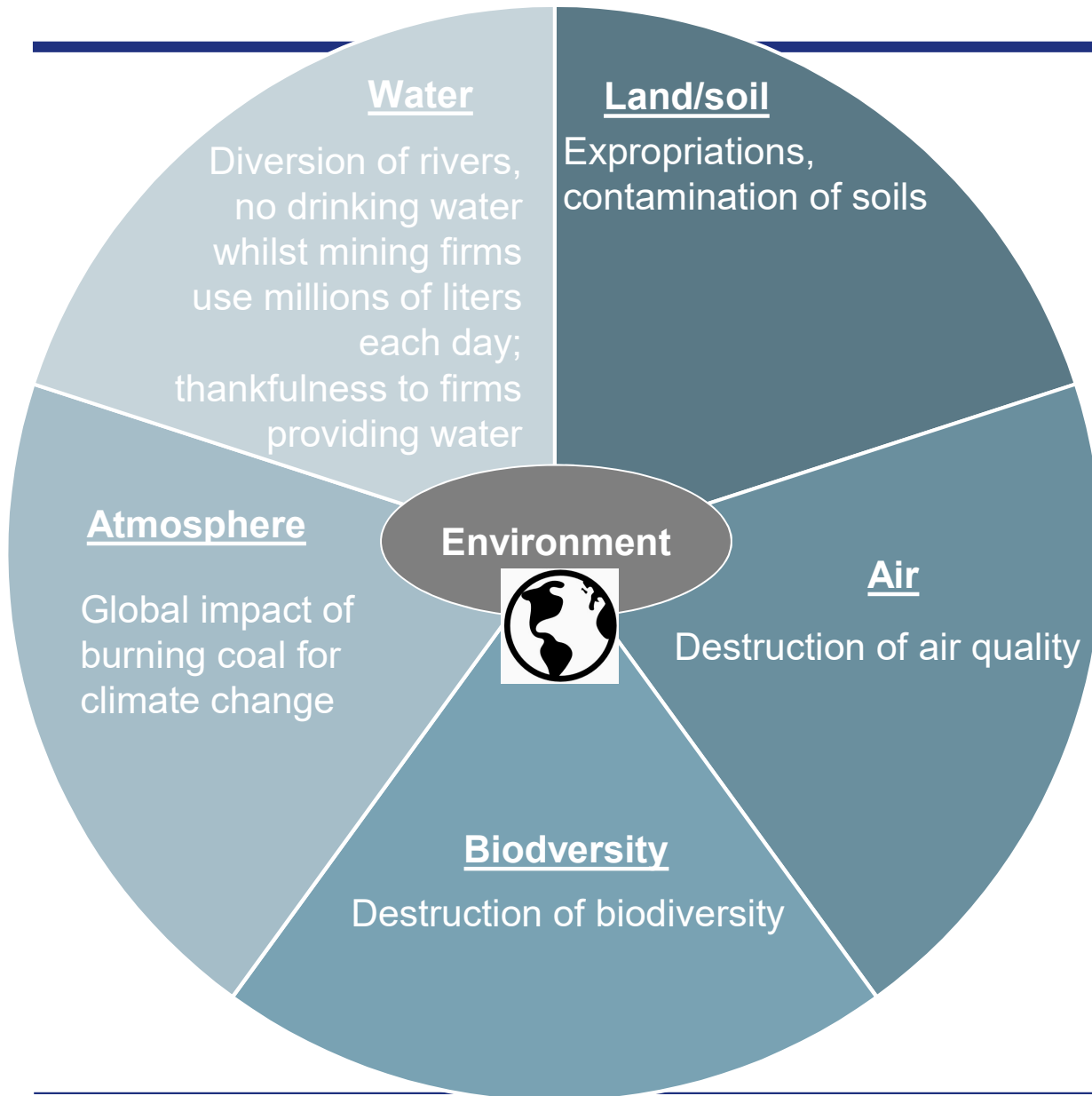
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# Environment



- Externality logic vs. incommensurability/ thresholds that cannot be crossed
- La Guajira: former food& water sovereignty; now malnutrition and health problems; creating bigger dependence on firms and national government to solve crisis, to not hand out more licenses and make corporations liable for clean up and compensation

## It's more complicated than that...

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However, many problems reach a lot further back than the mine opening, but are still linked to it:

- Colonial history Spain
- Slave trade
- Guerrilla/paramilitary/military conflicts
- Drug wars
- Racism
- Different indigenous/afro-colombian populations, all with inner and in-between conflicts (“tierra en conflicto”)
- Machismo
- Corruption
- ...



# Conclusions

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- Using only neoclassical and monetary approaches excludes a large share of **relevant values** when analysing impacts of coal mining.
- ***Locally, coal mining in Colombia destroys peoples access to basic human rights such as territory, access to a home, food, water, air, health. Coal mining contributes to the violent conflicts and increases injustice in the regions. Coal provides only very few well-paid, but mostly unhealthy jobs for Colombians, globally it contributes to the acceleration of the climate catastrophe and biodiversity loss. Benefiting are few multi-national corporations, their shareholders and few politicians, disadvantaged are everyone else.***

## ▶ **Relevant for decisions about new mines, e.g. lithium and copper, or other infrastr. projects**

- Alternative economic approaches can account for: Sense of territory, political rights, quality of work and education, environmental integrity, cultural values, ... Inclusion of **plural values need to become a renewed focus in economic thinking and (policy) decision making.**
- Need for other indicators such as GDP, no. of employees, etc.; need to go beyond strong **comparability assumptions of neo-classics towards incommensurability** (e.g. **acceptability for various qualitative and quantitative indicators, “veto thresholds”**).
- Next to a **value extraction vs. value creation debate**, one needs to include **value preservation.**

# Forget GDP — New Zealand is prioritizing gross national well-being

The country's new "well-being budget" emphasizes citizen happiness over capitalist gain.

By Sigal Samuel | Jun 8, 2019, 8:00am EDT



Treasury NZ (2019); VOX (2019)

# Work in progress: Feedback welcome

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## About what is missing:

- Literature
- Concepts/theories
- ....

## Any other ideas and feedback



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**Hanna Brauers**  
**[hbr@wip.tu-berlin.de](mailto:hbr@wip.tu-berlin.de)**

Research Associate at Technical University Berlin,  
Workgroup for Infrastructure Policy (WIP),  
Junior Research Group CoalExit  
and Guest Researcher at the  
German Institute for Economic Research (DIW Berlin)



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