

From commercial success to neoliberal fiasco:

The social impact of gas extraction in the province of Groningen

Cedla in Stad
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Kennisplatform
Leefbaar en Kansrijk
Groningen

[Earthquakes Europe's gas field | Aardbevingen Groningen | Erdbeben Europas Gasfeld \(dwarshuis.com\)](http://dwarshuis.com)

About me



This PhD:

- Transitional justice
- Reconciliation
- Groningen history and culture



The Knowledge Platform

Social impact of mining and energy projects



The Knowledge Platform

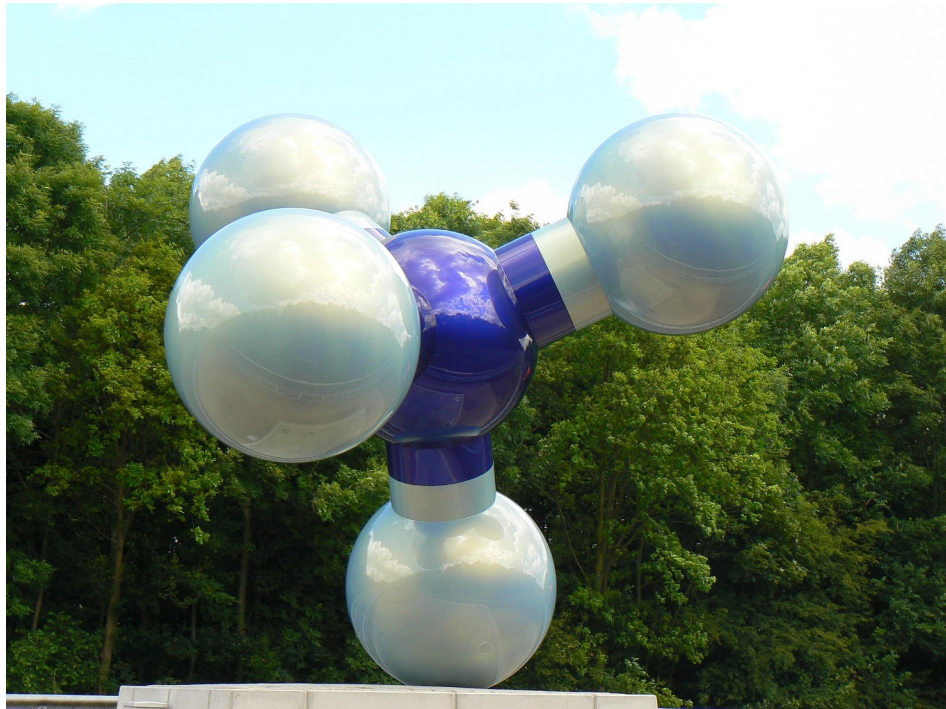
3 themes:

- Societal impact
- Recovery
- Lessons

- <https://en.kennisplatformleefbaar.nl/stand-van-kennis-2021>



Setting the scene



2009: Artwork celebrating the 50 years of gas extraction in the Province of Groningen.



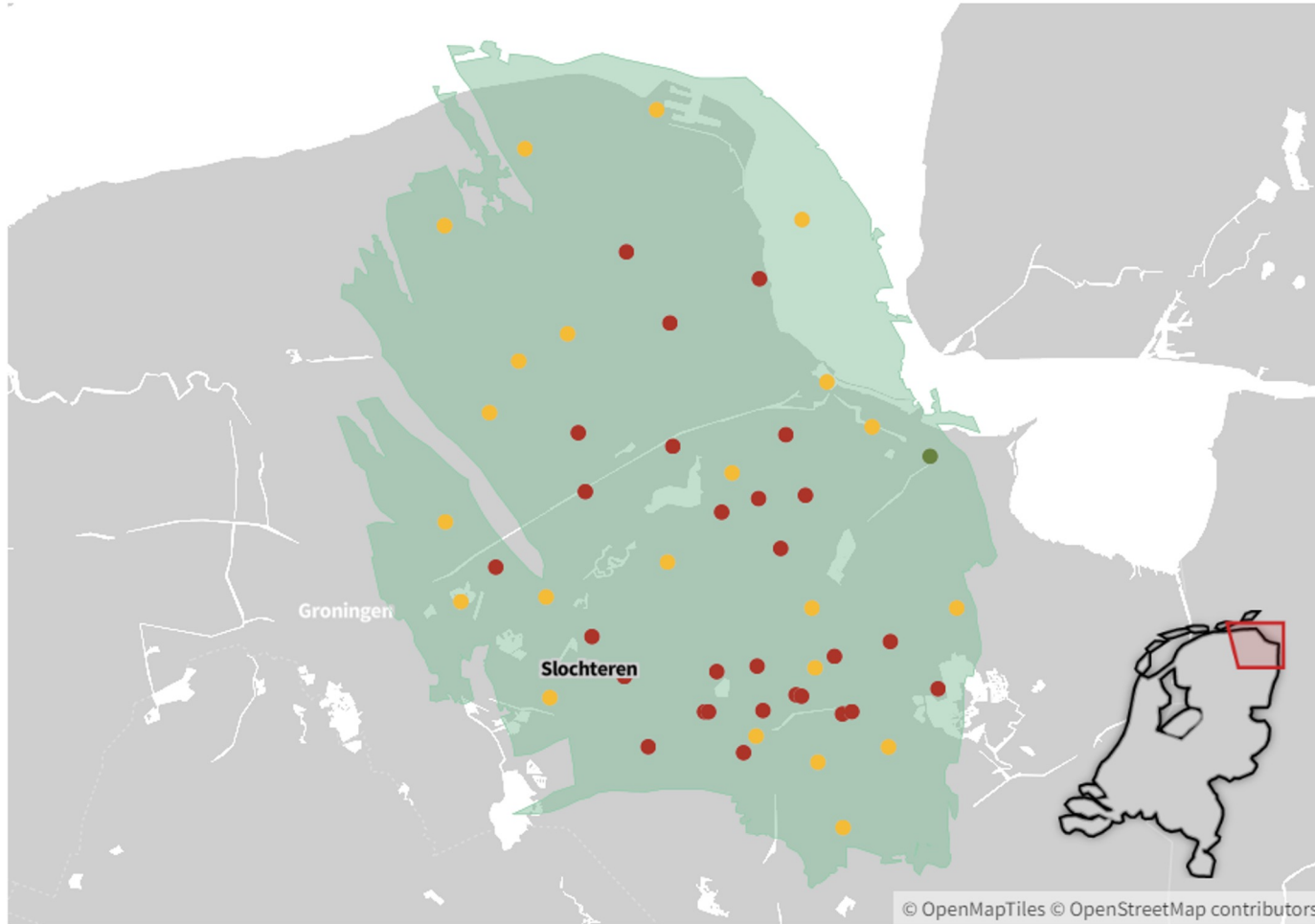
2019: Artwork symbolising the negative impact of the gas extraction.

This presentation

- The Groningen gas field
- Societal impact of the gas extraction
- Lessons learned and challenges ahead
 - The Parliamentary Inquiry

History and characteristics

Locatie Groningen-gasveld



History and characteristics

- 1959: The Groningen gas field discovered.
- 1963: start commercial production

The Groningen field:

- 3 km depth, in a porous layer of sandstone.
- 900 km²
- 2740 billion m³ gas
- Top 10 gas fields – biggest of Europe.
- More than 80% depleted (Shell, 2023)

History and characteristics

- Relatively low extraction costs
- Densely populated (410000 people in seismic area)
- Operated by public private partnership of Shell, Exxon and State
- These share profits:

Revenues national government

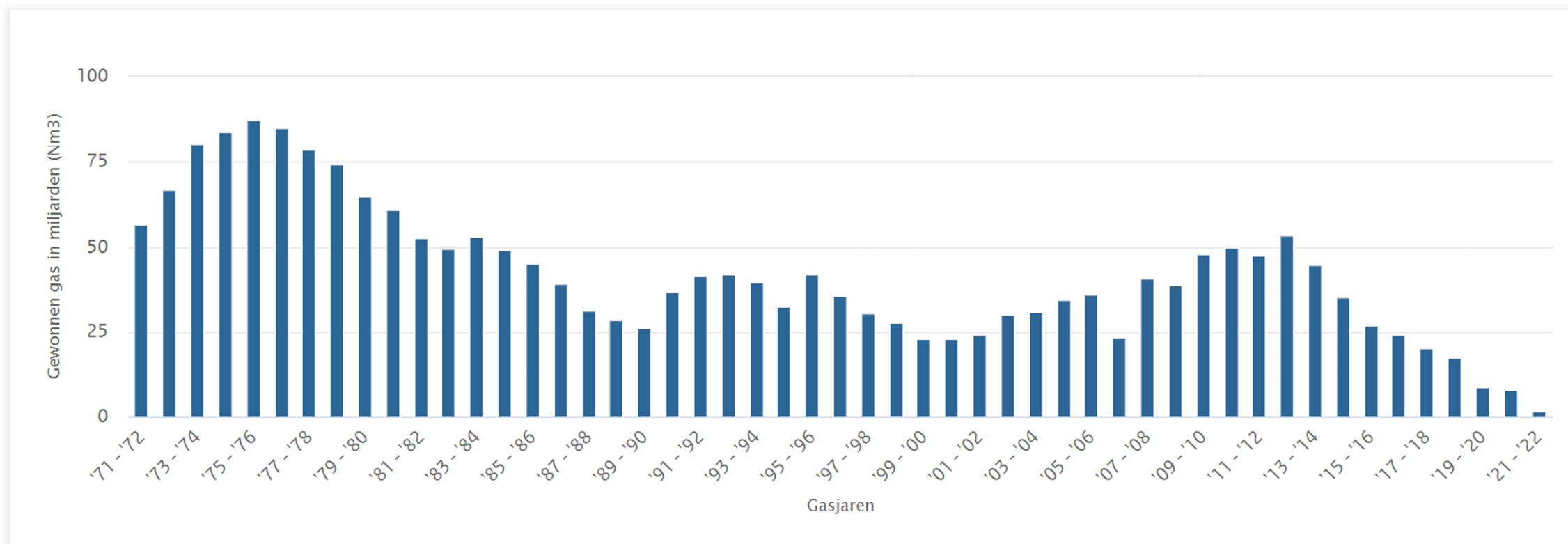
- sale of gas;
- share in NAM profits;
- royalties;
- taxes and fees;
- dividends.

(Van der Voort & Vanclay, 2015)



Benefits and wealth

Jaarlijks gewonnen gas uit het Groningenveld



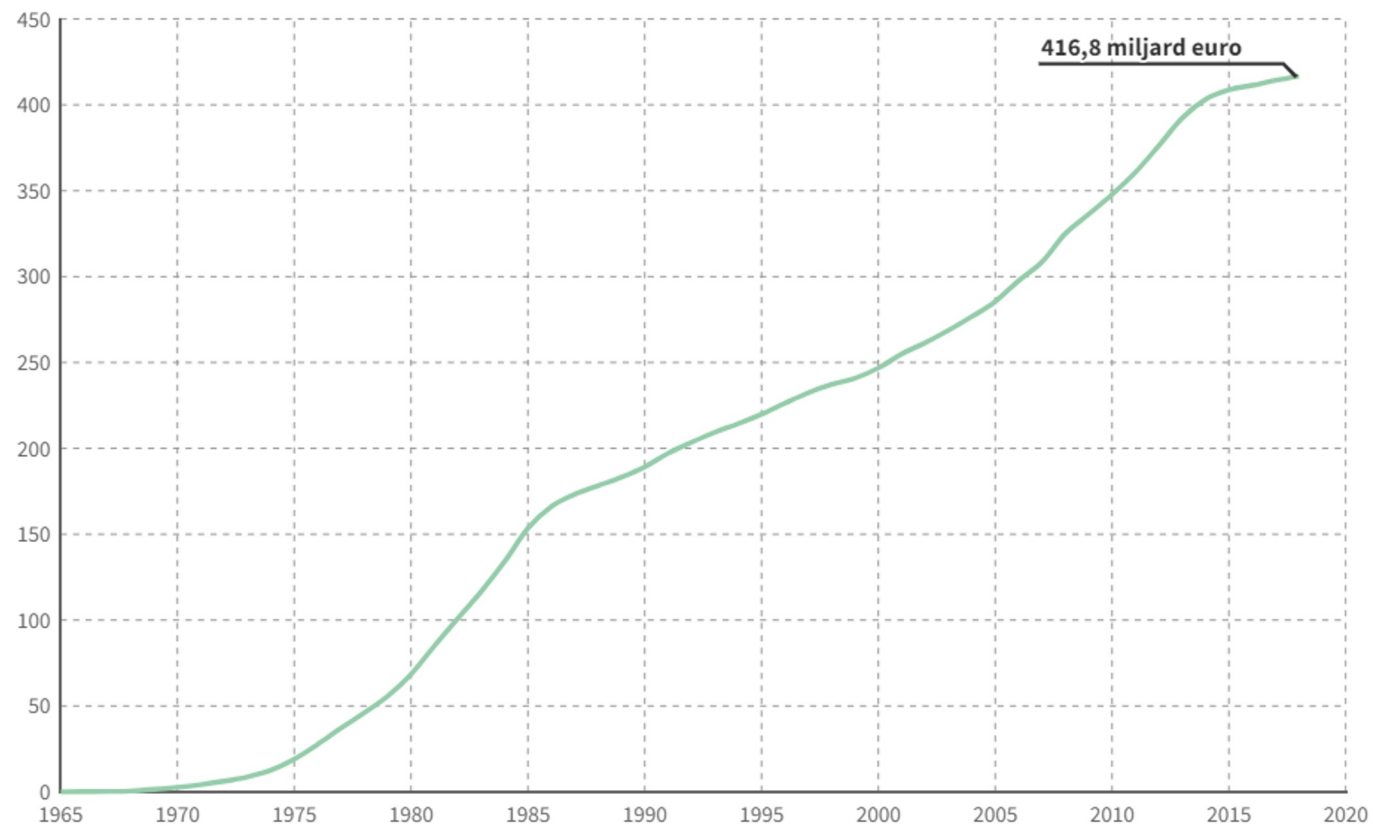
Bron: NLOG

Laatst bijgewerkt: 26-04-2022

Benefits and wealth

Cumulatieve aardgasbaten overheid, in miljarden euro's

Omgerekend naar prijsniveau 2018



Bron: [CBS](#)

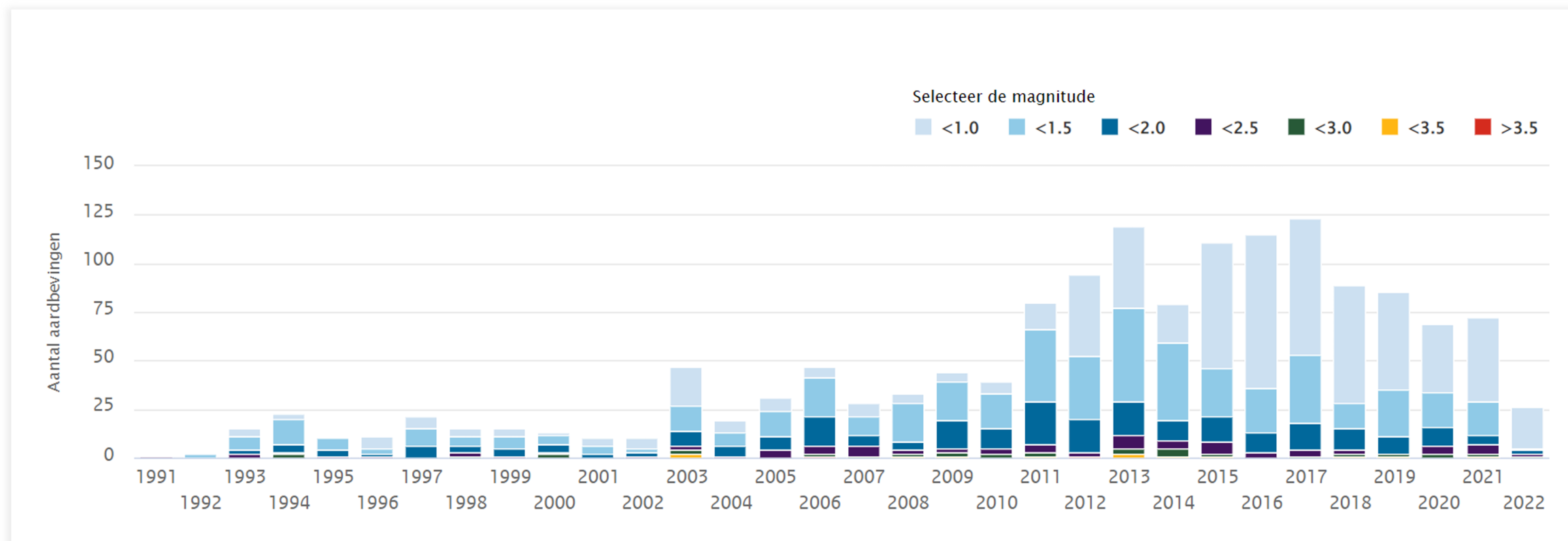
Credit: NRC, 2022

Benefits and wealth

- Large infrastructural works paid from revenues.
- Only 1% to Groningen (Instituut voor Onderzoek Overheidsuitgaven, 2006).
- Caused the economic phenomenon called 'Dutch Disease'.

Earthquakes and soil subsidence

Aantal aardbevingen in het Groningenveld



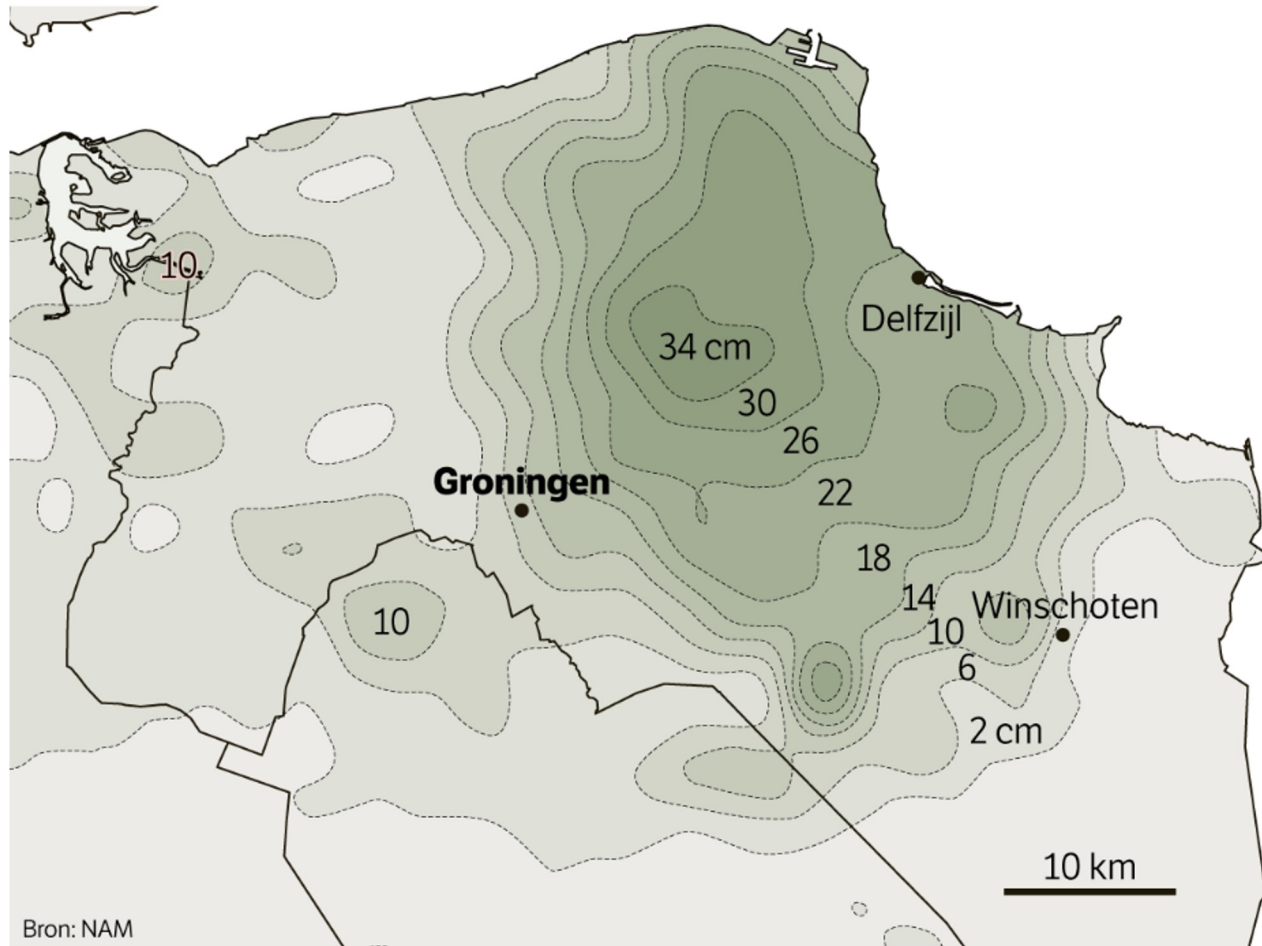
Bron: KNMI

Laatst bijgewerkt: 14-08-2022

Earthquakes and soil subsidence

Bodemdaling door gaswinning vanaf de start van de gasproductie tot 2018

Gemodelleerd op basis van beschikbare waterpasdata van 1964 tot 2018



Bron: NAM

Credit: NRC, 2022

Damages, unsafety and controversy

- Earthquakes are not part of the traditional *hazardscape* of the Netherlands (Bakema et al., 2018).

Early warnings...

1963: engineer Willem Meiborg

1986: first earthquake.

1986: Geographer Meent van der Sluis

...

2022: parliamentary inquiry committee shows how insights of many scientists were ignored and manipulated for decades (PEAG, 2022).

Damages, unsafety and controversy

Denial by NAM and Dutch government:

1. Causal links gas extraction and earthquakes.
2. Earthquakes cause damage.
3. Earthquakes cause safety issues.

2009: Groninger Bodembeweging established to represent the interest of residents.

2012: turning point is an earthquake with M3,6 on the Richter scale, epicenter is the village of Huizinge.

Damages, unsafety and controversy

Mitigation strategies

- Identify buildings at risk + reinforcement.
- Reduction gas extraction only in 2014.
- 2019 decision to stop gas extraction: either 2023 or 2024.

Responsibilities

- NAM: damage repair and reinforcement.
 - > Not transparent and impartial.
- 2015: burden of proof changed.
- 2020: national government takes over responsibility.

NOS Nieuws • Donderdag 29 maart 2018, 19:29 •
Aangepast donderdag 29 maart 2018, 19:29



Hoe Wiebes tot historisch besluit kwam om gaskraan dicht te draaien

De Groningse gaskraan [gaat helemaal dicht](#) en minister Wiebes maakte vandaag bekend hoe hij dat wil doen. Er komt een stikstof-installatie om buitenlands gas geschikt te maken voor gebruik in Nederland.

De komende jaren wordt de gasexport naar het buitenland teruggeschroefd. Binnen twaalf jaar moet de gaskraan helemaal dicht zijn. Na jarenlang wikken en wegen is dit het definitieve besluit. Hoe kwam dat precies tot stand?

NOS Nieuws • Dinsdag 10 september 2019, 12:14 •
Aangepast dinsdag 10 september 2019, 13:09



Gaswinning Groningen stopt al in 2022

Het kabinet wil dat er veel eerder een eind komt aan de gaswinning in Groningen dan eerder was gepland. Minister Wiebes gaat nu uit van medio 2022. Eerder was nog sprake van 2030. Wiebes zegt verder dat de gaswinning volgend jaar al onder het 'veilige niveau' van 12 miljard kubieke meter komt, namelijk 11,8 miljard, in plaats van de eerder gedachte 15,9 miljard.

Damages, unsafety and controversy

GOVERNANCE

- Safety – reinforcement
NAM > *Centrum voor Veilig Wonen (CVW)* > **Nationaal Coördinator Groningen (NCG)**
- Damages, material and immaterial – compensation
NAM > CVW > *Tijdelijke Commissie Mijnbouwschade Groningen (TCMG)* > **Instituut Mijnbouwschade Groningen (IMG)**
- Future perspective – investments
Nationaal Programma Groningen (NPG)



Instituut
Mijnbouwschade
Groningen



nationaal programma
groningen

Current situation

Earthquakes

- Gas extraction will stop in Oct '23 or '24.
- Even if gas extraction stops, earthquakes may continue for decades.

Societal impact

- Not merely a technical or financial problem, but a societal problem:
 - Bureaucracy, inequality and insecurities.
- Constant changes in the institutional landscape make governance a problem (Bovenhoff et al., 2021).
- Not recognizing the problems made it worse.

Societal impact of the gas extraction

Material damage

- a) Unsafety
- b) Damages
- c) The housing market and economic developments

2. Immaterial damage

- a) Policies and communication
- c) Health and wellbeing

Material impact

- 410,000 residents exposed to induced earthquakes.
- Buildings are unsafe and/or damaged:
houses, schools, churches etc
- Buildings need fortification and/or damage repair.

Approach:

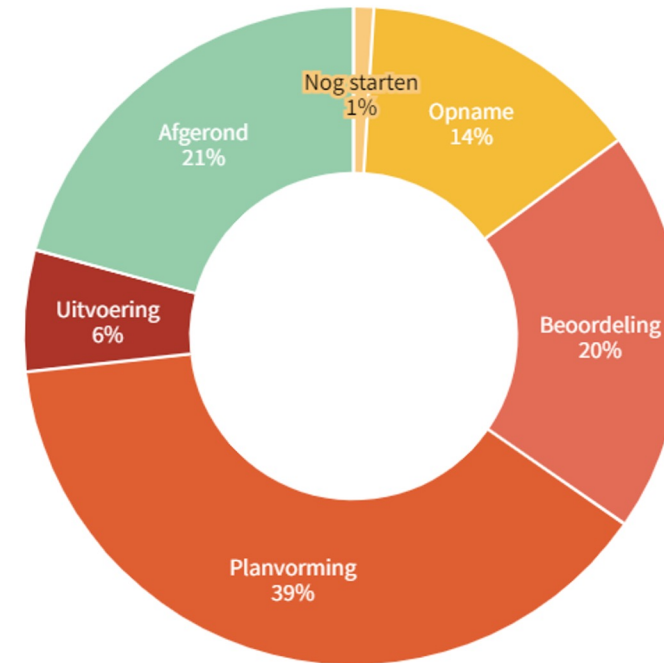
- Focus on technical solutions.
- Inspection costs €10.000 – €100.000 (reinforcement).
- 60–70c per euro spent go to bureaucracy.



Unsafety

- More than 27.000 buildings need to be inspected.
- Discrepancy between predictions from models and the outcomes of inspections.

Verdeling adressen over de versterkingsfasen, stand 30 juni 2022
Totaal 27.181 adressen



Bron: [NGC](#)

■ Nog starten: Het versterkingstraject is nog niet gestart

■ Opname: Verzamelen bouwtechnische gegevens

■ Beoordeling: Voldoet het pand aan de veiligheidsnorm?

■ Planvorming: Voor adressen die niet aan de veiligheidsnorm voldoen

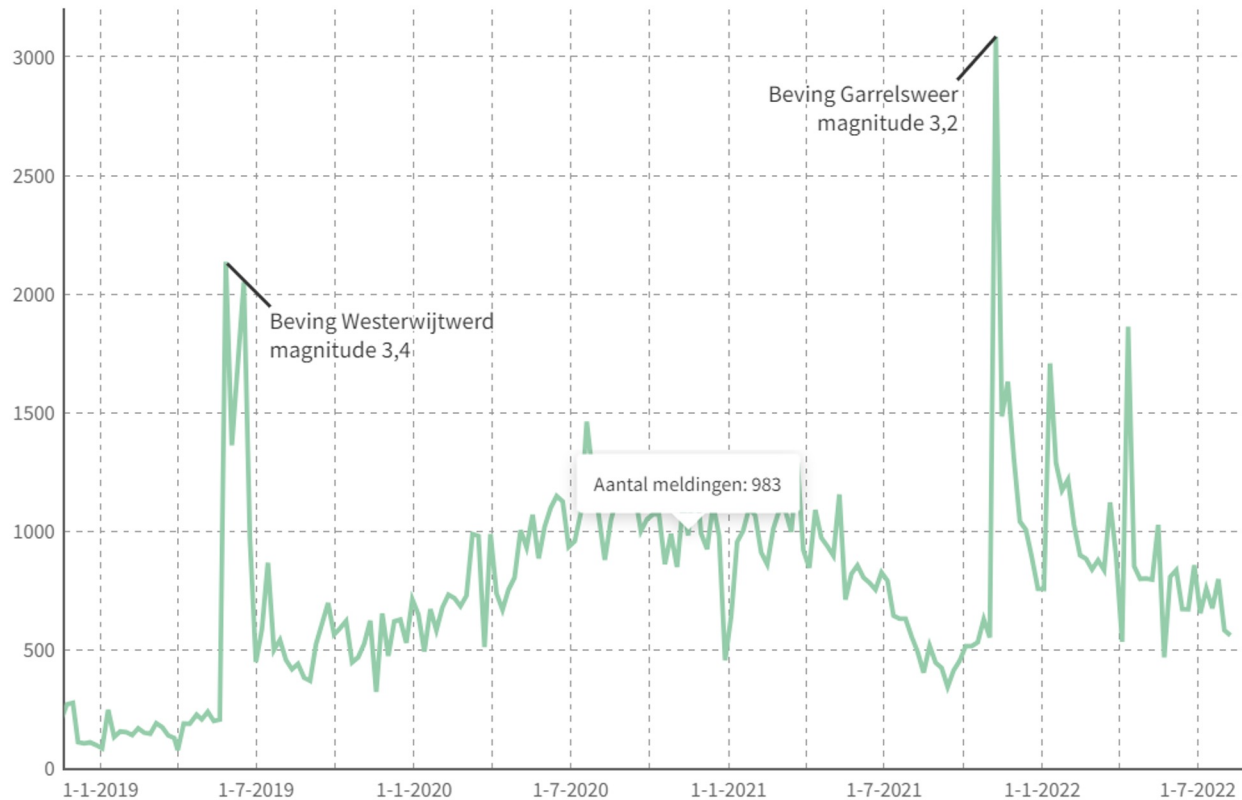
■ Uitvoering: De eigenaar is akkoord met het versterkingsplan

■ Afgerond: Adres voldoet al aan veiligheidsnorm, het pand is versterkt, of wordt gesloopt

Credit: NRC, 2022

Damages

Nieuwe schademeldingen per week



Bron: [IMG](#)

- New damages claims, especially after earthquakes.
- 20.000 damage claims still pending.
- 2,5 years before decision on damages is made.

(See [Dagblad van het Noorden](#), November 7, 2022.)

- Responsible: *Instituut Mijnbouwschade Groningen (IMG)*

Credit: NRC, 2022

The housing market and economic impact

- Distorted housing market.
- Investments in the region.
- Economic impact on households.





Immaterial impact

- Time- and energy consuming processes:
Bureaucracy.
Repairs and reinforcement.
- Temporary displacement of people.
- Inequalities and loss of social cohesion.
- Long-term insecurity.



Health and wellbeing

- *Gronings Perspectief*: quantitative and qualitative studies
- Chronic stress, fear, insomnia, depression.
- Frustration and powerlessness.
- People with multiple damage claims feel significantly less safe (Stroebe et al., 2022)
- Children and young people experience similar health impact as adults.
- Mistrust between citizens and government (and everyone else)



Challenges ahead and lessons learned

- Restoration of relations and regaining trust
- Lessons learnt
- The Parliamentary Inquiry

Restoration of relations and regaining trust

- Relationships between citizens, governments and industry impacted by
 - denial of problems
 - broken promises
 - systemic changes
 - radical shifts in policy
 - years of uncertainty
- Reconciliation and restoring trust vital.



Lessons learnt

- Money is not the solution.
- Solution must be moral and ideological.
- Participation and dialogue on different levels.
- Integral approach to the restoration of safety and damages.
- Non-repetition must be assured.
- SIA beforehand. SLO crucial.



The Parliamentary Inquiry



Parliamentary Inquiries: what are they? What can they become?

- Triggered by Parliament (House of Representatives, nd)
- Participation is **mandatory** and **under oath**
- Most serious instrument to inform Parliament better and enhance the quality of law-making (Muller & Coenen, 1997)
 - To initiate debates
 - To inform Parliament better
 - Control & evaluate policy
 - Political gain
 - Focus attention on policy issues
- In the past: mostly informative role. Later, political chopping block. Today: complex systemic failures and restoring social cohesion (Wolffram, 2010)
- Eg: Dutch participation in Srebrenica, toeslagenaffaire, Bijlmer disaster, corona

Parliamentary Inquiry: main findings

- Relationships between all actors are damaged
 - Policy solutions haven't improved the reality on the ground enough
 - Responsibility was kept diffuse — often on purpose
 - Local and regional governments have failed to represent its people sufficiently at critical moments
 - Unhealthy collusion between government and industry
 - **Financial gain was put consistently above the interest of Groningers**
-
- Gov't presented a plan as a response to the report
 - Will this government fall? What will the report achieve?

Vroagn?

Dank & moi eem!

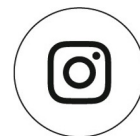


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