

Key points for a reform of national soil protection law

- Perspectives and needs for change -¹

At the national level, soil protection law has hitherto been strongly oriented towards remediation and hazard prevention, and is proving increasingly unsuitable as a means of providing appropriate and comprehensive protection for soil in the face of new challenges and diverse utilisation claims. Simultaneously, natural soil functions are steadily gaining importance in light of the growing need for adaptation to climate change and precautionary measures against its impacts.

The conservation of soil biodiversity has a particularly important role to play in this context. Among other things, soil biota perform key functions in water regulation and the nutrient supply and in maintaining generally favourable soil properties. The formation of soils and the substance conversion processes occurring within them are directly dependent on complex interactions between a great diversity of soil organisms. Good soil condition can therefore be achieved only if soil biodiversity is in a healthy state. Due to the close relationship between biota above and below ground, protecting soil biodiversity is of key importance for the conservation of biological diversity as a whole. Mindful of the responsibility towards future generations, Article 20a of Germany's constitution, the Basic Law, obliges the legislator to protect the natural foundations of life and animals within the framework of the constitutional order. The precautionary principle is a key element of this obligation.

Soil protection law must therefore address the current challenges posed by climate change, progressive loss of biodiversity, and the need to safeguard natural resources for the future. Obstacles to its implementation must be removed. The guiding vision should be aligned more strongly than before with the precautionary principle, as soil degradation – unlike air and water pollution – is difficult and often impossible to reverse. This is also a clear priority for the Conference of Environment Ministers.

This issue is addressed in the new Federal Government's coalition agreement, entitled *Daring More Progress*, which states: *We will evaluate federal soil protection law and adapt it to the*

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challenges of climate change mitigation, climate adaptation and the preservation of biodiversity, taking into account the different uses.

The adaptation of Germany's regulatory regime is accompanied by various European initiatives, particularly the new EU Soil Strategy for 2030 and its announcement that a proposal for an EU Soil Health Law will be put forward by 2023. As stated in the coalition agreement, the Federal Government will support this process at the EU level. This has the potential to generate fresh initiatives at the national level as well.

In the implementation of the soil protection gap analysis announced in the Federal Government's Fifth Soil Protection Report, a Federal/*Länder* Working Group was set up in 2021. During the evaluation process initiated with LABO's *Land* (state) representatives and representatives of the BMUV and UBA, possible approaches were developed to strengthen soil protection by legal means. Accordingly, legal amendments should, in particular:

- Duly consider the contribution made by soil to climate change mitigation and adaptation,
- Strengthen the protection of soil biodiversity,
- Expand and more clearly define the scope of application of the Federal Soil Protection Act (*Bundesbodenschutzgesetz – BBodSchG*),
- Introduce authorisation procedures under soil protection law, and
- Formulate the precautionary obligation applicable in agriculture and forestry in an appropriate and enforceable manner in soil protection law.

European initiatives

An analysis of perspectives and needs for changes to soil protection legislation must consider current developments at international and especially European level in this area of law, particularly given that legally binding regulations on soil protection are to be drafted by 2023, as announced in the new EU Soil Strategy for 2030.

Streamlining procedures

National political efforts, such as those aimed at streamlining planning and approval procedures, must also be considered. Clear technical specifications for precautionary soil protection and its harmonisation with other sectoral regulations, unambiguous procedural rules and an improved data pool can remove existing obstacles to implementation. In this way, more efficient and, above all, timely implementation can be achieved.

With the rapid expansion of renewable energies envisaged with a view to mitigating climate change, and the streamlining of procedures aimed for in this context, it is important to bear in mind that soils can also play an important role in the climate system. This applies particularly to drained bog soils. The constitutional objective set forth in Article 20a of the Basic Law obliges the state not only to mitigate climate change but also, in particular, to protect the natural foundations of life (i.e. especially soil).

These approaches must now be taken forward. The key points – separated into “Challenges” and “Pathways towards solutions” – are described in the following sections.

Challenges

- The definition of **natural soil functions** in the Federal Soil Protection Act (BBodSchG) does not take into account the key role played by soil in the **climate system** and does not consider the contribution made by soil to climate change mitigation. The specific requirements for adaptation to climate change and the conservation of **biodiversity** are also not reflected in the Act, which is now more than 20 years old. Furthermore, the “location” function appears to “override” the other functions, particularly the natural functions of soil.
- The **subsidiarity and systematics of soil protection law** lead to considerable complexity in the legal situation, which, in some cases, is difficult to navigate. The scope to adopt regulations under other specialist areas of law is not utilised because the specialised authorities are preoccupied with their own core functions. The concept embedded in soil conservation law, namely that it has no authorisation procedures of its own at its disposal but relies on other specialised legislation, is overlooked, with the result that aspects of precautionary soil protection are disregarded when they intersect with other areas of law. In parallel, there is no opportunity to obtain information about interventions in soil for which authorisation is not required. In such cases, there is a risk that the interests of precautionary soil protection will be ignored.
- Soil protection is a cross-cutting task which touches on various areas of the law; however, these areas are, for the most part, not harmonised with soil protection requirements.

- Simultaneously, there are areas for which the Federal Soil Protection Act (BBodSchG) and the Federal Soil Protection and Contaminated Sites Ordinance (BBodSchV) do not include evaluation criteria or requirements (e.g. landslips); however, the Federal Soil Protection Act does not exclude this area from its scope of application, resulting in a lack of clarity.
- The key **concept of harmful soil change** relates solely to material inputs; the **non-material component is absent**.
- **Legally binding provisions on non-material soil protection** are largely lacking. Existing regulations, such as the **provisions on unsealing of sealed ground** (Article 5 BBodSchG and Sections 179 ff. of the Federal Building Code (*Baugesetzbuch* – BauGB)), have **no relevance** in practice. Specifically, soil protection law affords (particularly valuable soils) no protection from development and does not require special consideration to be given to natural soil functions in the balancing of interests. Overall, when it comes to the non-material aspect of soil protection, this gives rise to considerable legal uncertainty and consequently involves substantial effort in implementing and enforcing precautionary requirements. Due to the lack of binding legal force, the technical requirements of soil protection are “outweighed” in assessment-based and discretionary decision-making during the enforcement of regulations in other areas of law.
- This lack of rules is also reflected in the provisions of the Federal Soil Protection Act (BBodSchG) relating to **good agricultural practice**, the monitoring of which is impossible **due to a lack of sufficiently detailed rules**. As a result, not enough consideration is given to aspects of soil protection nationwide (in Germany, agricultural land covers approximately 50% of the land area). Moreover, the soil protection authorities lack **powers of their own** to enforce good practice in agriculture and often have no information about the agricultural advice provided following harmful soil changes, as this is a matter for the competent agricultural authorities.

- Furthermore, the **soil protection authorities are generally unaware of situations in which there is a risk of harmful soil changes occurring**. They are informed only when the harmful soil change has already happened. Precautionary soil protection is thus subordinated to efforts to deal with old and new contamination, with material soil protection often taking priority due to the “clearly” hazardous situation.
- In the area of material soil protection, developing provisions **to include new pollutants** (e.g. PFAS) in the Federal Soil Protection and Contaminated Sites Ordinance (BBodSchV) is difficult due to the lengthy process involved.
- Legal uncertainties also exist in relation to **diffuse substance inputs and plastics in soils**. It is essential to ensure that soil protection is enforceable, particularly as regards new groups of pollutants for which no precautionary values currently exist.
- Soil conservation areas (***Bodenschutzgebiete***) may be established under *Land* (state) law. However, differing objectives are pursued in this context, depending on the *Land* law in question, in that these areas are defined either as particularly meriting protection or as particularly contaminated. Irrespective of this, however, the former have no protection against changes, unlike other areas of law such as water or nature conservation legislation.
- As the law stands, **data availability** – which is necessary in light of the new challenges – and the opportunities for **data transfer** (both between the *Land* (state) and the federal level, and data exchange between various authorities at *Land* level) are not covered or facilitated to an adequate extent. Information about soil degradation is often of great importance to the public (particularly local residents). The publication of such information enhances soil awareness. However, due to the current legal situation, publication is often impossible or requires a disproportionate amount of effort. Furthermore, property developers and potential land purchasers require information about individual plots of land, and again, this involves substantial administrative effort.

Pathways towards solutions

The following amendments to soil protection law should be undertaken:

- The contribution made by soil to **climate change mitigation and adaptation** (particularly its carbon storage and cooling functions) **should be duly considered in law**.
- The protection of soil biodiversity should be enshrined in law due to its significance for the soil ecosystem beyond its pure habitat function.
- The particular significance of **natural soil functions/ecosystem services** must be embedded more firmly in law.
- It is necessary to examine to what extent **soil as a medium** can be protected for its own sake.
- Good soil condition should be defined and its attainment should be established as an viable and enforceable objective.
- New regulations must be adopted on the **scope of application and “scope of non-application”** (e.g. for **disused** underground **mines** and geo-hazards such as landslips and rockfalls). For areas where soil protection is not currently regulated in a sufficiently enforceable manner, particularly due to subsidiarity, we wish to establish separate regulations via the Federal Soil Protection Act (BBodSchG). The interfaces between the various areas of law should be formulated with greater clarity.
- In relation to scenarios that have substantial impacts on soil function, **authorisation procedures** should be defined in the Federal Soil Protection Act (primary jurisdiction lies with the soil protection authorities). Furthermore, a consensus rule in favour of the soil protection authorities should be incorporated into planning and approval procedures.

In this context, it is necessary to ascertain to what extent **precautionary measures** are to be differentiated from **hazard prevention** and whether the latter can also be strengthened in law through clarifications in the Federal Soil Protection Act (BBodSchG).

- Harmonisation with other areas of the law is desired. Here, it should be determined how more consideration can be given to soil-relevant parameters in the approval and evaluation procedures under other specialised legislation (e.g. REACH).

In any harmonisation of soil legislation and waste management law, safe and sustainable utilisation of soil material and dredged material should continue to be guaranteed in the interests of a closed-loop economy.

- The **precautionary principle** must be strengthened in the **non-material sector**
 - through **technical standards**,
 - the development of **standards for sustainable management** and
 - consideration of cumulative effects within the precautionary framework, with due regard for materiality thresholds.
 - To minimise **the sealing of soils** and to strengthen the legal bases for **unsealing**, the provisions of planning and soil protection law should be reviewed and consideration given to the option of granting the soil protection authorities their own decision-making power in relation to the economical use of soil and action against the ongoing sealing of soil. Soil degradation, particularly sealing, should be avoided/reduced by means of minimisation obligations and intervention/compensation rules.

- The precautionary obligation **in agriculture and forestry** should be regulated on a more binding basis and thus make a substantial contribution to achieving sustainability goals. In addition to adjustment and clarification, an independent power to issue instructions and the option to impose penalties in the form of fines should be instituted to facilitate enforcement by the soil protection authorities.

- The protection of soil from **material inputs** must be strengthened.
 - In this context, it is necessary to ascertain how **minimisation of diffuse inputs** can be achieved through legal provisions and to what extent the **powers granted under soil protection law** can be implemented when there is a **lack of quantification**.
 - The soil/soil organism pathway should be utilised to derive values.

- **Soil conservation areas** should be identified for certain soils. By designating areas where soils merit special protection, their particular significance is recognised and they can be protected from change. Areas with particular polluting potential are then differentiated more clearly.

- For improved **soil monitoring**, a better information flow is required, along with greater transparency and networking of available data.
 - An improvement in the **soil information system** should therefore be achieved.
 - In addition, the **legal basis for the collection of soil data** and for **data harmonisation** must be updated.
 - It must be possible, as a matter of principle, to publish data relating particularly to contaminated sites, potentially contaminated sites, harmful soil changes and suspect sites. It is necessary to ascertain how this can be implemented legally.

- When enhancing the soil protection regime, the **conservation of soils in forests** and the **handling of products with potentially harmful impacts on soil** should also be considered.

- **When developing pathways towards solutions, the goal of land degradation neutrality (LDN – SDG 15)** must be considered and, if appropriate, enshrined as an objective in law.