Prof. Dr. Thomas Schmitz Semester 1, 2026/2027

GLOBALISATION AND THE ENVIRONMENT
- APPROACHES IN EUROPEAN AND GERMAN LAW -

Contribution to the course Globalization and Environment (LL.M)
Contribution to the course Globalisasi dan Lingkungan Hidup (MIH)

Contents

Preliminary remark: At the Faculty of Law of Universitas Gadjah Mada the courses are shared by several lecturers. This table informs about my six lectures in the courses "Globalization and Environment" (LL.M program) and "Globalisasi dan Lingkungan Hidup" (MIH) in Semester 1, 2026/2027. They complement those of my colleague *Dr. Wahyu Yun Santoso* from a comparative perspective.

§ 1 Introduction: The European and German perspective on globalisation and the environment

I. The commitment to an open market economy with free competition in the European internal market
II. The commitment to globalisation, international trade and multilateral, rule-based international cooperation
III. The commitment to the protection of the environment and the climate
IV. The purpose of the law to serve both, economy and environment
V. The law relating to economy, trade and the environment in the middle of the political struggle

§ 2 Ambitious enough? General climate protection law

I. Backgrounds
II. The EU Regulation on the Governance of the Energy Union and Climate Action (EU Governance Regulation) of 2018 (Regulation 2018/1999)
III. The EU Effort Sharing Regulation of 2018 (Regulation 2018/842)
IV. The European Climate Law of 2021 (Regulation 2021/1119)
V. The German Federal Climate Action Act [Bundes-Klimaschutzgesetz] of 2019
VI. An unclear perspective: The sudden rise and fall of popular support for climate protection in the 2020s

§ 3 A trend-setting approach to reconcile industrial production and the environment in times of globalisation: emissions trading law

I. Clarification of terminology
II. Backgrounds
III. The concept of reducing greenhouse gas emissions through a limited market of tradable emission allowances
IV. The EU Emissions Trading System in the energy, industry, aviation and maritime transport sectors (EU ETS 1) and its implementation in German law
V. The temporary additional German fuel emissions trading system in other transport sectors and the heating sector
VI. The postponed EU Emissions Trading System for fuel emissions in the building, road transport and other sectors (EU ETS 2)
VII. Problems and perspectives of emissions trading law

§ 4 An innovative approach for greenhouse gas emissions-free energy supply as basis for sustainable growth in the future: renewable energies law

I. What are renewable energies?
II. The importance of renewable energies for a greenhouse gas emission-free energy supply
III. The EU Renewable Energy Directive (RED) (Directive 2018/2001)
IV. The German Renewable Energies Act 2023 [Erneuerbare-Energien-Gesetz 2023]
V. In particular: the integration of private photovoltaic installations into the electricity grid and the remuneration claims of their operators for electricity fed into the grid (sect. 19 - 21 REA)
VI. Practical problems and perspectives of the current renewable energies law
VII. Anti-fossil fuel measures complementing the renewable energy law
VIII. An interesting perspective for the Global South: towards a green hydrogen law?

§ 5 A controversial approach to fight deforestation worldwide: anti-deforestation law

I. The problem of worldwide deforestation and forest degradation despite bold commitments
II. The EU Regulation on Deforestation-free Products (EUDR) of 2023 (Regulation 2023/1115)
III. The controversy surrounding the Anti-Deforestation Regulation in the Global South
IV. The softening of the Anti-Deforestation Regulation in December 2025
V. Discussion: How to protect the rainforest effectively without patronising the Global South and placing the burden lopsidedly on it?

§ 6 Multi-level and cross-sectoral: marine conservation law

I. Backgrounds
II. International law on marine conservation
III. European Union law on marine conservation
IV. German law on marine conservation

More information on this course contribution at www.thomas-schmitz-yogyakarta.id. For any questions, suggestions and criticism please contact me via WhatsApp (+62 812 9824 3441) or e-mail (tschmit1@thomas-schmitz-eu.de) or in my office (Building A, room A.VI.11).

Prof. Dr. Thomas Schmitz Semester 1, 2026/2027

GLOBALISATION AND THE ENVIRONMENT
- APPROACHES IN EUROPEAN AND GERMAN LAW -

Contribution to the course Globalization and Environment (LL.M)
Contribution to the course Globalisasi dan Lingkungan Hidup (MIH)

Legal sources

A. International law

- United Nations Framework Convention on Climate Change (UNFCCC) of 1992
  - with Kyoto Protocol of 1997 and Doha Amendment to the Kyoto Protocol of 2012
- Paris Agreement (on climate change) of 2015
- United Nations Convention on the Law of the Sea (UNCLOS) of 1982
- Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement) of 2023
- Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) of 1992

B. European Union law

- Treaty on European Union (EU Treaty) of 1992
- Treaty on the Functioning of the European Union (FEU Treaty), originally of 1957
- Effort Sharing Regulation of 2018 (Regulation 2018/842)
  (Regulation 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement)
- Emissions Trading Directive (ETD) of 2003 (Directive 2003/87)
  (Directive 2003/87 establishing a system for greenhouse gas emission allowance trading within the Union)
- European Climate Law of 2021 (Regulation 2021/1119)
  (Regulation 2021/119 establishing the framework for achieving climate neutrality ['European Climate Law'])
- Social Climate Fund Regulation (Regulation 2023/955)
  (Regulation 2023/955 establishing a Social Climate Fund)
- Governance Regulation of 2018 (Regulation 2018/1999)
  (Regulation 2018/1999 on the Governance of the Energy Union and Climate Action)
- Renewable Energy Directive (RED) of 2018 (Directive 2018/2001)
  (Directive 2018/2001 on the promotion of the use of energy from renewable sources)
- CO2 emission performance standards regulation (Regulation 2019/631)
  (Regulation 2019/631 setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles)
- Regulation on Deforestation-free Products (EUDR) of 2023 (Regulation 2023/1115)
  (Regulation 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation; original version/amendments of 19.12.2025)
- Marine Strategy Framework Directive (Directive 2008/56)
  (Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy)
- Water Framework Directive (WFD) of 2000 (Directive 2000/60)
  (Directive 2000/60 establishing a framework for Community action in the field of water policy)

C. German law

- Basic Law for the Federal Republic of Germany (BL) [Grundgesetz für die Bundesrepublik Deutschland - GG] of 1949
- Coal-based Power Generation Termination Act [Kohleverstromungsbeendigungsgesetz - KVBG] of 2020
- Federal Climate Action Act [Bundes-Klimaschutzgesetz - KSG] of 2019
- Fuel Emissions Trading Act [Brennstofemissionshandelsgesetz - BEHG] of 2019, updated 2025

- Greenhouse Gas Emissions Trading Act [Treibhausgas-Emissionshandelsgesetz - TEHG] of 2025 (originally of 2004)
- Renewable Energy Act 2023 [Erneuerbare-Energien-Gesetz 2023 - EEG 2023]
- Law on the Sale of Electricity to the Grid [Stromeinspeisungsgesetz] of 1990 (see now Renewable Energy Act 2023)
- Act Prohibiting the Dumping of Waste and Other Substances and Objects into the High Seas [Hohe-See-Einbrinungsgesetz] of 1988

More information on this course contribution at www.thomas-schmitz-yogyakarta.id. For any questions, suggestions and criticism please contact me via WhatsApp (+62 812 9824 3441) or e-mail (tschmit1@thomas-schmitz-eu.de) or in my office (Building A, room A.VI.11).

(Datei: Legal sources (GlobEnvirEU))

§ 1 Introduction: The European and German perspective on globalisation and the environment

I. The commitment to an open market economy with free competition in the European internal market (art. 119 FEU Treaty)

- not a fundamental value but nevertheless a legally binding guiding principle for the entire economic policy of the European Union and its member states
  - binding all economic legislation and policies of the Union and its member states
  - a decision in favour of an open (not social) market economy with unhindered competition
- a principle requiring a strictly market-orientated economic policy, limiting state interventions to few exceptions (art. 120 FEU Treaty)
  - solutions must be found within the framework of a market-orientated policy (→ no planned-economy policies)
  - however, the market-orientated policy shall "favour an efficient allocation of resources", including natural resources
- a principle implemented and complemented by far-reaching approximation of laws, strict competition law and a prohibition of state aids that would distort competition (art. 114 et seq., 101 et seq., 107 et seq. FEU Treaty)
  - the approximation of laws must aim at a high level of environment protection (art. 114(3)) and therefore is often used to establish higher environmental standards
  - state aids (subsidies) that would distort competition and affect the trade between member states are generally prohibited (with exceptions); compliance is closely monitored by the European Commisstion

II. The commitment to globalisation, international trade and multilateral, rule-based international cooperation

- the European Union and its member states are *members of the World Trade Organization (WTO)* and numerous other international organisations
- they are committed to *international cooperation based on legal rules and the rule of law*,
  - not on the relative power of the "biggest bully" imposing its will on other states
  - this contrasts to the approach of the present "global bullies" USA (under DONALD TRUMP), Russia and China
- they stay committed to *multilateral cooperation in intern. organisations with strong institutions*
  - unlike the three "global bullies" who prefer bilateral cooperation because it allows to take advantage of weaker partners
- they would welcome stronger geo-regional organisations as close partners for cooperation
  - the existing ones (ASEAN, AU etc.) are in their current form too weak for an important role in intern. cooperation

III. The commitment to the protection of the environment and the climate

- not just a political but *legal commitment*

1) Policy objectives as legally binding principles of EU primary law and national constitutional law

- *state policy objectives* [Staatsziele] under the constitution are constitutional principles that substantially guide or limit all policies and activities of all public institutions in the state
- *union policy objectives* [Unionsziele] under the EU treaties (EU Treaty, FEU Treaty) are binding principles of EU primary law that substantially guide or limit all policies and activities of all EU institutions and even the member states when executing EU law

2) Environmental protection, including climate protection, as a European Union policy objective (art. 3(3) EU Treaty, 191 FEU Treaty)

- the EU shall work in all its policies for a high level of protection and improvement of the quality of the environment (art. 3(3) EU Treaty)

- its environmental policy shall pursue the objectives to
  - *preserve, protect & improve the quality of the environment*,
  - protect human health,
  - *utilise natural resources prudently* & rationally and
  - promote international measures, in particular to *combat climate change*,
  - ► always aiming at a *high level of protection* (art. 191(1, 2) FEU Treaty)

3) The protection of the natural foundations of life as a German state policy objective (art. 20a Basic Law [= BL])

> **Art. 20a BL:** Mindful also of its responsibility towards future generations, the state shall protect the natural foundations of life ... by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order.

- a *constitutional value* (though not a *fundamental value*), but with a weak normative design
  - protection only "in accordance with..."/"within the framework of..."
- aims at *protecting the posterity*
- requires *active intervention* by the state (though with wide margin of appreciation & discretion)
- guides the interpretation and application of all German law

4) In particular: the state's duty of adequate climate protection in good time, to preserve the freedom of future generations (art. 20a BL and fundamental rights)

- The spectacular ***climate protection decision of the Federal Constitutional Court*** of 2021 (BVerfGE 157,30)
  - declared some provisions of the 2019 Federal Climate Action Act [Bundes-Klimaschutzgesetz] unconstitutional because they set too low targets for greenhouse gas reduction until 2030 and no targets for the following years and thus *shifted the burden* of the inevitable restrictions on freedom for climate protection *lopsidedly onto future generations*
  - state's duty to protect citizens' life & physical integrity (art. 2(2) BL) encompasses *duty to protect - even future generations - against climate change*
  - state *must* take climate action and aim to achieve climate neutrality
  - ***fundamental rights*** protect as ***intertemporal guarantees of freedom*** also against offloading the burden to reduce greenhouse gas emissions onto the future
    - so citizens can file constit. complaints alleging that insufficient climate action violates their fund. rights; this has triggered a wave of so far unsuccessful constit. complaints
- The innovative but unorthodox approach to instrumentalise fundamental rights today to secure freedom vaguely in the future
  - is an outstanding example of judicial further development of law
  - but leaves the platform of established constitutionalist traditions, approaches and methods
  - and therefore is *controversial* among constitutionalists
  - DISCUSSION: A convincing approach?

    YOUR OPINION: _____.

    YOUR ARGUMENTS: _____.

    _____.

IV. The purpose of the law to serve both, economy and environment

- big parts of the law on globalisation and environment are predominantly economic law or environmental law but serves both purposes
- this *precludes any lopsided understanding*, interpretation or application, as it has been traditionally the case for the experts in both fields of law
  - the need to develop a holistic understanding beyond the traditional ideological lines of economist or ecologist thinking

V. The law relating to economy, trade and the environment in the middle of the political struggle

- the constant profit-driven push by Big Business and their influential lobbies for low standards
  - topical: the lobbying of the European car industry against the ban on combustion engines
  - influential: climate disinformation campaigns
- the hypocritical neoliberal concept of "self-responsibility" and "voluntary self-commitment"
  - an ideological fight against binding standards that restrict business, although reality shows again and again that in face of profit interests the concept of voluntary self-restraint does not work
- the ideological fight of many environmentalists for higher standards regardless of the costs in freedom and of overbureaucratic regulation
  - a strange willingness to work with poorly designed, technocratic laws with small-scaled detailed regulations that provide little progess but cause excessive bureaucratic burden for public administration and businesses
  - the unwillingness of some environmentalists to accept that in the balancing with other public interests these may prevail
  - illegal road and airport blockades and other criminal actions by radical climate activists with a totalitarian approach
- the result: a highly dynamic but also volatile part of the law
  - a high risk that newly enacted laws may already be tigthened, relaxed or replaced in the next legislative period

(Datei: Slide 1 (GlobEnvirEU))

§ 2 Ambitious enough? General climate protection law

[allgemeines Klimaschutzrecht]

I. Backgrounds

- *climate protection* is a collective term for all measures intended to *counteract anthropogenic global warming* (induced by humans), or to avert or mitigate its consequences
  - anthropogenic global warming is caused by *greenhouse gas emissions*, mainly carbon dioxide [CO_2] and methane [CH_4]
  - no climate protection: measures to adapt to the effects of climate change (climate change adaptation)
- *general climate protection law* is the law intended to counteract global warming with a general approach, i.e. without specific measures in specific areas

1) The threat of climate change

- the advancing climate change
  - see for the current status the IPCC's Sixth Assessment Report (AR6 Synthesis Report: Climate Change 2023)
- a fundamental threat to mankind
  - only the threat of a global nuclear war would be worse
  - the prospect of major natural disasters almost everywhere
  - the prospect of heat waves that require new types of buildings and urban design
  - the prospect of diseases spreading to new, previously colder geo-regions
  - the prospect of a global mass migration of climate refugees with the potential to destroy the modern territorial state
  - the threat of a breakdown of human civilisation, economy and society in large areas of the planet

2) The need to reduce greenhouse gas emissions to mitigate climate change

- a fact proved beyond doubts in decades of scientific research in global cooperation
  - most important scientific institution: the United Nations *Intergovernmental Panel on Climate Change (IPCC)*
  - most important scientific source: *IPCC Assessment Reports*
- however, a fact denied by the new U.S. Government and the lobbies behind it
  - contestested in large-scale global disinformation campaigns

3) The global common fight against climate change

a) The UN Framework Convention on Climate Change (UNFCCC) of 1992

- first international treaty on the global fight against climate change
  - ratified by 197 states and European Union
- binding goal to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic interference with the climate system" (art. 2)
- modest climate protection obligations, mainly of the developed countries
  - reporting obligations, financial support for climate action of developing countries
- treaty bodies: annual Conference of the Parties (COP), UNFCCC Secretariat in Bonn

b) The implementation of the UNFCCC by the Kyoto Protocol of 1997/2012

- the Kyoto Protocol of 1997 set *binding emission reduction targets* for the period of 2008 to 2012, which added to an average of 5 % reduction (compared to 1990)
  - 37 industrialised countries, EU and economies in transition participated, but not USA and China
  - Protocol allowed *joint fulfilment of quotas by several countries (bubbling)* and *trading of limited emission allowances*, as long as the overall result was achieved
- the Doha Amendment to the Kyoto Protocol of 2012 set further reduction targets for the period of 2013 to 2020, but was only ratified by the EU, EU member states and few other states

c) The Paris Agreement on climate protection of 2015

- the present international treaty on the global fight against climate change
  - ratified by 193 states and EU (USA have withdrawn again in 2025)
- binding *target to hold increase in global average temperature below 2° C*, preferably 1.5° C, above pre-industrial levels of 1750 (art. 2)
- the targets are missed, but the Agreement is an important vehicle for legal innovations

- states must undertake and communicate "national determined contributions" (national climate action plans) and develop long-term low emission development strategies
- treaty bodies: annual Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), UNFCCC Secretariat

4) The European Green Deal of 2019 (Communication COM/2019/640 final)

- European Union's ambitious holistic response to climate change
- a *comprehensive strategic program* of the European Commission to curb global warming by reducing greenhouse gas emissions until achieving complete *climate neutrality* by 2050
  - "climate neutrality" means a balance between greenhouse gas emissions and removals (no net emissions)
- a *political program*, not binding in itself but envisaging numerous binding legal acts
- key elements:
  - objective to make Europe the *first climate-neutral geo-region by 2050*
    - includes to make it *independent from fossil fuels* and decouple economic growth from resource consumption
  - intermediate target to reduce greenhouse gas emissions already by half by 2030
  - a roadmap for a *complete reorganisation of Europe's economy, energy supply, industries, agriculture and transport* to achieve these objectives
  - promise of *climate justice and fairness*
    - to make the transition fair and inclusive and support those most affected
- financed by a planned total budget of one trillion Euro
- legally implemented mainly by the *European Climate Law* of 2021, but also by numerous specialised legal acts

5) The temporary rise of a strong climate protection movement in the civil society

- from 2018 - 2024 mass climate protests, sometimes accompanied by civil disobedience
  - on the first day of the *global climate strikes* (20.09.2019), around 500 demonstrations throughout Germany
  - mainly a phenomenon among the younger generation
  - protagonists: Fridays for Future (initiated by GRETA THUNBERG), Extinction Rebellion, Last Generation
- some activists radicalised (esp. the "Last Generation")
  - showed a totalitarian approach (tried to enforce their will on others, e.g. car and truck drivers)
  - committed numerous criminal offences to draw attention (blockades, coercion, property damages)
  - were in several cases prosecuted and sentenced to fines or even imprisonment
- climate protests subsided abruptly in 2024

II. The EU Regulation on the Governance of the Energy Union and Climate Action (EU Governance Regulation) of 2018 (Regulation 2018/1999)

- an example that illustrates how national policies are no longer free but coordinated in Europe
  - but draws criticism for being too soft and deficient
- a *common governance mechanism* as central procedural steering instrument for achieving the European Union's energy and climate targets within the *Energy Union* (a framework strategy) and under the Paris Agreement
- focuses on the *five dimensions of the Energy Union:*
  - energy security
  - internal energy market
  - energy efficiency
  - decarbonisation (→ promotion of renewable energies)
  - research, innovation and competitiveness

- provides for the following governance measures of the member states:
  - *long-term strategies* with a a 30-year perspective (art. 15)
    - all 10 years; must be consistent with the EU's climate-neutrality objective
  - integrated *national energy and climate plans (NECP)* (art. 3, 4)
    - for 10 years; must set out their targets, measures & contributions and the policies and measures to achieve them, as related to the five dimensions (art. 3, 4)
  - integrated *national energy and climate progress reports* (art. 17 et seq.)
    - all 2 years; on all their measures and progress in all five dimensions of the Energy Union
  - *annual reports* with greenhouse gas inventories and other information (art. 26)
  - public consultations, regional cooperation and a multilevel climate and energy dialogue (art. 10 - 12)
- an e-platform facilitates reporting and cooperation (art. 28)
- the Europan Commission will monitor and assess the member states' submissions and may issue recommendations (art. 29 et seq.)

III. The EU Effort Sharing Regulation of 2018 (Regulation 2018/842; tightened in 2023)

- long title: Regulation 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement
- *legal obligation* of every member state *to reduce its greenhouse gas emissions annually*
  - on the basis of *annual emission allocations* by the European Commission
  - up to a percentage determined for each state individually in the annex (Germany: 50 %)
  - in order to achieve the EU's overall target of 40 % reduction below 2005 levels until 2030
  - in the sectors energy, industrial processes and product use, agriculture and waste
- compliance facilitated by certain *flexibilities* (art. 5), i.e. the option to
  - borrow from the emission allocation for the following year
  - bank excess parts of the annual emission allocation to subsequent years or
  - transfer parts of the annual allocation to other member states

IV. The European Climate Law of 2021 (Regulation 2021/1119)

- long title: Regulation 2021/1119 establishing the framework for achieving climate neutrality ("European Climate Law")
- the general legal framework to implement the Paris Agreement and achieve climate neutrality in the European Union
- sets binding ***objective to achieve climate neutrality by 2050*** (art. 2, 1st alternative)
  - and even *negative emissions from 2050* (art. 2, 2nd alternative)
- sets binding *intermediate climate target to reduce by 55 % until 2030* (compared to 1990) (art. 4(1))
- orders to set a *second intermediate climate target for 2040* (art. 4(3))
- requires a *Union strategy and national strategies on adaptation to climate change* (art. 5)
  - to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change
- involves a *European Scientific Advisory Board on Climate Change* (art. 3)
- requires *public participation* and a *multilevel climate and energy dialogue*
  - with local authorities, civil society organisations, business community, investors and other stakeholders
- provides for an assessment of progress and measures all five years (art. 6, 7)

V. The German Federal Climate Action Act (FCAA) [Bundes-Klimaschutzgesetz] of 2019

- the centrepiece of German climate protection legislation
  - adopted 2019, tightened up 2021 and 2024
  - refers explicitly to the 2° and 1.5° C targets under the Paris Agreement (sect. 1)

1) The national climate protection targets [nationale Klimaschutzziele] (sect. 3, 4 FCAA)

a) Legally binding targets for a gradual reduction of greenhouse gas emissions until 2030 and beyond

- concrete targets for 2030 (sect. 3 original version) and 2040, 2045, 2050 (sect. 3 revised version)
- gradual reduction through decreasing *annual emission budgets* (sect. 4(1); Annexes 2, 3)
- the FCAA only stipulates the targets; achieving them necessitates flanking special legislation on specific measures in special areas of law (emissions trade, renewable energies, building energy management etc.)

b) The original - restrained and incomplete - climate protection targets

(sect. 3(1), 4(6) original version)

- by 2030 reduction by *55 %*, in comparison with the levels of 1990
- no concrete targets for the years thereafter
  - only authorisation of the Federal Government to regulate targets in an ordinance

c) The declaration of unconstitutionality of these targets by the Federal Constitutional Court (BVerfGE 157, 30)

- for violating *fundamental rights as intertemporal guarantees of freedom*
  - see already supra, **slide 1**, § 1 III.4
- The low target for 2030 and missing concrete targets for the following years do not satisfy the requirement arising from the principle of proportionality that the inevitable emissions reduction to the point of climate neutrality must be distributed over time in a forward-looking manner that respects also the fundamental rights of future generations.
- One generation must not be allowed to consume large portions of the CO_2 budget with a minor reduction effort (!) if this involves to leave subsequent generations with a drastic reduction burden, exposing their lives to comprehensive losses of freedom.
- Further reduction measures must be defined in good time for the post-2030 period, extending sufficiently far into the future.
- This unconventional approach to fundamental rights is controversial.

YOUR OPINION AND ARGUMENTS: _____.

_____.

d) The new - more demanding - climate targets (sect. 3(1, 2) revised version)

- by 2030: reduction by *65 %*
- by 2040: reduction by 88 %
- by 2045: net greenhouse gas neutrality
- by 2050: negative greenhouse gas emissions

2) Instruments of general climate action

- *climate action programme* [Klimaschutzprogramm] of the Federal Government (sect. 9)
  - stipulates the planned measures to achieve the national climate protection targets
  - mandatory within 12 months after the commencement of a legislative term
  - in 2026, the current Climate Action Programme of 2023 was judged insufficient by the Federal Administrative Court and the Federal Government adopted a new Climate Action Programme
- annual *climate action report* [Klimaschutzbericht] of the Federal Government (sect. 10)
  - with forecasts

- involvement of an independent Council of Experts on Climate Change (sect. 11)
  - with scientific functions
  - with own administrative office
  - has published so far 15 scientific reports, statements, opinions etc.
  - **Topical:** Review Report of 15.05.2026 confirms that ***Germany's compliance with emissions budget for 2030 is uncertain and from 2030 a significant target breach is to be expected***.

3) Other approaches

- emphasising the *role model function of public authorities* (sect. 13 et seq. FCAA)
  - they must give *due consideration* to climate protection *in all their planning and decisions* (sect. 13 FCAA)
- encouraging Federation-Länder cooperation for climate protection (sect. 14(2) FCAA)
- a binding target of a *climate-neutral federal administration by 2030* (sect. 15 FCAA)
  - see corresponding targets of a climate-neutral Land administration in supporting climate action acts of the Länder

VI. An unclear perspective: The sudden rise and fall of popular support for climate protection in the 2020s

- climate protests peaked in 2019 and from 2021 to 2023 but subsided in 2024
- climate protection was not a major issue in the German federal election campaign 2025, nor is it in today's political debate (although the consequences of climate change are already being felt)
- the reasons for the decline in public awareness are unclear:
  - geopolitical threats, economic problems, the polarisation of the population?
  - a repulsive effect of the climate protection legislation?
  - the massive disinformation campaigns, the rise of dumb authoritarianism?
  - people's tendency to ignore uncomfortable truths?
  - or is public awareness only suspended until the next catastrophy?
- *current climate protection law* is *only an interim solution*: a convincing legal concept...
  - that combines truly effective climate protection
  - with due respect for freedom and economic needs
  - in a simple, clear and concise law
  - while avoiding bureaucracy

  ...is still waiting to be developed

§ 3 A trend-setting approach to reconcile industrial production and the environment in times of globalisation: emissions trading law [Emissionshandelsrecht]

I. Clarification of terminology

- despite the misleading term, not emissions but limited rights to make emissions are traded
- the correct and precise term would be: "greenhouse gas emission allowances trading law"

II. Backgrounds

- see already supra, **slide 2**, § 2 I
- the need to reduce greenhouse gas emissions to mitigate climate change
- the commitments in the global common fight against climate change
  - the United Nations Framework Convention on Climate Change (UNFCCC) of 1992
  - the Kyoto Protocol of 1997 and its Doha Amendment of 2012
  - the Paris Agreement on climate protection of 2015
- the European Green Deal of 2019

III. The concept of reducing greenhouse gas emissions through a limited market of tradable emission allowances [Emisssionszertifikate]

1) The idea: to require allowances for emissions, create a market for them and make them gradually more rare & expensive

- the innovative idea to utilise market mechanisms instead of direct state intervention to reduce greenhouse gas emissions
  - reconciles need for climate protection with needs of the market economy
  - allows fairer distribution of the burden to those who emit or benefit the most from their emissions
  - prevents unfair externalisation of production costs
  - inspires to look for alternatives to emissions
  - allows decentralised decisions on how emissions can be reduced most cost-effectively
- the dependence of this instrument on an appropriate limitation of the total quantity of emissions (cap) and an appropriate minimum price for emissions
  - even minor changes can render this instrument useless or turn it into a sharp weapon
  - high risk of manipulation through lobbying, nepotism and corruption

2) The development and first implementation of the concept in the USA

- first developed in the 1960s by American scholars
- first implemented in 1990 with the Acid Rain Program of the amended US Clean Air Act

3) The first and model wide-scale implementation of the concept in the European Union

- proposed by the European Commission in 2000, introduced by European legislation in 2003, launched 2005
- first comprehensive emissions trade system in the world, for broad and important sectors for the economy
- development in four phases: pilot phase (2005 - 2007), implementation of Kyoto Protocol (2008 - 2012), implementation of Doha Amendment (2013 - 2020 and later) and after the reform of 2023 (since 2023)

IV. The EU Emissions Trading System in the energy, industry, aviation and maritime transport sectors (EU ETS 1) and its implementation in German law

1) Regulation in a European Union directive plus national law

- Two-level regulatory system: The EU *directive* sets general rules that do not apply directly but need to be *implemented in the legal order of the member states*. It is binding, as to the result, but leaves choice of form and methods to the national authorities (cf. art. 288 sub-sect. 3 FEU Treaty).
- So the European emissions trading follows the same concept but can be different in detail in the various member states.
- A coherent regulation of the basic system in a directly applicable European regulation (art. 288 sub-sect. 2 FEU Treaty) might be more appropriate.

2) The European Union's Emissions Trading Directive of 2003 (Directive 2003/87)

- frequently amended to further develop the ETS; last major reform: 2023
- ***"Cap and trade" system:*** Every year the EU member states issue *emission allowances* to the participating companies. Some are for free, most are auctioned off. Each allowance entitles to emit one ton of greenhouse gas. Each company must submit each year the appropriate number of allowances for the amount of greenhous gas it has emitted. If necessary, it needs to buy more allowances on the market. They are traded at the stock exchange, at special energy exchanges, via brokers (e.g. banks) or directly.
  The quantity of available allowances is limited by the ***"cap"***, a political decision on the maximum amount of greenhouse gases that may be emitted by all participating companies together. The cap is *lowered every year* (from 2005 to 2030 by 62 %) and the rules on the cap are constantly tightened.
  The cap is determined by the national government in cooperation with the European Commission. Since the third period (2013 - 2020) there is a *cap for the whole European Union*, what reduces the discretion of the national governments. In the coming years, the cap will be more and more predetermined by European standards that are already anchored in the European law.
- In 2024, ca. 9.000 installations in the energy sector and emission-intensive industries that accounted for 40 % of the European greenhouse gas emissions participated in the system.
- A *Market Stability Reserve (MSR)* shall counteract allowance oversupply or shortage that could render emissions trading dysfunctional. Every year, the supply of allowances to be auctioned is adjusted to *predefined thresholds of the total number of allowances in circulation (TNAC)*, without discretion of the member states or Commission. Surplus allowances are removed from the market but can be reintroduced later if necessary.
- Participating companies, emission allowances and transfers of allowances are registered in the *Union Registry*, a central European emissions trading register (see Regulation 2019/1122).

3) The German Greenhouse Gas Emissions Trading Act of 2025 [Treibhausgas-Emissionshandelsgesetz] (originally of 2004)

- To release greenhouse gases requires an *emissions authorisation plus* the annual surrender of the necessary *emission allowances* until September of the following year (sect. 4, 7). Plant and airplane operators receive some free allowances in accordance with EU law (sect. 23, 32).
- Operators, companies or responsible persons must determine their annual emissions under an *approved monitoring plan* and submit a *report verified by an accredited test body* to the authority (sect. 5, 6).
- The *emission allowances* are registered in the Union Registry. They are *transferred by agreement plus entry* in the purchaser's account *in the Union Registry* (sect. 8, 9).
- There are special regulations for plant operators, aviation, maritime transport and fuel emissions trading (sect. 19 et seq.).
- The Act is executed by the *German Emissions Trading Authority* [Deutsche Emissionshandelsstelle - DEHSt], a unit of the *German Environment Agency* [Umweltbundesamt - UBA].

V. The temporary additional German fuel emissions trading system in other transport sectors and the heating sector

- the *Fuel Emissions Trading Act* [Brennstofemissionshandelsgesetz] of 2019, updated 2025
- a genuine German "cap and trade" system, complementing EU ETS 1 for emissions resulting from the use of fossil fuels until EU ETS 2 is operational (see infra, VI.)
- a system not directly linked to the greenhouse gas emissions but to the *placing of fossil fuels on the market*
  - lowering fossil fuel consumption in the society by causing higher fuel costs
  - however, emission-intensive enterprises can apply for financial support to cushion the hardship of fuel costs increases
- fuel suppliers must determine and report "their" annual fuel emissions under an approved monitoring plan on the basis of the quantity of fossil fuels placed by them on the market, and surrender the necessary emission allowances (sect. 7, 8)
- The Act is executed by the German Emissions Trading Authority, which also maintains the *National Emissions Trading Registry* [Nationales Emissionshandelsregister]. Under EU ETS 2, the national registry will be replaced by the Union Registry.

VI. The coming EU Emissions Trading System for fuel emissions in the building, road transport and other sectors (EU ETS 2)

- regulated in the new Chapter IVa of the Emmisions Trading Directive
- a new emissions trading system, separate from EU ETS 1, that addresses *emissions from fuel combustion* in buildings, road transport and small industries
- fully operational in 2028 (after one-year postponement); replaces the German fuel emissions trading system (see supra, V.)
- a system also not directly linked to the emissions but to *placing fossil fuels on the market*
- fuel suppliers must have an *emissions authorisation*, determine and *report "their" annual emissions* to the authority and *surrender the necessary emissions allowances*
- all emission allowances will be auctioned
  - a share of the revenues will be used to support vulnerable households and micro-enterprises through a *European Social Climate Fund* of up to 65 billion € (Regulation (EU) 2023/955)
  - member states must use the remaining revenues for climate action and social measures

VII. Problems and perspectives of emissions trading law

- a concept with a *high potential* for a constant, faire and finely adjusted reduction of green-house gas emission, which *could eventually* even *be globalised*, but also with *many "buts"*:
- *more bureaucracy* for enterprises, increasing production costs
  - companies must prepare the annual reports and set up an emission allowances management
- *vulnerability to strong market fluctuations*
  - in case of an economic crisis, the market price for emission allowances will fall so sharply that there is no incentive anymore to reduce emissions
  - in 2014, a dangerous surplus of allowances causing a far too low market price required a sensitive intervention
    - the auctioning of 900 million allowances needed to be postponed (so-called "backloading"); in 2015, they were transferred to the newly created Market Stability Reserve
- *vulnerability to sabotage* by corruption, lobbyists, populists and other rogue politicians
  - even smallest changes in the law, e.g. a significantly increased cap, can render the system ineffective, although it is still functioning
  - see, for example, the criticised postponement of the start of EU ETS 2

- *excessive complexity* can make the system difficult to understand for non-experts, hinder acceptance among the population and foster populist criticism
  - but will also lead to the creation of high-paying jobs for lawyers...
- At present, there is a vivid discusion about the future of the European Emissions Trading System, heavily fuelled by the various lobby groups. In July 2026, the European Commission presented an official proposal for a revision of the Emissions Trading Directive.

(Datei: Slide 3 (GlobEnvirEU))

§ 4 An innovative approach for greenhouse gas emissions-free energy supply as basis for sustainable growth in the future: renewable energies law [Recht der erneuerbaren Energien]

I. What are renewable energies?

- definition: energies obtained from sources that renew themselves in the short term or whose use does not deplete the source
  - clarifaction of terminology: despite the misleading term, not the energies but the energy sources are renewable
- examples:
  - solar radiation energy (in particular photovoltaic energy)
  - wind energy (used by wind turbines or mechanical windmills)
  - hydropower (including wave, tidal, salt gradient and ocean current energy)
  - geothermal energy (from hot springs, geysers, vulcanos; also ambient energy extracted by heat pumps)
  - biomass energy (esp. from biomethane; from energy crops, agricultural crop residues and biodegradable waste)
- note that this energy is available in abundance in Indonesia!
  - esp. wind energy (e.g. at south coast of Java), solar energy, geothermal energy (near vulcanos)

II. The importance of renewable energies for a greenhouse gas emission-free energy supply

- The use of most renewable energy sources is *emission-free*, the use of (deforestation-free) biomass energy at least *emission-neutral* (since greenhouse gas is absorbed during the growth process).
- The use of *solar energy* has *no side-effect*, the use of wind and geothermal energy little side-effects and the use of hydropower much smaller side-effects on the environment than using fossil fuels.
- Note that in Europe the *use of fossil fuels* for energy production, though still very common, is considered dirty and polluting!
  - However, it is more lucrative for big business and therefore still pushed by its influential lobbies...

III. The EU Renewable Energy Directive (RED) (Directive 2018/2001)

- a new directive that replaces an older one of 2009 and has been revised in 2023

1) The firm European commitment to the timely promotion of the use of renewable energy

- the European Union's goal to promote energy production from renewable sources and strengthen its competitiveness on the global renewable energy markets
- the *binding target of a share of at least 42.5 % in 2030* in the EU's overall gross final energy consumption (art. 3(1))
- member states encouraged to joint projects for electricity, heat or cooling production from renewable sources (sect. 9 et seq.)

2) Restrictions on biomass use to minimise negative effects on the biomass raw material market, biodiversity, environment and climate (art. 3(3))

- taking into account that even biomass use, although emission-neutral, has a negative impact on environment and climate
- biomass use and its promotion must comply with a number of sustainability criteria, in particular the *principle of cascading use of biomass* (art. 3(3 - 3d))
  (efficient resource utilisation by using residues and recycled materials)

3) The member states' obligation to establish a framework for adequate promotion of renewable energy (art. 3(4a))

- to foster renewable energy purchase, increase its electricity share and tackle barriers, e.g. in bureaucratic procedures and infrastructure development

4) The member states' obligation to require fuel manufacturers to increase the share of renewable fuels in the transport sector to 29 % by 2030 (art. 25(1))

- for a higher share of biofuels, green hydrogen fuel, electrofuel

IV. The German Renewable Energies Act 2023 [Erneuerbare-Energien-Gesetz 2023]

- serves to implement the Renewable Energy Directive and other European Union law
- frequently amended in detail, most recently 12.2025

1) The pioneer predecessor: the Law on the Sale of Electricity to the Grid of 1990 [Stromeinspeisungsgesetz]

- regulated for the first time the obligation of electricity suppliers to purchase and compensate for electrical energy from renewable sources

2) The replacement by a frequenetly updated Renwable Energies Act (2000 - 2023)

- with changing concepts of compensation for electricity fed into the grid

3) The present Renewable Energies Act 2023 (originally of 2000)

a) The aim of transformation to a sustainable, greenhouse gas-neutral power supply entirely based on renewable energies (sect. 1(1))

- an aim also supported by the Electricity and Gas Supply Act [Energiewirtschaftsgesetz] (cf. sect. 1(1))
- the *target* of a renewable energy *share in electricity consumption of 80% by 2030* (sect. 1(2))
  - actual share in June 2026: 64 %
- ambitious, detailed expansion plans for onshore and offshore wind turbines and solar plants, less ambitious plans for biomass plants (sect. 4)
- individual consumers know their personal shares, since the *electricity bill lists* the *proportion of electricity from renewable sources* in their consumed energy mix (sect. 42 Electricity and Gas Suppy Act)
- after *Germany's coal phase-out decided for 2038*, emission-neutral electricity supply shall be achieved in a purely market-driven way (sect. 1a))

b) The renewable *energy privilege*

- the construction and operation of renewable energy installations are by law in the *overriding public interest*, serve public health & security and must be prioritised in balancing processes under the law (sect. 2)
- this can speed up planning and authorisation procedures for such facilities

c) Promotion of hydrogen-based electricity (sect. 28f, 28g, 39o - 39q)

- of innovative concepts with hydrogen-based electricity storage
- of facilities for electricity generation from green hydrogen (hydrogen produced by electrolysis of water with electricity from renewable sources)

V. In particular: the integration of private photovoltaic installations into the electricity grid and the remuneration claims of their operators for electricity fed into the grid (sect. 19 - 21 Renewable Energies Act)

- a revolutionary approach allowing every citizen to contribute himself to the transformation of the energy supply system
- has made the use of renewable energy popular in Germany

1) The right to connect one's photovoltaic installation to the public electricity grid (sect. 8)

- has fostered the development of a broad spectrum of photovoltaic sytems, from rooftop solar systems on private homes to industrial-scale solar power parks
  - trendy in 2024: balcony power plants on the balconies of apartments (which the landlord must tolerate...)

2) The claim for remuneration against the electricity grid operator for electricity fed into the grid (sect. 19 et seq.)

- a financial claim for 20 years for feed-in renumeration [Einspeisevergütung], tenant electricity surcharge [Mieterstromzuschlag] or market premium [Marktprämie]
- alternatively, the operator can opt for direct marketing
- the claim is directed against the grid operator, not the electricity provider, and therefore not offset against the electricity charges
- disputes can be settled at a special *clearing center* [EEG-Clearingstelle]
- details change frequently due to frequent legislative amendments

VI. Practical problems and perspectives of the current renewable energies law

- German Renewable Energies Act effective, but only a transitional solution
  - therefore claim duration of 20 years too long
- high number of small photovoltaic installations feeding into the grip at the same time can cause technical problems
- photovoltaic installations not effective in the evening, when they are most needed
- *lack of efficient large-scale storage solutions* for the energy generated from renewable sources
- *high demand for overland power lines* to transport electricity from wind energy to industrial and densely populated areas
- resistance and floods of lawsuits of parts of the population who demand effective climate action but do not accept wind turbines or overland power lines in their own neighbourhood
- *Political threats and resilience:*
  - plans of the Federal Minister for Economic Affairs and Energy, a radical fossil fuel lobbyist, have cluminated in a *draft bill of 29.07.2026* for a revision of the Renewable Energies Act
  - the bill provides for *massive cuts to the renewable energy subsidies*, especially for the popular rooftop solar panels, the limitation of the fed-in energy to 50 % and other restrictions
  - the bill has met heavy criticism, also among experts; environmental organisations, industrial associations and also the German Länder have announced resistance
  - given the popularity of solar energy subsidies, esp. for rooftop panels, it is uncertain whether this bill can be passed without significant amendments
  - given the high popularity of solar energy, the withdrawal of subsidies will slow down but not stop the rise of this technology
  - even if the Renewable Energies Act is undermined, the 2023 version remains a model for effective legislation to accelerate the transition to climate-friendly energy supply

VII. Anti-fossil fuel measures complementing the renewable energy law

1) Germany's coal phase-out

- ending the use of coal as energy source
- 2007: *Law on Financing the End of Subsidized Hard Coal Mining by 2018*
  - caused the immediate end of hard coal mining after the expiration of the last subsidies in 2018
- 2020: *Coal-based Power Generation Termination Act* [Kohleverstromungsbeendigungsgesetz]
  - power generation from hard coal and lignite is continuously reduced and will end in *2038*

2) The European ban on combustion engines in new cars from 2035 and its watering down (→ Regulation 2019/631)

- since an amendment of 2023, art. 1(5a) lit. a Regulation 2019/631 effectively prohibits the registration of new passenger cars and light commercial vehicles that emit greenhouse gases in the EU from 2035
- environmental associations have celebrated the ban as important step forward for climate protection
- however, many European, especially German car manufacturers have failed to develop electric vehicles that are competitive with their Asian, in particular Chinese rivals
- in 2025, European car manufacturers, led by Mercedes, but also BMW and the Japanese producer Toyota, launched an intense lobbying campaign for revearsal of the ban, while others who had modernised their products, such as Hyunday, supported it
- after intensive lobbying of the German Federal Government, the *European Commission proposed* in December 2026 a *signifikant relaxation* of the regulations, which will allow a further registration of new cars with hybrid systems or e-fuel motors
  - the present German Federal Government propagates "Technologieoffenheit" ["openness to all technologies" - including in principle those that damage the climate or the environment and the continuous use of fossil fuels
  - until August 2026, the proposal of the European Commission has not been implemented, but an amendment of Regulation 2019/631 is expected until the end of the year

VIII. An interesting perspective for the Global South: towards a green hydrogen law?

- so far there is still little use of hydrogen-based power in Germany as elsewhere in the EU
- green hydrogen (see supra, IV.3.c) is rare in Europe because its electrolytic production requires too much electrical energy, but it could easily be produced in the Global South by solar power
- storing solar-generated energy in green hydrogen as a medium and exporting it to the industrial countries could become a win-win solution, the "oil business of the 21st century", but...
  - hydrogen transport, storage and usage infrastructure must yet be developed
  - fair green hydrogen partnerships with the Global South must be developed, preventing new postcolonial or neo-liberal exploitation and ensuring "energy justice", and
  - the necessary legal framework must yet be created, both domestically and in intern. law
    - in this process, highly qualified lawyers from the Global South must play an important role...

§ 5 A controversial approach to fight deforestation world-wide: anti-deforestation law

I. The problem of worldwide deforestation and forest degradation despite bold commitments

- forests, esp. rainforests, play a key role in stabilising the global climate by absorbing and storing CO_2; moreover, they produce a significant part of the world's oxygen
- large-scale deforestation or forest degradation, esp. slash-and-burn-practices, can *destabilise* the *climate globally*, with catastrophic effects also in other parts of the world
- therefore, the ongoing large-scale deforestation in some countries despite their governments' bold promises to stop it is conceived a threat - not only to these countries but also to the world, including Europe
- as governments of several countries have shown themselves unwilling or unable to halt deforestation, the EU has opted for the approach to use the coveted access to its internal market as leverage

II. The EU Regulation on Deforestation-free Products (EUDR) of 2023

(Regulation 2023/1115, orignal version/revised version of 19.12.2025)

- an unconventional approach to support forest conservation worldwide
  - European legislation, but aiming for a global impact
  - forest-protecting law, but not in the field of forestry law but environmental and economic law
  - not a "European Deforestation Regulation", but a regulation on deforestation-free products
- an EU regulation (directly binding EU law!) with the the purpose to *ensure that products in the European market do not contribute to deforestation or forest degradation worldwide*
  - applies to products exported from the EU and imported into the EU (→ e.g. Indonesian palm oil)
  - new rules should originally apply from 30.12.2025 (to large & medium enterprises) and 30.06.2026 (to micro & small enterprises)
- requires *operators and traders* that trade in cattle, cocoa, coffee, oil palm, rubber, soya and wood, as well as products derived from them (e.g. leather, chocolate, tyres or furniture), *to conduct extensive diligence on the value chain* to ensure that their goods do not result from recent (post 2020) deforestation, forest degradation or breaches of local laws (esp. environmental laws, land-use laws, third-party rights)
  - such goods must not be placed or made available on the market, or exported from the EU, unless these conditions are fulfilled and the goods are covered by a ***due diligence statement*** submitted electronically to the *EUDR Information system* (art. 3, 4, 33)
    - the statement includes the declaration that no or only a negligible risk of non-compliance was found (art. 4(1), 5(1))
    - if later information indicates that goods may not comply, the operator or trader must immediately inform the competent authorities in the relevant member states (art. 4(5), 5(1))
  - traders who are only small and medium enterprises (SME) only need to collect certain information and keep it for five years (art. 5(2-4))
- The European Commission has established an official list of countries with a particularly high or low risk of deforestation
  - in Southeast Asia, Myanmar is classified a high-risk country, while the Philippines, Laos, Thailand, Vietnam, Singapore, Brunei Darussalam and Timor-Leste (but not Malaysia and Indonesia) are classified low-risk countries

III. The controversy surrounding the Anti-Deforestation Regulation in the Global South

- the EUDR is politically controversial because it *practically forces European environmental policies on sovereign third countries*
  - it is therefore often criticised by the governments (e.g. in Brazil, Indonesia)
  - but it is often supported or even criticised as too weak by civil society organisations in these countries (e.g. in Indonesia)
- the EUDR is also politically controversial because it imposes an *immense bureaucratic burden* on companies
  - see for illustration the *45 pages original Guidance Document* of 2024 and now the *33 pages updated Guidance Document* of 2026 published by the European Commission
  - however, not everyone sees this as a problem: see the translation of the original Guidance Document into Bahasa Indonesia, provided by an Indonesian civil society organisation, so that Indonesian businesses can comply with it (→ enjoy the bureaucracy!)
- the direction of the discussion in Indonesia may shift in the future, after it turned out that the devastating effect of the Sumatra floods in November 2025, which killed more than 1.000 people, is largely due to the massive regional deforestation
  - see explanations by UGM Professor Agus Maryono and article by Agetha Lestari

IV. The softening of the Anti-Deforestation Regulation in December 2025

- after intensive lobbying, also by the Indonesian Government, the EUDR was softened by an amendment of 19.12.2025 (Regulation 2025/2650):
- application of new rules postponed for one year (to 30.12.2026 resp. 30.06.2027)
- some types of products (e.g. print products) exempt
- no relativisation of the substantial obligation to ensure a deforestation-free supply chain
- *simplified declaration* instead of due diligence statement *for micro and small downstream operators and traders*
  - one-time submission with simplified data (postal address instead of precise geolocation)
  - only primary operators (who first place a product on the European market) must submit due diligence statement
  - lighter obligations if later information indicates that product may not comply with EUDR
- in May 2026, the European Commission has published a "simplification review" and set further measures to limit the bureaucratic burden caused by the EUDR

V. Discussion: How to protect the rainforest effectively without patronising the Global South and placing the burden lopsidedly on it?

- Is the approach of the EUDR appropriate?

  YOUR OPINION: _____ .

  _____ .

  YOUR ARGUMENTS: _____ .

  _____ .

  _____ .

  _____ .

  _____ .

- Are there better alternative ways?

  YOUR OPINION: _____ .

  _____ .

YOUR EXPLANATIONS: .

. .

. .

. .

- Should natural areas of outstanding global ecologic importance (rainforests, seas, glaciers, geo-regional water reservoirs etc.) be considered a common natural heritage of mankind? If they should, what should be the legal consequences (under future global international law)?

YOUR OPINION: .

. .

YOUR ARGUMENTS: .

. .

. .

. .

§ 6 Multi-level and cross-sectoral: marine conservation law

I. Backgrounds

1) The need for marine conservation law

- the seas perform vital ecological functions, especially
  - as a habitat for numerous species, many of which serve as a food source, in various kinds of ecosystems
  - to regulate the climate (CO_2 absorption, heat reservoir)
  - to produce a significant share of Earth's oxygen
- but they are threatened in many ways by human activities
  - depletion of marine resources
  - pollution by land-based sources, vessels, waste dumping
  - underwater mining
  - noise pollution
  - global warming
  - microplastic pollution (→ an urgent issue in Indonesia)
- countering these threats requires a dedicated, specialised body of law that
  - introduces the appropriate principles
  - sets out the necessary regulations
  - provides the necessary instruments

2) The need for a combination of global, geo-regional and national marine conservation law

- under the law of the sea the regulatory power of the individual state by virtue of its sovereignty only extends to its 12-mile territorial sea and to a limited extent to its 200-mile exclusive economic zone but not to the use of the high seas
  - cf. art. 86 et seq. UN Convention on the Law of the Sea [UNCLOS]
- consequently, marine conservation can only succeed through international cooperation
  - therefore, its law largely consists of international regulation
- international regluation is primarily necessary at the global level (→ global international treaties) but also at the geo-regional level (geo-regional treaties, European Union law), since the problems and problem-solving capabilities can vary accross different seas or parts of seas

3) The cross-sectoral character of marine conservation law

- marine conservation law addresses a range of threats and affects a wide range of human activities and therefore encompasses regulation in a range of fields of law
  - environmental law, climate protection law, waste law, mining law, fisheries law, land law, planning law etc.
- it is not regulated in a few comprehensive treaties and laws but rather a multitude of specific legal instruments

II. International law on marine conservation

1) United Nations Convention on the Law of the Seas (UNCLOS) of 1982

a) Art. 192 et seq. UNCLOS

- sovereign right of states to exploit their natural resources (art. 193) but general obligation to protect & preserve the marine environment (art. 192)
- obligation to take measures to prevent, reduce and control marine pollution (art. 194)
- obligation of global and regional cooperation and to provide technical assistance for the protection of the marine environment (art. 197 et seq., 202 et seq.)
- states shall establish international rules and national legislation to prevent, reduce and control marine pollution (art. 207 et seq.)

b) Art. 116 et seq. UNCOLS

- right to fish but obligation of states to adapt measures for the conservation and management of the living resources of the high seas

2) Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement) of 2023

(in force since January 2026)

- a comprehensive treaty on the protection of the marine environment at the high seas
- rules on activities with respect to *marine genetic resources* (Part II, art. 9 et seq.)
  - including rules for the fair and equitable sharing of benefits (art. 14)
  - including the obligation to *ensure that traditional knowledge of indigenous peoples* and local communities *is only accessed with* their free, prior and informed *consent* or approval and involvement (art. 13)
- envisages the establishment of area-based management tools (Part III, art. 22 et seq.)
  - including rules on *marine protected areas*
- obligation to conduct *environmental impact assessments* of activities under the states' jurisdiction or control (e.g. by its national companies or vessels) (Part IV, art. 27 et seq.)
- rules on capacity-building and the transfer of marine technology (Part V, art. 40 et seq.)
  - will support particularly the Global South
- institutional arrangements (Part VI, art. 47 et seq.)
  - Conference of the Parties (Cop), Scientific and Technical Body, Secretariat, Clearing-House Mechanism (primarily an open-access platform)
- funding mechanism (Part VII, art. 52)

3) Other global international treaties

a) Convention on Biological Diversity (Biodiversity Convention) of 1992

- protects ecosystems and habitats in the states' 12-mile territorial seas and 200-mile exclusive economic zones
- obliges to cooperate also on high seas

b) Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) of 1972 with London Protocol of 1996

- since the London Protocol almost total ban of dumping waste into the sea
  - except only for possibly acceptable wastes on a so-called "reverse list"

c) International Convention for the Prevention of Pollution from Ships (MARPOL) of 1973

- with Protocols of 1978 and 1997

4) Geo-regional international treaties

- on marine conservation in individual oceans or seas, or parts thereof

III. European Union law on marine conservation

1) The European Union's Marine Strategy Framework Directive (MSFD) of 2008 (Directive 2008/56)

- an attempt to achieve a "good environmental status" of all European marine waters by 2020 and to sustainably protect the resource base for marine-related activities
- a contribution to the ambition of the European Green Deal (→ § 2 I.4)
- categorises the marine waters around Europe into marine regions
  - which the member states can divide into subdivisions

- obliges member states to develop coordinated *national marine strategies* to achieve and maintain the "good environmental status" (art. 5, 8 et seq.), which
  - set objectives and targets
  - include *regular marine environment assessments*
  - establish *monitoring programs*
  - include programs of measures, including the creation of *marine protected areas*
- the ***"good environmental status"*** is defined as "the environmental status of marine waters where these provide an ecologically diverse and dynamic ocean and seas that are clean, healthy and productive" (art. 3 no. 5); this is outlined by *11 descriptors* (in Annex I):
  - 1. biodiversity is maintained
  - 2. non-indigenous species do not adversely alter ecosystems
  - 3. commercial fish and shellfish populations are healthy
  - 4. food webs ensure long-term abundance and reproduction of species
  - 5. reduced eutrophication
  - 6. sea floor integrity
  - 7. no detrimental permanent alteration of hydrographical conditions
  - 8. no pollution caused by concentrations of contaminants
  - 9. safe levels of contaminants in seafood
  - 10. no harm caused by marine litter
  - 11. no harm of the ecosystem by underwater noise or other introduced energy
- the Directive brought some progress but failed to achieve the "good environmental status" in many European marine regions
  - because of sluggish implementation in the member states and a lack of measurable, legally binding commitments and clear rules
  - presently, the Directive is under review

2) Other European legislation

- the Marine Strategy Framework Directive is supported by other EU legislation, which, however, is not formally linked to it:
- the Water Framework Directive (WFD) of 2000 (Directive 2000/60) and other EU legislation on water resources law
- the Maritime Spatial Planning Directive of 2014 (Directive 2014/89)
- the Directive on Safety of Offshore Oil and Gas Operations (Directive 2013/30)
- see also for the *preservation of fish populations* the European legislation on fisheries law and the European Common Fisheries Policy (CFP)

IV. German law on marine conservation

- mainly federal legislation implementing the international treaties (also geo-regional treaties covering the North Atlantik, North Sea or Baltic Sea) or European Unnion law
- see in particular the Law on the Prohibition of the Dumping of Waste and Other Substances and Objects into the High Seas (High Seas Dumping Act) [Gesetz über das Verbot der Einbringung von Abfällen und anderen Stoffen und Gegenständen in die Hohe See (Hohe-See-Einbringungsgesetz)]
- see also the Ordinance on Environmentally Sound Conduct in Maritime Shipping (Maritime Environmental Conduct Ordinance) [Verordnung über das umweltgerechte Verhalten in der Seeschifffahrt (See-Umweltverhaltensverordnung)]
- the Federal Nature Conservation Act [Bundenaturschutzgesetz] also regulates marine nature conservation in the coastal waters and the exclusive economic zone (sect. 56 et seq.)
- see also special legislation on spatial planning (also on the sea), offshore installations and offshore wind farms