- The German version is authoritative -

Expert Opinion on the Assessment of Administrative Burdens

Arising in connection with the Proposal of the European Commission for a Directive of the European Parliament and of the Council establishing a framework for the protection of soil (COM(2006)232 final) from 22 September 2006 (draft Soil Protection Directive), and taking account of the proposed compromise of the Czech Presidency submitted on 5 June 2009

Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz

Submitted to the
Federal Ministry of Food, Agriculture and Consumer Protection

by the
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Contents

I. Task

The Federal Ministry of Food, Agriculture and Consumer Protection commissioned the Fachhochschule des Mittelstands (FHM) university of applied sciences to assess the additional costs that would accrue to Germany's public authorities following the entry into force of the Soil Protection Directive. The precise subject of the following expert opinion is the Proposal of the European Commission for a Directive of the European Parliament and of the Council establishing a framework for the protection of soil (COM(2006) 232 final) from 22 September 2006. This opinion takes into account the proposed compromise submitted by the Czech Republic during its Presidency of the Council of Ministers.

Accordingly, the task was to estimate the additional costs that would accrue to Germany's public authorities particularly in connection with the following requirements set forth in the draft directive:

- The identification and designation of areas at risk of erosion, organic matter decline, compaction, salinisation, acidification, landslides and other risks as applicable
- The establishment of targets and programmes and the adoption of measures to achieve the targets for these areas, each with public participation in accordance with the rules for the Strategic Environmental Assessment (SEA), and the monitoring of the implementation of the programmes and measures
- The review of the programmes of measures
- The identification of the sites of all industrial installations which have the potential to degrade the soil, and drafting of a remediation regime
- The preparation of soil status reports in connection with real estate transactions
- Reporting obligations vis-à-vis the European Commission

According to the parameters set forth in the description of the task, only those costs were to be assessed that would accrue **in addition** to those costs which are currently already being incurred for the implementation of national soil protection regulations.

II. Summary of key findings

1. General information regarding the national cost impact assessment of EU directives

This study showed that the costs which draft EU directives are to be expected to entail once they enter into force can also be assessed at national level.

Also, such assessments are therefore not only possible, they should be conducted on a regular basis in future because at least some of these costs are likely to be substantial. For this reason, cost assessments of this kind should be included in the political decision-making process in Germany in connection with decisions on the approval of draft directives.

To date, national cost estimates — in those few cases where they existed at all in individual ministries — have not been conducted using one single method. Drawing on the method used in connection with the Standard Cost Model (SCM), the following study therefore projected how large the total financial burden for Germany's public authorities would probably be on the basis of a representative survey of public authorities which will be affected by the implementation of the draft Soil Framework Directive. It must be noted here that — as is the case with SCM — this assessment does not constitute a concrete portrayal of the actual costs that will arise in the future (which will also be necessary). Rather, it is an estimate of these costs, presented in a standardised form. It may be readily assumed that the employees of public authorities have the qualifications necessary to ensure the quality of this type of survey. This was confirmed in the course of the study. As a result, it was not necessary to call in experts as is usually done as a safeguard when employees of a business enterprise are surveyed. The employees who took part in the survey are themselves experts.

The fact that it is not possible to predict with certainty how an EU directive will be transposed at national level poses a particular challenge when estimating consequential costs:

On the one hand, the wording used in EU directives is often left so open that several different interpretations are possible.
On the other hand, it is in the nature of EU directives that they allow national legislators latitude in broad areas for their transposition of the respective directive.

Due to this situation, in order to estimate the costs that implementing an EU directive will entail, it is also necessary to examine and predict what the transposition of the particular directive into national law in Germany will probably look like. The example of the draft Soil Framework Directive has shown that additional difficulties can arise in connection with this. For example, in Germany it is possible that a directive must be transposed into law not only by the federal legislature but also by the country's state legislatures.

Another possible difficulty in this connection — and which also turned out to be the case with soil protection — is that transposing a directive into law can involve several specialist statutes. In Germany, soil protection regulations are contained not only in federal and state soil protection laws but also in, for example, the Federal Immission Control Act, the Federal Building Code and in federal and state regional planning laws. A cost estimate therefore also requires a detailed analysis of existing legislation before the directive goes into effect so that it is possible to foresee which laws will be affected by its implementation.

A fundamental — generic — finding from this study is that the existence of regulations in the areas in which a draft directive also provides for regulations by no means eliminates the need to transpose the draft directive into national law. This is because the national implementation of an EU directive must always be documented outwardly via new statutory regulations. The fact that this is often misunderstood can be seen in actual practice as well. For example, this study showed that public administrators often saw no need for any implementation of the draft Soil Protection Directive and did not anticipate any financial repercussions — even in those cases where the EU bodies issuing the directive provide for "mandatory provisions" at national level while only discretionary provisions concerning the area to be regulated have been in place in Germany to date. In such cases, it is necessary to clarify as part of the cost assessment whether the requisite conversion of a national rule from a discretionary regulation into a mandatory regulation would have financial consequences. This point must be clarified any time the creation of a mandatory regulation by virtue of Community law would lead to a situation in which the final state targeted by the EU rule and national rule must be achieved substantially faster from that point on than previously provided for by the national legislature. When the targeted objective must be achieved at a faster pace than originally planned due to a directive going into force, government funds have to be spent sooner than originally planned. This difference in the time taken to achieve the targeted

final state can be determined using the so-called "present value calculation". The shortening of the time frame can lead to significant additional financial burdens for public authorities as could be demonstrated in the case of soil protection law using the example of contaminated site remediation. It appears that this fact has scarcely played a role to date in the deliberations undertaken during the preparation process that precedes EU directives.

2. The draft Soil Framework Directive

The draft Soil Framework Directive is particularly controversial in Germany. It is a matter of dispute not only in the political sector but also in the science community and among various interest groups. This explains the considerable variance in the estimates (which are often guided by specific interests) of the burdens that will be placed on Germany's federal and state lawmakers in connection with the transposition of the directive and what the attendant costs might be. Some relevant authorities even continue to hold the view that, at least in Germany, the implementation of the Soil Framework Directive will not trigger any significant additional costs.

This study intentionally did not include the very large segment of government-owned land — and federally-owned land in particular — where the government will be facing enormous financial obligations arising in connection with the remediation of contaminated sites (such as the large category comprising contaminated military sites). Including this area would have entailed much more survey work than this study would have been able to conduct. Thus, the enormous costs which will arise for Germany's public authorities in connection with these properties when the Soil Framework Directive enters into force were not covered by this study.

It is estimated that a total of € 317,227,000 will arise in **annual** costs for all levels of government. The local level would be responsible for most of these costs, some € 273,000,000.

Local governments do not have a constitutional claim or even a claim under ordinary law to having these costs reimbursed by the Federal Government. A claim vis-à-vis the respective federal state is possible only when the principle of concomitant financing laid down in the respective state constitution applies. (Under the principle of concomitant financing, a state government may assign tasks to local governments only when it also

assumes responsibility for the funding that is needed for discharging these tasks.) Based on this however, the respective state legislature would have to expressly hand over to the local governments — through a separate law — its responsibility for the new soil protection tasks arising from the Soil Framework Directive. This is not however to be expected. Consequently, local soil protection authorities will have to apply the new **federal** provisions but will not receive any compensation for the additional costs that this will incur. They will have to rely on the states allocating them corresponding funds on a voluntary basis. It is not to be expected that such allocations could cover the costs that Germany's local governments will incur in this connection.

Based on the estimates conducted as part of this study, the **one-off** costs at all levels of government will total between € 2.6 billion and € 31 billion. The considerable difference in these two figures is due to the fact that it was necessary to take different possible scenarios into account. The primary reason for the sizable cost estimate is the fact that the obligation to remediate contaminated sites set forth in Article 13 of the draft Soil Framework Directive also exists in principle in the Federal Soil Protection Act. However, under the Federal Soil Protection Act this obligation is decided at the respective authority's discretion. Pursuant to Article 14 of the draft Soil Framework Directive however a timetable for implementation is to be drawn up. As a result, this obligation will no longer be an "open-ended" but rather a limited obligation. This circumstance can and must be portrayed in financial terms to ensure an adequate analysis of the costs. These financial effects were calculated by figuring the present value discount which is based on various assumptions that cannot however be verified at the present time because they apply to the future.

When the present value discount is disregarded, the estimated **one-off** costs total € 288,690,000, with the largest share by far (€ 222,400,000) being attributed to the local governments.

Shown in table form, the additional costs for Germany's public authorities break down as follows:

Annual costs:

Federal *	State	Local	Agricultural agencies	Total
€ 918,000	€ 32,509,000	€ 273,000,000	€ 10,800,000	**€ 317,227,000**

One-off costs:

Federal*	State	Local	Total	Present value discount
€ 2,272,000	€ 64,018,000	€ 222,400,000	**€ 288,690,000**	**between € 2.6 billion and € 31 billion**

* This figure does not include the costs for the remediation of federally-owned land, in particular the costs for the remediation of federally-owned land which was previously used for military purposes.

III. Introduction

1. Remarks regarding the draft directive which provided the basis for this expert opinion and regarding the execution of the assigned task

In accordance with the task outlined in Section I which the Federal Ministry of Food, Agriculture and Consumer Protection assigned the Fachhochschule des Mittelstands university of applied sciences, this expert opinion examines the additional costs which will arise for public authorities in the Federal Republic of Germany in the event that the draft Directive of the European Parliament and of the Council establishing a framework for the protection of soil (draft Soil Framework Directive or draft SFD) which European Commission submitted on 25 September 2006 becomes reality. The proposed compromise submitted by the then Czech Presidency on 5 June 2009 was selected as the actual basis for drafting this expert opinion.

The participating experts from the Fachhochschule des Mittelstands (FHM) conducted preliminary talks twice at the Federal Ministry of Food, Agriculture and Consumer Protection in Bonn. The FHM's experts held a number of additional meetings on location, in particular with representatives of three federal states, several local governments, the Regional Finance Office of Lower Saxony in its capacity as the lead agency of the Bund für Boden- und Grundwasserschutz (Association for Soil and

Ground Water Protection) and a senior expert from Austria (head of the Institute for Soil Health and Plant Nutrition at the state-run Austrian Agency for Health and Food Safety). Further, statistics that are available on the internet were used. The numbers that were arrived at in this expert opinion are not to be understood as binding, concrete statements but rather as cost forecasts that are made here in a standardised form that is based on individual elements of the Standard Cost Model (SCM) method which will be outlined below.

2. Special thanks

The authors of this expert opinion would like to thank all interviewees, particularly those from the states of Bavaria, Mecklenburg-Western Pomerania and North Rhine-Westphalia, the City of Bielefeld, Lippe District and other public bodies who agreed to draw up forecasts regarding the costs that would arise in connection with the draft Soil Framework Directive. The authors will not thank the individual participants by name here because several interviewees expressly requested that confidentiality be observed. This request will naturally be complied with.

3. Reservations on the part of the contacted experts

It must be mentioned here that a few soil conservation experts — from the science community as well as government offices — had, in some cases substantial, reservations regarding this study. These reservations were explicitly expressed only in part.

Those reservations which were expressly communicated can be summarised as follows: There is no point in conducting a study that examines only the costs of a future framework directive on soil protection — so the argumentation went — because the benefits, particularly those to society as a whole, would not be taken into consideration as an entry on the "plus" side of the equation. These benefits would be significantly greater than the anticipated costs, it was said. It was further stated that soil protection is a vital subject that concerns the future of the planet and its importance has not been sufficiently acknowledged in all EU Member States to date. As a result, it was said, a binding legal framework is needed in order to advance this subject in those Member States as well which have not conducted enough soil protection and conservation to date. This particularly applies to countries, it was noted, which do not yet even have their

own soil protection legislation. Further, analysing the costs on an isolated basis holds the risk of pushing these fundamental, existential aspects "into the background".

In this connection, it must first be said that all of the parties involved in drafting this expert opinion take these views very seriously. They also understand the scepticism expressed by the aforementioned soil protection experts that, out of all EU directives, a national assessment of the costs of an EU directive was to be conducted on the basis of "their" soil protection directive. On the other hand, it should not be forgotten that assessing the costs of future legal acts also concerns an important issue: namely, the issue of ensuring the government's financial fitness in coming years. As irresponsible as it would be to neglect soil protection as a political issue, it would be equally irresponsible — particularly with an eye to the future of coming generations — not to examine and assess very thoroughly as part of the law-making process the cost of government measures for all parties affected by the law. Unfortunately, the shortcomings of inadequate cost estimates particularly involve the expenses that will arise in the Member States in the wake of EU legal acts. One example that can be cited in this connection is the Directive 92/43/EEC (Habitats Directive) which the then Member States adopted at the recommendation of the European Commission. This directive also concerns a very important environmental subject, namely, the conservation of natural habitats and of wildlife and plants. A realistic estimate of the costs that the bodies involved would be facing should have been an obvious and indispensable part of the information provided all political decision-makers and parties concerned during the preparation process, even back then. However no such estimate was conducted. It is still agreed today — as in the past — that these costs will be enormous. However the question of how high these costs will ultimately be, particularly for public authorities, continues to be the focus of many inquiries and requests for information, particularly at the state and local implementation level.[1]

In light of the experience gained with earlier EU environmental directives, it would be wise to conduct a national assessment for Germany in connection with the Soil Protection Directive, additionally to the Commission's impact assessment which assumes that the remediation of contaminated soil in the EU-25 would cost a total of € 119 billion.[2]

[1] Landtagsdrucksache Baden-Württemberg (printed document of the Baden-Württemberg State Legislature) 14/1043, motion dated 14 March 2007

[2] COM Impact Assessment, full version, page 107, Table 24 = Commission Staff Working Document, Document accompanying the Communication from the Commission to the Council, the European

IV. The effect of directives in Germany

1. Estimates of the costs resulting from other EU directives

Estimating the national costs arising in connection with future EU directives requires a clear picture of the effect that a directive will have in connection with national law. Studies conducted to date have focused primarily on the already existing "effects" of EU directives — in other words on the legislation that has already been passed on the basis of the respective directive. The General Equal Treatment Act which is considered to have particular potential for creating bureaucracy can be cited as an example here. A study conducted to examine the costs arising as a result of this law[3] estimated the costs to business at € 1.73 billion. This triggered an immediate reaction on the part of the Federal Anti-Discrimination Agency (ADS) which commissioned a study of its own. This study concluded that the annual costs to German companies would total only € 26 million.[4] These findings prove that — with the exception of the methodology used in connection with the Standard Cost Model when quantifying the costs of information requirements — there is apparently a lack in Germany of a consensually-proven methodology for measuring costs resulting from EU directives.

In contrast to the General Equal Treatment Act which already exists, the authors of this expert opinion additionally had to develop as part of this study a prognosis regarding the way in which the draft directive would be transposed into German law. In light of the aforementioned situation, they also used the Standard Cost Model (SCM), as will be elaborated below, as a guideline for their work. The SCM was originally developed only for estimating the cost of fulfilling information requirements and lays no claim to generating a precise picture of the actual costs. It claims only that it produces an approximation of reality using interviews of representative individuals concerned. In the course of this study it turned out however that important elements of the Standard Cost Model (including standardised interviews with the parties concerned and the

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Parliament, the European Economic and Social Committee and the Committee of the Regions – Thematic Strategy for Soil Protection – Impact Assessment of the Thematic Strategy on Soil Protection {COM(2006)231 final} {SEC(2006)1165}

[3] Hoffjan, Bramann, Kentrup, Folgekosten von Gesetzen, Frankfurt 2008

[4] Antidiskriminierungsstelle des Bundes (ADS – Federal Anti-Discrimination Agency) press release from 14 August 2008

extrapolation to all parties concerned within the territory of the Federal Republic of Germany) could also be applied when quantifying other costs.

2. Concrete effect of EU directives on German legislation

The authors drew on the relevant "Recommendations of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety for Instructions for the States' Direct Application of Provisions of Directive 2003/35/EC on Public Participation (Annex 3)" for substantial parts of the following account of the impact that EU directives have in Germany. This document states:

> ”In contrast to Community regulations which are binding in their entirety and directly applicable in all the Member States, directives are binding, as to the result to be achieved, upon the Member States pursuant to Article 249, paragraph 3 of the EC Treaty. Directives must therefore be transposed into national law as a rule. Notwithstanding the text of Article 249, paragraph 3 of the EC Treaty, the European Court of Justice ruled back in the early 1970s that under certain conditions individual provisions of directives can have a direct effect in Member States even without having been transposed into national law. A considerable amount of case law on this point has developed in the years since then. Jurisprudence also recognises the direct effect of provisions of a directive in principle. The details in this connection are however contentious. Despite recent findings, the question of the direct effect of directives having a third-party or double effect has not yet been fully clarified. According to decisions handed down by the ECJ, individual provisions of a directive can have a direct effect when they
>
> - have not been implemented by the end of the period prescribed or not been implemented properly,
> - are unconditional and
> - are sufficiently precise as far as their subject-matter is concerned.
>
> A provision of a directive is deemed to be unconditional and sufficiently precise even when it expressly grants Member States the right of choice in connection with its elaboration, but at the same time however lays down mandatory minimum standards or limits on Member States' discretion in their exercise of the right of choice.[5]

[5] ECJ from 24 October 1996, Case C-72/95 Kraijeveld, Collection 1996, I-5403

The direct effect of a provision that has not been implemented must be taken into account *ex officio* by the courts and public authorities (keyword: objective effect of directive provisions). This means that the respective body is obligated to apply the provision even when the provision does not create individual rights. This is because the question of whether individuals may invoke the provision of the directive has nothing to do with the obligations arising from the directive.[6] The ECJ dogmatically justifies the recognition / rejection of direct effects of directive provisions in part with the principle of *effet utile* and in part with the prohibition of *venire contra factum proprium*. According to the *effet utile* principle, provisions of Community law are to be ensured the greatest possible effectiveness.

Under the prohibition of *venire contra factum proprium*, a Member State may not invoke — to the detriment of its citizens — its own omissions, in this case, its failure to transpose a directive or a provision of a directive or its incomplete transposition thereof. Based on this, the ECJ has issued nuanced positions on the following classical scenarios:

a. Vertical effect of directive provisions (relations between individuals and the State)

   Directive provisions which constitute public-law rights for private persons apply directly to the favour of the persons concerned. The administrative authorities of the Member States must take into consideration the corresponding rights of the individual on an *ex officio* basis and not just in those cases where the individual invokes those rights. [7]

b. Horizontal effect of directive provisions (relations between individuals)

   A direct effect of directives is excluded in relations between individuals. A directive's civil-law provisions cannot establish obligations for citizens prior to their transposition.[8]

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[6] ECJ decision from 11 August 1995, Case C-431/92, ECJ 95, 2189 = NVwZ 1996, 369ff - "Großkrotzenburg"

[7] E.g. ECJ from 5 April 1979, Case 148/78, Official Collection of ECJ Decisions 79, 1642 - "Ratti"

[8] E.g. ECJ from 14 July 1994, Case C-91/92, Official Collection of ECJ Decisions 94, 3325, 3356 = NJW 1994, 2473 ff. - "Faccini Dori"

c. Reverse vertical effect of directive provisions (relations between the State and individuals)

The State may not directly invoke provisions of directives to the detriment of its citizens, in other words, a direct obligation of individuals arising from a directive is excluded. [9]

d. Objective effect of directive provisions (State as the obligor)

With regard to directive provisions which establish neither public-law rights nor place burdens on individuals, but rather solely standardise obligations for public authorities, government bodies are already obligated to fulfil the obligations set forth in the directive by virtue of the objective effect of the directive's provisions.[10]

e. Third-party or double effect of directive provisions (relations between the State ─ individual ─ individual / State ─ individual)

Public-law provisions with a third-party or double effect comprise, on the one hand, rules which benefit some individuals and, at the same time, burden others (directive provisions which benefit some individuals while placing burdens on third parties and directive provisions which place burdens on some individuals while benefiting third parties). On the other hand, they also comprise other rules which are directed solely at the State but whose enforcement entails burdens for individuals (directive provisions with objective effect and which place burdens on third parties). Regarding this point, some legal literature[11] has for some time now held that in its previously-mentioned Großkrotzenburg ruling the ECJ recognised the direct effect of directive provisions which place burdens on third parties. This is not however explicitly stated in the ruling.[12] It was therefore assumed that the ECJ possibly wanted to decide only the question of the objective effect of provisions of

[9] E.g. ECJ from 8 October 1987, Official Collection of ECJ Decisions. 1987, 3969 – "Kolpinghuis Nijmegen"; ECJ from 3 May 2005, Case C-387/02 – "Berlusconi"
[10] ECJ from 11 August 1995, Case C-431/92 – "Großkrotzenburg"
[11] E.g. Albin, NuR 1997, 29, 32; Epiney, DVBl. 1996, 409, 413
[12] For critical comments: Pechstein, EWS 1996, 261, 264

directives (see above) and, in this connection, considered burdens in the form of obligations to cooperate as being immaterial. A new ruling from the ECJ[13] however makes it clear that in a three-cornered relationship a directive's direct effect is not thwarted by the fact that the direct effect is coupled with a burden for private third parties.[14] The ECJ clearly determined this for the individual's invocation of his rights arising from Article 2 (1) in conjunction with Articles 1(2) and 4(2) of the EIA Directive."

Should, as indicated by the above, the Federal Republic of Germany also be required to effectively transpose EU directives in areas that fall under national discretion,[15] this would bring restrictions for the Soil Framework Directive as well. Article 13 of the draft Soil Framework Directive can be cited as an example in this connection. This article states that Member States must ensure that the contaminated sites that are listed in their inventories of contaminated sites pursuant to Article 10 (4) of the draft Soil Framework Directive are remediated in accordance with Article 10 (2). This national obligation to remediate is a "must". This would be incompatible with existing German provisions — such as Sections 10 and 16 of the Federal Soil Protection Act — which provide that remediation orders may be issued only in conjunction with discretionary provisions to individuals who are subject to the particular law. However, when an EU directive contains a mandatory provision for a certain case, the national legislation implementing the directive must also provide for the mandatory provision.[16] Equally incompatible with this requirement is the fact that the Federal Republic of Germany conducts the remediation measures incumbent upon it based not only on the level of urgency but also on the current budget situation. This is legitimate, provided there is no immediate threat to life or limb. The reason: Government authorities cannot be accused of conduct that is in breach of duty and thus unlawful when it would be unreasonable — also in light of the current budget situation — to expect them to immediately remedy a condition that is basically disapproved.[17]

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[13] Decision from 7 January 2004, Case C-201/02 Wells, particularly headnotes 2 and 3; point 55ff.

[14] Cf. on this: Kerkmann, DVBl. 2004, 1288f.

[15] Cf. Himmelmann, EG-Umweltrecht und nationale Gestaltungsspielräume, Baden-Baden 1997, 134 with numerous supporting documents from rulings of the ECJ

[16] Himmelmann ibid., p. 134 f. with numerous supporting documents from rulings of the ECJ

[17] Cf. Federal Court of Justice =BGHZ 112, 74, 75 f.

V. Need for cost estimates in connection with EU acts

1. First attempt in Germany to develop a cost estimate for a draft EU directive

As far as could be determined, this is the first methodical cost estimate to be undertaken, at least at national level, for a directive that is still in the draft stage. As already mentioned in II.1, the only study known here to have examined in detail and in concrete terms the national costs of an EU directive revolved around an already completed transposition which took the form of the General Equal Treatment Act.[18] In the case of the draft Soil Framework Directive, its transposition has naturally not yet been undertaken, not even, for example, at drafting level.

Apart from that, the only other known example is the preliminary cost estimate issued by the state of Schleswig-Holstein regarding the Water Framework Directive (WFD). In this cost estimate, Schleswig-Holstein predicted that the implementation of the WFD would entail € 688 million in costs to the public coffers in its jurisdiction.[19] The methodological principles used in that estimate are not known to the authors of this opinion.

(a) Cost estimate of the European Commission

The European Commission has submitted an impact assessment regarding the draft Soil Framework Directive.[20] This document does not however undertake a uniform cost estimate. Rather, it assumes that, for example, the costs for the first provisional survey of contaminated sites, which would have to be conducted within five years after the transposition of the Soil Framework Directive and would be the first step in developing a list of contaminated sites, would total an estimated € 51 million per year for the then 25 Member States. According to one scenario used for the calculation, the establishment of a full inventory of contaminated sites would cost up to € 240 million a year during the next 25 years. This estimate was based on just 25 Member States, the number of Member State which comprised the

[18] Hoffjan, Bramann, Kentrup, Folgekosten von Gesetzen, Frankfurt 2008
[19] StGB NRW-Mitteilung 272/2006 from 17 March 2006
[20] Commission Staff Working Document from 22 September 2006 – Document accompanying the Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – Thematic Strategy for Soil Protection – Impact Assessment of the Strategy on Soil Protection

European Union at that time. The same document balances the estimated costs against the anticipated benefits of the measures to be taken. In the Commission's view, the measures would partly benefit the users of the land but would particularly benefit society as a whole.

(b) Cost assessment of the Committee of the Regions (CoR)

In its capacity as the representative of municipal and local interests, the Committee of the Regions (CoR) stated during its hearing on the draft Soil Framework Directive that it was sceptical insofar as it felt that burdens would arise for local authorities particularly in connection with the costs of remediation.[21] For this reason, the CoR expressed the following reservations:

> *"The CoR does not wish to see any direct obligations imposed upon the relevant authorities in respect of the actual cleaning-up and management of contaminated sites (Article 13). The authorities ensure that a clean-up actually takes place. All these matters must be considered in the context of the laws and rules applicable in the Member State concerned and in the context of the specific local soil situation. The authorities in question remain, of course, responsible for ensuring that the issue of contaminated sites is tackled."*

2. The future budget situation in Germany (debt brake)

As with all tasks that have been entrusted to the state, the way the national government deals with soil protection problems, and in this case with the remediation of contaminated sites in particular, also has to be continually viewed in conjunction with the state of public finances.[22]

Were the issue of soil protection to remain solely the responsibility of the respective national government in the coming years, the tasks arising in this connection in Germany would also, like all other tasks, be directly linked with the state of the country's public finances. In such a case, spending measures in the soil protection area would always be

[21] 1.24 of the Opinion of the Regions at its plenary meeting from 13/14 February 2007 DEVE-IV-005
[22] Cf. Sachverständigenrat für Umweltfragen (German Advisory Council on the Environment) - Umweltgutachten (Environmental Report) 2008, p. 289)

dependent on the state of the federal, state and local governments' coffers — as are tasks in the elementary, secondary and tertiary education sector, the health care and social affairs field, in the area of public order and safety and many other fields.

If Community law and the concomitant primacy of its application were not to apply, soil protection would consequently, just like other fundamental government tasks, be governed by the new constitutional rule in Germany which even the German government officially refers to as the "debt brake".[23]

This situation will however affect only those public-sector tasks which do not by virtue of an initial European rule have to be discharged no matter what within a certain timescale which is stipulated by Community law. Insofar as "European tasks" are involved whose discharge is prescribed by, for example, a directive, Community law shall have primacy of application. As soon as a violation of the Treaty has been determined by the European Commission and confirmed by the European Court of Justice (ECJ), the government concerned may no longer invoke any obstacles which stand in the way of putting an end to the violation.[24]

As a consequence, when soil protection measures are required by a European directive in the future, it will no longer be possible to use the "empty public coffers plea" due to the primacy of Community law. Soil protection measures will then have to be carried out on the basis of the overriding Community law insofar as its binding force applies. In this respect, soil protection will enjoy a privileged status compared to areas which do not have the advantage of being attributable to EU law.

As a result, German laws that implement Community law are better protected against the cost arguments of finance ministries and local treasurers than other German laws which do not have the "good fortune" of being based on Community law. Largely national tasks such as ensuring public order and safety (construction of prisons, hiring and remuneration of judges, public prosecutors and policemen), the education system (construction and maintenance of schools and universities, hiring and remuneration of teachers and university lecturers), the area of social benefits including the health care field and many other areas get the "short end of the stick" in this respect. This may well

[23] For more regarding this: http://www.bundesfinanzministerium.de/nn_76712/DE/BMF__Startseite/Aktuelles/Monatsbericht__des__BMF/2009/03/analysen-und-berichte/b01-reform-Verschuldungsregeln/reform-verschuldungsregeln.html

[24] Cf. for example: Berkemann in: Berkemann/Halama; Handbuch zum Recht der Bau- und Umweltrichtlinien der EG, Bonn, 2008, p. 217 with supporting documents from rulings of the ECJ

be necessary and may certainly be decided thus at political level. However, before a new Community law is created, political decision-makers must be put in a position to resolve this conflict on a transparent basis; this basis should also include an at least approximate cost impact assessment.

The "empty public coffers plea" will therefore become a legally sound argument which will lead in many policy fields to mandatory spending cuts — in other words, spending cuts that are prescribed by the German constitution — because any budget that is not in compliance with this requirement is unconstitutional.

The new constitutional situation will necessitate drastic cuts. This is inevitable due to the following:

The general principles underlying the "debt brake" are laid down in Article 109 in conjunction with Article 115 of the Basic Law. These two articles contain basic rules that place limits on net borrowing and apply to both the Federal Government and the country's state governments. These basic rules safeguard the long-term fiscal sustainability of Germany's federal and state governments:

- According to these rules, Germany's Federal Government and state governments must, as a rule, balance their budgets without borrowing. The Federal Government is in compliance with this rule when revenues from credits do not exceed 0.35% of Germany's nominal gross domestic product under normal economic conditions. In the case of state budgets, the constitution does not provide for this type of structural debt margin.
- Germany's Federal Government and state governments may provide for an exemption which would enable additional borrowing only in the case of natural disasters or exceptional emergency situations. Should the exception clause be used, the credits that have been taken out in this connection must be repaid on the basis of a binding repayment schedule.

The "debt brake" was implemented in response to the following, still ongoing, financial situation in the Federal Republic of Germany:[25]

[25] Cf. Federal Ministry of Finance ibid.

Over the last several decades, Germany's national debt has grown to presently more than € 1.5 trillion. As a result, the national debt ratio — in other words, the respective level of indebtedness in relation to gross domestic product — has risen from approximately 20% some years ago to nearly 65.5% in 2008. The former Article 115 of the Basic Law (which, in a similar form, is also an element of many state constitutions) normally allowed net borrowing up to the amount of total expenditure for investment provided for in the budget estimates. Another fundamental weakness in this former rule was the lack of an explicit obligation to use the surpluses generated during "good" times to balance the amounts that were borrowed in times of economic downturn on the basis of the exemption that is allowed in the event of an (imminent) "disturbance of the overall economic equilibrium". Germany's high level of indebtedness manifests itself in long-term constraints on the government's means for taking action, in drops in growth and in the loss of jobs. The stringent quantitative and qualitative parameters set forth in the European Union's Stability and Growth Pact must be complied with. It is therefore mandatory that governments remain capable of action in fiscal terms. Numerous measures have been taken in recent months to bolster the economy. Although these measures have been indispensible, they have also placed substantial structural burdens on government coffers.

VI. Methodology

1. Use of the Standard Cost Model

This study used basic elements of the Standard Cost Model (SCM) — even though the SCM was originally developed in the Netherlands for use in connection with information requirements and this study focuses on more than information requirements. As far as could be determined, the SCM has never been used in this way before. However, as in the case of the conventional Standard Cost Model,[26] the aim of this study was not to cover every conceivable activity but rather to obtain a picture of normally efficient activity patterns. In this context, "normally efficient" means that public authorities indeed strive to follow an "ideal" activity pattern but are unsuccessful in practice.[27] However, out of their endeavours emerge typical activity patterns which are the focus of attention for the purposes of the SCM analysis. Within the framework of the SCM, administrative

[26] Regarding this and the following section: Cf. Federal Government Manual for the Identification and Reduction of Administrative Burdens Created by Federal Information Obligations, Berlin, 2006
[27] Manual ibid p. 16 f.

processes, actions and costs are standardised by assuming "normally efficient" or average activity patterns. Thus the model does not focus on exceptions but instead examines typical activities. This approach is conducive to the greatest possible representativity, which is necessary in order to generate reliable results. This means that legislators anticipate average activity patterns on the part of public authorities in meeting statutory obligations. A fundamental aspect of this study is the fact that only a selected group of parties concerned was surveyed; this is also typical of the Standard Cost Model. Another element from the SCM that was used in this study was that the costs and benefits of the draft Soil Framework Directive were explicitly not balanced against one another because such an approach is a matter for decision-makers in the political sector. This study however deviates from the established Standard Cost Model because it estimates not only information obligations but compliance costs as well.[28]

2. Steps

The following steps were taken:

a. Interpretation of the draft Soil Protection Directive on the basis of recognised criteria, giving particular regard to rulings handed down by the European Court of Justice

b. Comparison and cross-checking of preliminary results from the interpretation with available sources in relevant literature and the internet

c. Formulation of premises

d. Meetings and interviews with affected parties

e. Plausibility check

f. Extrapolation

3. Compliance costs

The assigned task called for an assessment not only of the cost of information requirements but also of the cost of compliance. The compliance costs were ascertained using an "expanded Standard Cost Model" and were thus identified using a method that

[28] More information below at III.3

is fundamentally in conformance with the resolution adopted by the German Bundestag during the last legislative period.[29]

In order to apply the fundamentals of the Standard Cost Model (SCM) to the problem of assessing compliance costs, it was first necessary to define what compliance is and how the costs involved in compliance are to be measured.

Compliance obligations are defined here as those obligations which arise for normal addressees through their compliance with statutory obligations to take action. The costs resulting from the actual compliance are called compliance costs here.

The SCM methodology, which was originally used to measure the costs arising in connection with information obligations, provided the basis for the study's assessment of compliance costs as well. Compliance costs are broken down by resource into labour costs, material costs and financing costs. "Labour costs are calculated by multiplying the amount of time expended by the respective hourly wage. In this connection, special standardised processes for the individual type of obligation to take action are used to ascertain the amounts of time expended. Material costs include the costs of materials, incoming goods, outside services, financing and infrastructure as well as depreciation. Funding costs include taxes and other fiscal charges such as fees."[30] Since this study examines the costs arising for public authorities, this last point is not relevant.

The study was to examine only those additional costs which arise solely in connection with the legal obligations ensuing from the draft directive. So-called "anyway costs" — costs which would be incurred even if the legal obligation did not exist — were subtracted from the ascertained costs.

Based on this, direct compliance costs were calculated as follows:[31]

[29] Cf. resolution from 2 July 2009, Plenarprotokoll 16/230, p. 25799 in conjunction with Bundestagsdrucksache (Bundestag printed paper) 16/13146 on the use of this methodology which has already proven its value, particularly in connection with information costs
[30] Schatz, M., Schiebold, M., Kiefer, S., Riedel, H., p. 7
[31] Schatz, M., Schiebold, M., Kiefer, S., Riedel, H., Handbuch zur Messung von Regulierungskosten, Version 1.0, April 2009

Labour costs
+ Material costs
+ Funding costs
= Subtotal 1
- Anyway costs (costs which would have been incurred anyway)
= Compliance costs

One special aspect of the funding costs (which are counted together with material costs) are those costs arising from the present value discount that results from a shortening of existing timetables due to the deadlines set for compliance with the directive. This point will be examined in detail in Section X.3.

VII. Legal framework

1. Prognosis regarding the German legislature's interpretation of the directive as a basis for its implementation

The first step to be taken when assessing the costs that will arise in connection with the transposition of an EU directive is to develop a prognosis regarding how the directive will be interpreted by the national legislature which is responsible for its implementation. This step is complicated by the fact that due to the federal structure of government in the Federal Republic of Germany not only the Federal Government but also the country's state legislatures are responsible for transposing EU acts into law.

In Germany, two prognoses have been issued by experts to date regarding the action that will be needed in order to implement the draft of the Soil Framework Directive. The German Advisory Council on the Environment issued one of these assessments as part of its 2008 Environmental Report. The other was drafted by the Federal Environmental Agency and can be accessed on its website.[32] The enormous differences in the assessments of these two institutes are striking. The German Advisory Council on the Environment indicated that a significant amount of action would be needed in order to implement the directive, whereas the Federal Environmental Agency largely held that the

[32] http://www.umweltbundesamt.de/fwbs-e/aktuelles/brrl.htm

additional administrative burden would not be significant. It further stated that "the anticipated regulations will not lead to significant changes in existing German soil protection law".

(a) Assessment of the German Advisory Council on the Environment

The German Advisory Council on the Environment feels that the amount of action that will be needed to implement the Soil Protection Directive will be enormous. In its 2008 report,[33] it listed the adjustments it deems would be necessary in the event that the directive enters into force:

- In lieu of the current authorisation set forth in Section 13 of the Federal Soil Protection Act, the relevant authorities would be required to demand the submission of a remediation plan from the parties that are obligated to undertake remediation.
- The obligation to draw up remediation plans would have to be extended to apply to contaminated sites which are not particularly harmful and whose remediation does not require coordinated measures.
- An obligation to specify allocated budget funds for the remediation of contaminated sites would have to be established.
- An obligation to prioritise the areas to be remediated, bearing in mind the respective level of risk they pose to human health, would have to be established.
- The provisions of Germany's preventive soil protection legislation would have to be brought into line with the more rigorous requirements of Community law.
- The necessary adaptations would, in part, have considerable impact in practice.
- The Soil Framework Directive's entry into force would establish an obligation under Community law to remediate contaminated sites on a coordinated and strategic basis; Community institutions would be able to enforce the Member States' compliance with this obligation.
- Any dragging of feet in connection with the remediation of contaminated sites would be halted by the parameters set by Community law.

[33] Umweltschutz im Zeichen des Klimawandels,Berlin 2008; Tz 528 ff. Available on the internet at: www.umweltrat.de. An English summary of this report (Environmental protection in the shadow of climate change) is available at: http://www.umweltrat.de/cln_137/SharedDocs/Downloads/EN/01_Environmental_Reports/2008_Environmental_Report_summary.html

- In the area of preventive soil protection there would have to be provisions that would be more binding and further-reaching than those that exist under current law.

(b) Assessment of the Federal Environmental Agency

In comparison, the Federal Environmental Agency (UBA) took a totally different stance. According to the UBA, the draft Soil Framework Directive would not place any significant additional administrative burden on the Federal Republic of Germany. In particular, it stated that the anticipated regulations would not lead to significant changes in existing German soil protection law. The Federal Environmental Agency substantiated its standpoint as follows:

- Precautionary measures (Article 4) are already required by law in Germany by dint of Sections 7 and 17 of the Federal Soil Protection Act.
- In Germany, the requirement to limit sealing (Article 5) is covered by regional planning regulations and provisions contained in building law and federal nature conservation law.
- The identification of risk areas (Article 6) is also required in connection with the implementation of other provisions (for example, cross compliance).
- The programmes of measures aimed at hazard control in risk areas (Article 8) tally in large part with the requirements concerning good agricultural practice set forth in Section 17 of the Federal Soil Protection Act and other pertinent legislation.
- In Germany, the prevention of soil contamination (Article 9) is governed by Section 7 (Obligation to Take Precautions) and Section 4 (Obligations to Prevent Hazards) of the Federal Soil Protection Act.
- "Contaminated sites" (Article 10; called *Altlasten* or "inherited burdens" in Germany) are to be identified, similarly to the provisions set forth in German law, in terms of the risk they pose to human health and the environment, while taking into account the use of the land.
- The procedure that is to be used to identify sites that are suspected of being contaminated (Article 11) differs from the practice found in Germany. The Soil Framework Directive refers to "potentially soil-polluting activities" whereas in Germany "sufficient suspicion that a harmful soil change exists" suffices to necessitate action. Additional costs will be incurred in this connection. The deadlines for carrying out risk assessments of potentially contaminated sites

(100% within 25 years) may provide grounds for criticism because state-level plans are usually more ambitious (for example, in Bavaria: 100% by 2020).

- A soil status report must be made available when potentially contaminated property is sold (Article 12). The advantages and disadvantages of this provision must be weighed.
- The remediation obligations and requirements (Article 13) are analogous to the Obligations to Prevent Hazards (Section 4 of the Federal Soil Protection Act) that apply in Germany.
- A national remediation strategy (Article 14) including targets, prioritisation and timetables is, where applicable, covered by Germany's national legislation on contaminated sites and soil protection.
- In the event that the data is not already available (as is the case with contaminated sites), it is possible that reporting to the Commission will involve a greater amount of expense and manpower.

The only major disadvantages that the Federal Environmental Agency sees arising for the directive's addressees in Germany in connection with the draft Soil Framework Directive are the definition of "contamination" and the inclusion of sites used by industry (Annex I). As a result, there is the risk that once the directive is implemented, German soil protection law will operate in future on the basis of a general suspicion that sites are contaminated (reversal of the burden of proof).

2. Assumption of one-to-one implementation in the transposition prognosis

In this study it was assumed that the Soil Framework Directive will be transposed on a one-to-one basis only. The opportunity to draft new legislation that will arise in connection with the entry into force of the draft Soil Protection Directive is not expected to be used to create regulations which the directive does not stipulate. This assumption is based on point I.1.3 of the Coalition Agreement for the 17th legislative period where it was agreed that EU directives would be implemented "in a competitively neutral way ('one to one')". Therefore, where there was any doubt, the prognosis regarding the implementation of the Soil Framework Directive always assumed that provisions put in place in Germany would definitely not go beyond the requirements set forth in the directive.

3. Limited implementational discretion pursuant to Community law

EU directives and therefore also the draft Soil Framework Directive examined in this study allow national lawmakers areas of discretion in their implementation of the respective rule or directive. This discretion can also be called "implementational discretion". Exercise of implementational discretion may not however interfere with the operation of the directive.[34] For this reason, it is highly unlikely that the European Commission, in connection with, for example, the "soil impact assessment" inferred from Article 3 of the draft Soil Framework Directive, would, in respect of other policies, accept the national arrangements that have been in place in Germany to date which do not entail any or (in many cases) only a diluted form of accounting for soil protection concerns in the areas cited in the draft Soil Framework Directive.

4. Additional difficulties with implementation in Germany resulting from the country's federal structure

In Germany, federal law that implements Community law is regularly executed by state-level administrative authorities (Article 84 of the Basic Law). As a result, Germany's federal states are responsible not only for executing their state laws but, as a rule, also for the execution of federal laws. The states run their administrative authorities in their own right. They must however observe the general administrative rules which the Federal Government has issued with the consent of the Bundesrat. In this regard, they are subject to the oversight of the Federal Government. In the case of soil protection, this means that the "main law" which has been passed to regulate this area is the Federal Soil Protection Act which the federal states (and not the Federal Government) are to execute. It also means that the Federal Government's legal means for influencing the states' execution of the law are limited. This is why the interviews that underpin this study were conducted primarily with representatives of state and local governments: These offices are responsible for the — not necessarily uniform — execution of the Federal Soil Protection Act and other federal regulations which concern soil protection. Consequently, they can best assess the costs they would have to bear in connection with the implementation of the Soil Framework Directive. This particular system of allocating responsibility differs fundamentally from the systems used in other EU

[34] Cf. Berkemann/Halama, Handbuch zum Recht der Bau- und Umweltrichtlinien der EG, Bonn 2008, p. 92 f.

Member States, particularly in those Member States that have a centralised government. For this reason, the cost to the public authorities of implementing Community law is usually greater in a federally-organised state such as the Federal Republic of Germany than it is in a centralised state. This situation also had to be taken into consideration in this study.

5. Special problem: "Subsidiary jurisdiction" of local governments

(a) Constitutional situation (Art. 104a of the Basic Law; Art. 84 (1) sentence 7 of the Basic Law)

This expert opinion shows that local governments will have to bear the lion's share of the additional costs that will be incurred to Germany's public authorities. Due to this, special attention has to be directed to the constitutional aspects of their budget situation. The reason why Germany's local governments have to bear this financial burden is that whenever specially-created agencies have not been assigned special jurisdiction, a kind of "subsidiary jurisdiction" devolves upon municipal and even district governments in connection with new tasks, including new tasks that are laid down by federal law, without there automatically being more funds available to them. The Federal Government is not allowed to reimburse these costs even when it is responsible at policy level for the additional tasks. This is because the burden-sharing rule set forth in Article 104a (1) of the Basic Law which governs the public finances of the Federal Republic of Germany provides for burden-sharing only between the Federal Government and state governments. Notwithstanding their constitutionally-guaranteed autonomy, local governments are only parts of the respective state. Their responsibilities and expenditures are classed with those of the particular state. This prohibits the Federal Government from directly reimbursing a local government for (additional) spending for which the Federal Government bears responsibility. It is now even explicitly prohibited under Article 84 (1) sentence 7 of the Basic Law to assign local governments new responsibilities. This does not however change the fact that the Federal Government takes it as given that it can broaden and intensify responsibilities that already exist at local level and were occasioned by federal law. The Federal Government does not consider Article 84 (1) sentence 7 of the Basic Law[35] to pose

[35] For more regarding this: Dietsche/Glied/Kluge/Ley, "Kommunen als Bürokratieopfer" – Die Messung der Bürokratiekosten der deutschen Kommunen als erster Anwendungsfall des Standardkosten-Modells auf die öffentliche Verwaltung in: Norbert Röttgen; Bernhard Vogel,

a restriction on this practice. For this reason, additional tasks — and the concomitant expenditures — arising in the area of soil protection will also quasi-automatically devolve on the local governments and their soil protection authorities. This applies to expenditure that is directly related to the implementation of the particular task as well as to administrative expenditure.

(b) The principle of concomitant financing in state constitutional law

Under the principle of concomitant financing, a state government may assign tasks to local governments only when it also assumes responsibility for the funding that is needed for discharging these tasks. A (strict) principle of concomitant financing exists in nearly all of Germany's federal states. In this connection, it must be assumed on the basis of the current legal debate that the burdens which will directly arise for Germany's local governments as a result of decisions taken by the Federal Government or, as in this case, the European Union will not be subject to the special obligation to provide compensation because of the principle of concomitant financing which is in place in the individual states. Based on this, the Federal Government's establishment of a new task (even if it is solely in connection with the implementation of EU law) which is to be executed by rural districts and urban districts by virtue of the existing allocation of responsibilities and without any additional intermediate instrument does not constitute a delegation of tasks which triggers the principle of concomitant financing with the consequence that the respective state must reimburse the costs incurred in the performance of the task. This is not seen to be an infringement of Article 84 (1) sentence 7 of the Basic Law which precludes the Federal Government from directly delegating tasks to local governments.

It must particularly be assumed that a direct, tacit delegation of tasks to the state governments by the Federal Government has taken place when the states have no discretion of their own in the implementation of the federal provisions and it consequently cannot be established that the states bear a portion of responsibility on the lines of the costs-by-cause principle.[36] When the draft Soil Framework

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Bürokratiekostenabbau in Deutschland Entstehung, Praxis und Perspektiven, Baden-Baden 2009, 183, 206 ff.

[36] Regarding the concept of the "costs-by-cause principle" in this particular context, cf. Nierhaus, Kommunalrecht für Brandenburg, first edition, 2003, p. 55 No. 160; based on the share attributed to the party responsible for the contamination in conjunction with the state legislature's discretion as regards content, also: Zieglmeier, NVwZ 2008, 270, 271; Ziekow, DÖV 2006, 489, 491 ff.

Directive is to be implemented, this delegation of tasks could be accomplished by amending the Federal Soil Protection Act. The resultant additional tasks would devolve upon the authorities that are already responsible for soil protection — usually the local governments (rural districts, urban districts and, in some cases, municipalities that belong to a district) — without the states having to take action themselves. The consequence would be that local governments would also have to bear the financial burden of these tasks without any reimbursement of their costs.[37]

VIII. Political framework

1. Coalition Agreement

One of the political factors that influence the debate over an EU soil protection directive is the fact that in its Coalition Agreement the current government set itself the goal of also producing a plausible estimate of the consequential costs arising in connection with Community law as well (I.1.3 of the Coalition Agreement). Which is why this first-ever estimate of the consequential costs that will be incurred subsequent to the entry into force of the Soil Protection Directive is in complete conformance with the coalition parties' political declarations of intent. The resolution adopted by the Federal Government at its closed cabinet meeting held on 17 and 18 November 2009 is also in keeping with this. This resolution stipulates that regulations should be made only where they are absolutely necessary and that, in connection with Community law, only such provisions are to be created as are absolutely necessary, whereby the cost involved in their implementation is to be kept as low as possible.[38]

2. Background: public differences of opinion between the political sector and scientific community

The draft Soil Framework Directive has set off a highly contentious debate over whether it is needed. This debate is taking place not only as a general public discussion. Surprisingly it is also being conducted in the scientific community with virtually the same

[37] For more detail regarding this issue in general, cf. Kluge, "Kostenerstattung für die Kommunen – Bürokratiekostenbelastung als Fall des Konnexitätsprinzips?“ in: Norbert Röttgen; Bernhard "Vogel, Bürokratiekostenabbau in Deutschland Entstehung, Praxis und Perspektiven, Baden-Baden 2009, 209 ff.

[38] Cf. 2009 Report of the Federal Government concerning the Use of the Standard Cost Model and concerning the Status of Bureaucracy Reduction "Promote Growth: Bureaucracy Reduction and Better Regulation" Berlin, 2009, p. 21

level of energy and, in some cases, a stridence that is similar to that seen in the debate being conducted in the rest of society. Germany has had a tried-and-tested soil protection law for more than ten years now, note some participants in the debate, pointing out that this type of legislation is not however to be found in other Member States. It is further said that the planned directive would not bring burdens for German farmers or for industry. It would however be an enormous step forward for many other Member States.[39]

The German Farmers' Union (GFU) on the other hand argues — like a number of other associations — that the planned Soil Framework Directive would by no means reduce distortions of competition in Europe. The GFU contends that the aforementioned position fails to recognise that the proposals for a Community soil protection policy fundamentally call into question Germany's exemplary soil protection legislation. Soil protection is in farmers' own interest, it notes, because it preserves their means of production. Farmers however, the GFU says, reject any bureaucratisation of soil protection policy at Community level that ignores not only the successes that have already been achieved in efforts to protect the soil but also disregards existing soil protection regulations in the Member States. According to the GFU, it is not necessary to take action at European level in connection with soil protection because the land has owners who will ensure its protection in their own interest. It additionally holds that soil — an immoveable resource — can be protected only at regional level.[40]

The debate in the scientific community has been correspondingly implacable.[41] Scientists consider even the Federal Soil Protection Act to be inadequate as a result of the efforts of the well-organised agricultural lobby.[42] According to the scientific community, the temporary failure of the Soil Framework Directive in December 2007 was brought on by instructions issued by the chancellor who, "overextending her authority to determine policy guidelines", instructed the then federal minister for the environment to oppose the directive in the Council of Ministers. In doing so, the government yielded to the demands of the agriculture ministry, the CSU and agriculture lobbies.[43]

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[39] NABU press release from 23 March 2009
[40] Press release of the Deutscher Bauernverband (German Farmers' Union) from 21 December 2007
[41] Cf. for example Lee/Bückmann, "Europäischer Bodenschutz und Nachhaltige Entwicklung" - Background paper for the symposium Europäischer Bodenschutz — Schlüsselfragen des nachhaltigen Bodenschutzes held on 21 and 22 January 2008 in Berlin in: Lee/Bückmann, Europäischer Bodenschutz - Schlüsselfragen des nachhaltigen Bodenschutzes, Berlin 2008, pp. 387, 429
[42] Lee/Bückmann ibid. p. 398 f.
[43] Lee/Bückmann ibid. p. 424 f.

Regarding this debate, it must be noted here that neither of the two experts cited any substantiation for their claim that the chancellor had infringed her authority pursuant to Article 65 (1) of the Basic Law to determine policy guidelines or that, in doing so, had actually violated the constitution. Not even intensive searches turned up proof to this effect. This comment however provides an indication of the level of aggressiveness — which is rather unusual in this policy field — that marks the debate over this controversy.

IX. Premises, particularly regarding the interpretation of articles of relevance to the directive's implementation

1. Article 3

(a) Text

"Integration

Without prejudice to and where not required by Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, in the development of policies which can significantly exacerbate or reduce soil degradation processes, Member States shall take into account the impacts of such policies on those processes, in particular in areas such as regional and urban spatial planning, transport, energy, agriculture, rural development, forestry, raw material extraction, trade and industry, product policy, tourism, climate change, environment, nature and landscape."

(b) Interpretation and premises

Several premises provided the basis for the interpretation of this rule.

It must first be said that one of the participating states took the view that there is no need for action in connection with the implementation of this article. According to this state, policies within the meaning of this article would not entail any additional administrative burden because numerous legal instruments already exist for taking aspects of soil protection into account in connection with, for instance, tourism measures. To illustrate its point, this state noted that special permits issued for tourism purposes have to be reviewed to determine whether they are in

conformance with other provisions under public law which also includes soil protection regulations.

This study does not endorse this position. The above position cannot be squared with the broad term "policies". It must be remembered in this connection that, in contrast to Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive), plans and programmes alone do not fulfil the definition of the term "policy". The draft Soil Framework Directive itself assumes, based on its explicit reference to the SEA Directive remaining unaffected, that the plans and programmes regulated there are only a sub-category of the term "policy" used here. When this is the case, mere approval procedures would not be enough to fulfil the definition of "policy".

Under these circumstances, the plans and programmes mentioned in Article 3 of the draft Soil Framework Directive particularly refer to those types of plans and programmes that do not fall under Directive 2001/42/EC. These could on the one hand include policy plans since Directive 2001/42/EC excludes them.[44] There are no indications however that this also applies in the case of Article 3 of the draft Soil Framework Directive. The reason: Although the original justification for what would later become Directive 2001/42/EC expressly stated that the "general policy level at the top of the decision-making hierarchy" is not a focus of the environmental assessment provided for therein,[45] the justification for the draft Soil Framework Directive contains no such reference.

Not only policy plans but also plans which are not covered by the scope of the SEA Directive due to Article 3 (4) therein could be subject to Article 3 of the draft Soil Framework Directive. According to Article 3 (4) of the SEA Directive, its scope encompasses only those plans and programmes "which set the framework for future development consent of projects". There are a number of plans and programmes in the Federal Republic Germany which do not lay down a legal framework for the future development consent of projects but could have a significant impact on environmentally-relevant matters. The German legislature implemented this provision of the SEA Directive in Section 3 (1a) of the

[44] Cf. Verwiebe, Umweltprüfungen auf Plan- und Programmebene, Baden-Baden, 2008, p. 66 with further documents.
[45] COM(96) 511 final

Environmental Impact Assessment Act (EIA Act) by including in the environmental impact assessment to be conducted pursuant to the EIA Act those plans and programmes which are listed in Annex 3 of the EIA Act from the fields of agriculture, forestry, fishing, energy, industry including mining, transport, waste management, water management, telecommunications, tourism, regional planning and soil management, as well as other plans and programmes for which a strategic environmental assessment or a screening is to be conducted in accordance with Sections 14b to 14d of the EIA Act. Annex 3 of the EIA Act does not however contain a number of plans and programmes which could nonetheless have a positive or negative impact on the soil. Consequently, they ought to fall under Article 3 of the draft Soil Framework Directive.

Thus, (local) land use concepts and framework urban development plans[46] as well as plans of national importance (such as the Federal Transport Infrastructure Plan[47]) which would be ascribed to the policy field[48] would probably be subject to Article 3 of the draft Soil Framework Directive. The large category of informal plans such as rehabilitation / redevelopment plans pursuant to the Federal Building Code, with framework development plans (Section 140 (4) of the Federal Building Code), quarter development plans, structure plans and overviews of costs and financing (Section 149, Federal Building Code)[49] probably falls under Article 3 of the draft Soil Framework Directive. The tight time frame for this study fell far short of what was needed in order to find and examine the, in the authors' opinion, numerous plans and programmes that are probably subject to Article 3 of the draft Soil Framework Directive. All in all, the authors feel that Article 3 of the draft Soil Framework Directive is significantly underestimated in terms of the amount of implementation it will entail.

2. Article 4

(a) Text

"Precautionary and preventive measures

For the purpose of preserving the soil functions and the sustainable use of soil referred to in Article 1(1), Member States shall ensure that appropriate and proportionate measures are taken, according to national or regional circumstances:

[46] Cf. Verwiebe ibid. p. 67
[47] Töllner ibid. p. 34
[48] Töllner, Anwendungsbereich und Umsetzung der Plan-UVP-Richtlinie unter Berücksichtigung von öffentlich-rechtlichen Verträgen, Berlin, 2003, p. 15
[49] For more detail: Töllner ibid. p. 59

(a) to prevent or minimise adverse effects from actions that Member States consider are likely to hamper significantly any of the soil functions referred to in Article 1(1);

(b) to limit the intentional or unintentional introduction in order to avoid accumulation of those hazardous substances on or in the soil that would significantly hamper soil functions or give rise to significant risks to human health or the environment, excluding those due to long-range air deposition and those due to a natural phenomenon of exceptional, inevitable and irresistible character;

(c) to prevent the intentional and unintentional introduction of relevant hazardous substances on or in the soil by dumping, leaking or spilling

For the purpose of this Article, Member States may use their existing national, regional and local measures and programmes already set up under national or Community legislation, including the CAP, or international agreements as well as voluntary measures."

(b) Interpretation and premises

This study's interpretation of this rule leads the authors to assume that this article will not result in any significant burdens for Germany's public authorities. This is in line with the opinion expressed by the vast majority of the experts surveyed. This assessment was attributed, particularly by respondents in the civil service, to the fact that this rule has already been implemented through Sections 7 and 17 of the Federal Soil Protection Act. This study however sees another reason for this.

It cannot be assumed that Article 4 of the draft Soil Framework Directive is already being fully implemented through Section 7 of the Federal Soil Protection Act which was set out in further detail in Section 9 of the Federal Soil Protection Act in conjunction with Annex 2 of the Federal Soil Protection and Contaminated Sites Ordinance. The reason for this is that, firstly, obligations have been non-existent to date to take precautionary measures in connection with non-material impacts even though such impacts in the form of, for example, sludging or compaction could cause harmful changes to the soil.[50] Such changes would however be covered by letter (a) of Article 4 of the draft Soil Framework Directive.

Secondly, it follows from this that the term "dangerous substances" as defined in Article 2 (3) of the draft Soil Framework Directive — according to which "dangerous substances" are substances or mixtures within the meaning of Regulation (EC) No

[50] Cf. in express terms: Welge/Schröder, Neues Bodenschutzrecht und kommunale Vollzugspraxis, Zeitschrift für Gesetzgebung 2000, 140, 146

1272/2008 of the European Parliament and of the Council — goes well beyond the definition of the term "harmful soil changes" set forth in Annex 2 of the Federal Soil Protection and Contaminated Sites Ordinance. Consequently, in the event that the costs arising for private persons who are subject to the directive are also to be quantified, it cannot be assumed that the planned directive has already been implemented in full in Germany.

When the authors nonetheless hold that few costs will arise for public authorities, the reason for this is because Article 4 of the draft Soil Protection Directive calls for legislated implementation measures that apply to affected land users but does not require government efforts that go beyond the statutory measures. Thus the costs to be estimated were only the costs of "law production" which ultimately can be estimated only with difficulty, but would have to be called marginal compared to other cost pools.

3. Article 5

(a) Text

"Sealing

For the purpose of preserving the soil functions and the sustainable use of soil referred to in Article 1(1), taking into account relevant environmental, social and economic benefits from sealing, Member States shall take appropriate and proportionate measures

- to contain sealing, where necessary,
and
- where sealing is to be carried out, to mitigate its effects."

(b) Interpretation and premises

Here too, the public authorities surveyed take the view that this rule has already been implemented in Germany. This is also doubtful because, for example, Section 179 of the Federal Building Code (which has largely, if not entirely, replaced [51] Section 5 of the Federal Soil Protection Act in the area of building law) appears not to be implemented in the Federal Republic of Germany, as evidenced by a search of court decisions and relevant literature in JURIS, Germany's largest legal

[51] Cf. the detailed presentation regarding this in Kaiser, Bodenschutz und Bauleitplanung, Berlin 2007, p. 221 f.

database. Here too however, as in the case of Article 4 of the draft Soil Framework Directive, the effective implementation of Article 5 would not lead to significant additional costs for public authorities but only for affected private persons who fall under this law but whose situation is not the subject of this expert opinion.

The costs that will arise for Germany's federal, state and municipal governments, as owners of land, will tend to be very small and are not specified in this expert opinion. This study did not undertake an estimate of these costs because the cost of determining them would have been disproportionate to the information yield.

4. Article 6

(a) Text

"Identification of priority areas requiring special protection from soil degradation processes

1. Member States shall identify priority areas, as defined in Article 2(9), on their national territory requiring special protection against soil degradation processes defined in Article 2(10).

*2. By … *, and for the soil degradation processes erosion, organic matter decline, compaction, salinisation, landslides and acidification, Member States shall identify, having regard to paragraph 6, the soil degradation processes which are of relevance for their territory or part of their territory. For such degradation processes, Member States shall, at the administrative level and geographical scale that they consider appropriate:*

(a) evaluate, based on but not restricted to the elements set out in the indicative list in Annex I, the extent to which their national territory is subject or likely to be subject in the near future to, i.e. at risk of, such degradation processes;

(b) establish the levels of risk acceptability, which can vary from area to area, of the soil degradation processes, having regard to the objective of preserving soil function pursuant to Article 1(1) and the sustainable use of soil;

(c) identify priority areas on their national territory […] that exceed the levels of acceptability established in point (b).

3. For the purpose of the evaluation carried out under paragraph 2(a), Member States may base the identification of areas on empirical evidence or validated models. Where appropriate existing data, including maps and research, may be used.

4. For the purpose of paragraphs 2(b) and 2(c) Member States shall take into account, as far as relevant and feasible, the effects of those processes on greenhouse gas emissions, desertification and soil biodiversity loss.

5. The priority areas identified pursuant to paragraph 2(c) shall be made public and updated at least every ten years.

6. Where, on the basis of the physical and climate characteristics of its territory, a Member State

(a) considers that one or more of the soil degradation processes referred to in paragraph 2 are not occurring or will not be likely to occur in the near future in its territory or part of its territory at a level considered relevant with regard to the preservation of the soil functions pursuant to Article 1(1) and the sustainable use of soil;

(b) demonstrates that a priority area approach will not assist in addressing one or more of the degradation processes referred to in paragraph (2) which exceeds the levels of acceptability established under paragraph 2(b) because it is occurring across the whole of its territory or because it is so widely spread across its territory; it shall notify the Commission thereof within four years after entry into force of this Directive and need not identify or establish an associated priority area or areas.

Where paragraph 6(b) is applied, the Member State shall put in place action programmes in accordance with Article 8 to address those degradation processes across its whole territory, for the purpose of preserving the soil functions pursuant to Article 1(1) and the sustainable use of soil.

7. Member States shall designate the competent authorities to be responsible for the identification of priority areas."

(b) Interpretation and premises

An extremely large range of opinions among experts was seen here regarding the financial consequences for public authorities (extending from "existing data ought to be enough to identify priority areas" all the way to the position that "significant costs because a manual has to drafted before it is possible to proceed to identifying priority areas and such a manual can be developed only with the help of external experts").

The term "level of risk acceptability" has not yet been clarified. This possibly falls under the individual Member State's exclusive prerogative to make assessments. In any event, the term needs to be defined on a uniform, nationwide basis in a "methodological manual". Taking into account of the "neutral" Austrian view, it was consequently assumed that it will be necessary to develop a methodology first because the requirements set forth in the draft Soil Framework Directive must be fulfilled. Developing a methodology is additionally necessary because in the course

of implementation at certain sites restrictions will be necessary (encroachment on rights of ownership) which must stand up to judicial review.

Additional data must also be collected regarding the degradation categories: organic matter decline, compaction, salinisation, landslides and acidification. The landowners concerned must be involved in the collection of this data. Uniform methods must be developed and coordinated with the states for these risk assessments as well.

The identification and designation of risk areas is comparable with the designation of priority areas under the Habitats Directive or Natura 2000 by Germany's federal states. The number of priority areas under the draft Soil Framework Directive will probably be approximately one quarter of the Habitat areas.[52] According to MEP Weber, deputy chairman of the Group of the European People's Party, there are approximately 1,000 priority areas in the Federal Republic of Germany.[53] According to an assessment by the Federal Government which was distributed in writing to the Council Working Party on Environment in Brussels, the priority areas in Germany encompass five to eight million hectares. In the case of this latter estimate, it must be remembered that the requirements for priority areas set forth in the draft Soil Framework Directive apply not just to agricultural land (which certainly would be the most affected), but to the entire territory of the Federal Republic of Germany. In other words, they would also apply to, for example, forested and settlement areas as well as riparian and coastal areas. According to an initial estimate conducted by the Federal Ministry of Food, Agriculture and Consumer Protection on the basis of data from the states, approximately two million hectares of arable land have been classified under cross compliance as being at risk of erosion. This figure refers to areas that are actually affected by erosion and not to "priority areas" in which such areas can be found.

A significant number of objections from affected landowners is to be expected in connection with the public's participation — which is at least *de facto* necessary — because the designation as a priority area could possibly have a direct effect on the value of the land.

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[52] http://www.bfn.de/0316_gebiete.html; here the Federal Agency for Nature Conservation speaks of 4,622 FFH areas in Germany.

[53] http://www.kerner.de/europaparlament%20nimmt%20bodenschutzrahmenrichtlinie%20mit%20knapper%20mehrheit%20an_1602.html

Lastly, the monitoring of regional conditions is an ongoing process which must be given flanking support in the individual states. Further, the list of areas must be updated at least every ten years.

5. Article 8

(a) Text

"Action Programmes to combat soil degradation processes

1. For the purpose of preserving or, where technically feasible and costs are proportionate to the expected environmental and social benefits 41, restoring the soil functions and ensuring the sustainable use of soil referred to in Article 1(1), Member States shall, in respect of the priority areas identified in accordance with Article 6 and the degradation processes referred to in Article 6(6)(b), draw up, at the administrative level and geographical scale that they consider appropriate, an action programme including at least risk reduction targets, measures to reach those targets, a timetable for the implementation of those measures and an estimate of the allocation of financial resources for their implementation. Such programmes may use existing national, regional and local measures and programmes already set up under national or Community legislation or international agreements. The action programmes may include statutory, administrative or contractual measures, including cross-compliance and rural development measures within the CAP.

2. When drawing up and revising the various elements of the action programmes pursuant to paragraph 1, Member States shall give due consideration to the social and economic impacts, cost-effectiveness and technical feasibility of the measures envisaged as well as enhance coherence with existing national, regional and local measures and programmes, in particular those taken in the context of cross-compliance and rural development within the CAP.
Member States shall indicate in their action programmes how the measures are to be implemented and how they will contribute to the achievement of the targets established in application of Article 8(1).

3. Where an area is identified as requiring special protection from different concurrent soil degradation processes, Member States may adopt a single programme in which appropriate risk reduction targets are to be set for all the degradation processes identified together with the appropriate measures for reaching those targets.

*4. The action programme shall be drawn up by … * and shall be in application no later than by … **. The action programme shall be made public and shall be updated at least every five years and reviewed at least every ten years."*

(b) Interpretation and premises

The amount of implementation that will be needed at local level in connection with this article, in for example the form of adjustments in land-use plans, will be significant. Similarly to the implementation of the Habitats Directive, local governments will have to carry out the requirements arising in connection with the designation of priority areas and adjust their local or regional plans (usually land-use plans). These plans are then to be overseen and/or monitored.

Soil maps will have to be revised and completed before local plans can be adjusted. Even though large amounts of data and numerous databases are already available, they will have to be conflated. In addition, the databases will have to be maintained and updated on a regular basis.

The action programmes will have to be drawn up at state level, like for example the management plans that were developed in connection with the implementation of the Habitats Directive. The experience gathered with the Water Framework Directive can be drawn upon in connection with the maintenance of these plans: As in the case of the Water Framework Directive, consultants and technical advisors will be needed on a long-term basis for the implementation of the Soil Framework Directive.

Since the agricultural sector will be significantly affected by the Soil Framework Directive, the lower agricultural authorities will have to meet the increased need for advisory services.

The Soil Framework Directive will additionally lead to an increased inspection burden which will go substantially beyond the burden arising from the cross-compliance requirements that have applied to date to agricultural crop land (example: soil management based on erosion cadastres). This is due, first of all, to the inclusion of additional types of land use but in particular to the obligation to establish risk reduction targets whose achievement must be documented after a certain period has elapsed. According to Article 8 (4), action programmes must be updated at least every five years and reviewed at least every ten years. Proof that the risk reduction targets have been met must be provided in connection with these activities. If necessary, the risk reduction targets are to be subsequently

adjusted or new targets are to be set. It must additionally be assumed that surveyors will also have to be included in the inspection burden because the exact cadastral parcels may possibly have to be examined.

6. Article 10

(a) Text

"Identification and inventory of contaminated sites

1. In order to ensure that soil contamination is addressed systematically, it is necessary for Member States to define and apply a general policy for contaminated sites, which shall rely on the obligations for identification of sites linked to potentially soil-contaminating activities, identification of contaminated sites, […] soil status reports, and remediation of contaminated sites.

2 For the purposes of paragraph 1, Member States shall:
(a) within one year from [transposition date], adopt and make public, a list, covering the whole territory of the Member State and at the administrative level that the Member State considers appropriate, of potentially soil-contaminating activities based on the activities set out in the indicative list in Annex II; within seven years from [transposition date], have identified, if they have not yet done so, the location of at least the sites where the potentially soil-contaminating activities as indicated in the list defined pursuant to the preceding subparagraph, are taking place or have taken place in the past.

The results of this identification shall be compiled in a register of sites linked to potentially soil-contaminating activities as defined in Article 2(7) which shall be updated at least every five years. Sites, where potentially contaminating activities are taking or have taken place, identified after this deadline shall continue to be assessed as provided for in paragraph 2(b), and identified as contaminated in accordance with paragraph 4 and be made subject to the prioritisation process provided for in paragraph 5, as appropriate. This register shall be taken into account for land use planning and development.

(b) for the sites identified in accordance with point (a), ensure that the competent authorities designated in paragraph 6 make sure that the specific identification procedure defined below to determine whether the site is a contaminated site is applied. For the purpose of accelerating the identification of contaminated sites, Member States may take into account changes of land use on these sites as one of the triggers to apply this specific identification procedure. This specific identification procedure shall include:

(i) an analysis of the existing information on present and past activities on the site, in particular as regards the handling, the use and storage of relevant hazardous substances over time, and any evidence of accidents involving the emission of relevant hazardous substances;

(ii) an analysis of the presence of human or environmental receptors that could suffer from any contamination, taking into account all known relevant contaminant pathways;

(iii) if the analysis carried out under points (i) or (ii) indicate a significant probability of a site being a contaminated site, Member States shall apply one of the following alternatives:

either

- *ensure that the concentration levels of relevant hazardous substances linked to the activities carried out on the site are measured, and for that purpose, Member States shall establish the methodology necessary for determining those concentration levels. For those sites where the concentration levels of relevant hazardous substances are such that there are sufficient reasons to believe that they may pose a significant risk to human health or the environment, Member States shall ensure that a site-specific risk assessment is carried out, which also takes into account the risk to groundwater;*

or

- *ensure that a site-specific risk assessment is carried out which also takes into account the risk to groundwater, and for that purpose, Member States shall establish the risk assessment methodology.*

If the assessments carried out pursuant to either point (i), (ii) or (iii) have concluded that there is no significant probability that a site is contaminated, Member States are not required to investigate further that site. Where additional information is obtained which has the potential to result in a material change in the contamination status of a site, a revised site specific risk assessment shall be carried out in accordance with the specific investigation procedure described above. Member States may determine that a site is a contaminated site on the basis of the outcomes of either point (i), (ii) or (iii). Member States may proceed directly to the identification steps set out in point (iii) to determine whether a site is contaminated.

3. *Member States may exempt from the identification procedures set out in paragraph 2(b):*

- *operating installations [as defined in Article 3(3) of the Directive of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control) (Recast)] * which have been granted a permit to operate that includes obligations to prevent soil contamination and to monitor the state of the soil. The outcome of the monitoring shall be made available to the competent authorities for the purpose of Article 10(2)(b);*

- *sites which they have already identified as contaminated sites prior to [transposition date];*

- *sites which they have already identified as non contaminated sites prior to [transposition date], if the information on which the identification was based provided the same level of certainty as the provisions in paragraph 2(b) and*

if there have not been other changes which could influence the state of the soil.

4. *Member States shall, in accordance with the identification procedure laid down in paragraph 2(b), identify contaminated sites on their national territory. Member States shall establish an inventory or inventories of contaminated sites, covering the whole of their national territory, which shall be finalised within 25 years of [transposition date], having regard to continuous update requirements. The inventory or inventories shall be made public and updated at least every five years in particular to include new contaminated sites that have been identified. When updating the inventory or inventories, Member States may exclude the sites which have undergone remediation.*

5. *In order to have proactive and preventive actions and to maximise efficiency of the identification of contaminated sites, the identification procedure provided for in paragraph 2(b) shall be performed, if not already performed, on the basis of prioritisation to be established by the Member State within five years from [transposition date], at the administrative level and geographical scale that Member States consider appropriate. Such prioritisation shall give precedent to the investigation of those sites where hazardous substances as referred to in Article 57 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 * can be found, or to sensitive uses on sites according to the relevant receptors and to any other criteria that a Member State considers relevant on its territory. Furthermore, Member States should perform the identification procedure according to the following indicative timetable:*

   (i) within seven years from [transposition date], for at least 10 % of the sites identified in accordance with paragraph 2(a);

   (ii) within 15 years from [transposition date], for at least 60 % of the sites identified in accordance with paragraph 2(a).

6. *The European Parliament and the Council shall, on the basis of a report by the Commission to be presented two years from the date referred to in paragraph 5(i), examine the practical experience gained in the Member States and progress made in the pursuance of the deadline and the targets established under paragraphs 4 and 5 respectively. If appropriate, no later than one year after the adoption of the Commission report established pursuant to the preceding subparagraph, the European Parliament and the Council shall, in accordance with Article 251 of the Treaty, review the deadline established pursuant to paragraph (4).*

7. *Member States shall designate the competent authorities to be responsible for the identification of sites linked to potentially soil-contaminating activities and contaminated sites."*

(b) Interpretation and premises

The requirements set forth in Article 10 of the draft Soil Framework Directive are far from being covered by Sections 9 and 11 of the Federal Soil Protection Act: Section 9 of the Federal Soil Protection Act is only a discretionary provision. This

interpretation is also supported by the text of Section 10 of the Federal Soil Protection Act. Since the requirement to identify sites is not influenced by the question of whether the use of the land has been approved, the number of sites that have yet to be identified will increase significantly compared to the number of former industrial sites which have already been identified under current law.

In addition, the list of indicative activities cited in Annex II expands the scope of the directive beyond that of current law.

At local level, not only will registers have to be consolidated but additional measurements will also have to be conducted. Measurements will possibly also have to be conducted on sites which were previously considered to be rehabilitated because additional parameters will probably have to be investigated in the future.

7. Article 12

(a) Text

"Soil status report

1. *Within one year from [transposition date], on a site on which an activity included in the list established pursuant to Article 10(2)(a) is taking place, on a site included in the national register of sites established pursuant to Article 10(2)(a), and on a site for which the official records, such as databases and cadastres, show such an activity has taken place in the past, Member States shall ensure that a soil status report is made available to the competent authorities as referred to in Article 10(7):*

   - *by the owner of that site or the prospective buyer when the site is sold, making it also available to the other party in the transaction, and*

   - *by the owner of that site or a relevant third party, when there are land use changes, including development, which the Member State considers relevant.*

2. *Without prejudice to Community and national liability regimes, the soil status report shall be issued by a body or person authorised by the Member State.*

3. *Member States shall decide on the information that must be included in the soil status report which may vary according to the use of the land, the size of a proposed development or any other relevant factors. The soil status report shall, at least, contain information, including, if available, historical data, on the present and past activities on the site, and, if readily available, information on the handling, the use and storage of relevant hazardous substances over time and […] any evidence of accidents involving the emission of relevant hazardous substances. As part of the soil status report, Member States may*

require information on the presence of human and environmental receptors that could suffer from any contamination and a chemical analysis for all the sites referred to in paragraph 1, determining the concentration levels of the relevant hazardous substances in the soil, limited to those substances that are linked to the activities carried out on the site. For that purpose, Member States shall establish the methodology necessary for determining those concentration levels.

4. *Competent authorities may use the information contained in soil status reports for the purpose of identifying contaminated sites in accordance with Article 10.*

5. *Already existing and readily available information, such as official records, on the sites referred to in paragraph 1 shall be made available upon request to the owner of the site or to the prospective buyer or to a relevant third party for the purpose of producing the soil status report.*

6. *Member States shall establish a period of validity for the soil status report that they consider appropriate, but not longer than 10 years. During such period, the same report can be made available for successive transactions, provided that there have not been other changes which could influence the state of the soil, taking into account the intended land use. In case that on a specific site an activity included in the list established pursuant to Article 10(2)(a) has ceased, the most recent soil status report drawn up for this site after cessation of the activity shall be valid until an activity included in the list takes place again."*

(b) Interpretation and premises

This provision calls for a soil status register. An existing body or a body which is to be newly created must be assigned responsibility for keeping and making available soil status reports. This body will be attached either to the judicial administration (land registry office) or local government (for example, the environmental agency) which would also be responsible for issuing "negative clearances" so that notaries public and land registry offices and ultimately buyers have a means to check whether a site is contaminated. It is assumed that the bodies that maintain these registers will be attached to the local governments.

The Federal Government and state governments are to develop the reporting format for a model soil status report in advance in order to develop a standard that applies nation-wide.

8. Article 13

(a) Text

"Remediation

1. *Member States shall ensure that the contaminated sites listed in their inventories of contaminated sites, pursuant to Article 10(4), are remediated according to paragraph 2. For that purpose, Member States shall have regard to the strategy drawn up pursuant to Article 14. Without prejudice to the strategy drawn up pursuant to Article 14, Member States may require immediate remediation for any contaminated site and shall also ensure that, where imminent threats to human health or the environment exist, temporary and urgent measures are taken to limit or to prevent further adverse effects.*

2. *When deciding on the appropriate remediation actions, Member States shall give due consideration to social, economic and environmental impacts, cost-effectiveness and technical feasibility of the actions envisaged. In case of proven significant risks to water resources, remediation objectives shall be established taking into consideration relevant Community water legislation. Remediation action may consist of monitored natural recovery.*

3. *If the means required for remediation are not technically available or only available at a disproportionate cost with respect to expected environmental benefits, sites may be conditioned in such a way that they do not pose any significant risk to human health or the environment, including by restricting access to and use of them. For the same reason Member States may change the approved land use of a site to a less sensitive use, provided it will not pose any significant risk to human health or the environment.*

4. *Where containment, monitored natural recovery, restriction of access or land use change are applied, the evolution of the risk to human health or the environment shall be monitored.*

5. *If not already established, and having regard to paragraph 2, Member States shall set up appropriate economic mechanisms to provide for the investigation and remediation of the contaminated sites for which, subject to the polluter pays principle, the natural or legal person responsible for the contamination cannot be identified or cannot be held liable under Community or national legislation or may not be made to bear the costs of the investigation and remediation.*

6. *Where, in the cases referred to above, Member States fund the investigation and remediation, they shall, where Member States consider appropriate, endeavour to recover the costs they have incurred in relation to the investigation and remedial measures taken pursuant to this Directive."*

(b) Interpretation and premises

In contrast to current law, this provision imposes a mandatory obligation to remediate contaminated sites. This obligation cannot be qualified according to the respective financial situation.

These remedial obligations are further-reaching because they are mandatory. They will affect the public sector in many cases because there is a fundamental constitutional rule in the Federal Republic of Germany which can be broken only under special circumstances. Under this rule the private party that is responsible for rehabilitating a contaminated site is liable only up to the amount of the site's market value after its rehabilitation.[54] Particularly in areas with generally lower market values, the costs that the *Zustandsverantwortlicher* (individual or legal entity who, through situation, ownership or possession, is responsible for the contamination) must bear will therefore fall far short of what is needed in order to successfully remediate the land as set forth in the EU provisions.

The obligation to remediate contaminated soil also applies to land for which an existing licence — issued pursuant to Section 6 of the Federal Immission Control Act, for example — permits in principle activities that lead to soil degradation. As is generally known, the existence of an official permit can, in isolated cases, exclude a *Verhaltensstörer* ("disturber through action") from being held liable under regulatory law. This particularly applies when the activity — which has since turned out to involve contamination or soil degradation — was expressly permitted at one time in the past and the permit continues to have legal effect.[55] A consequence of the obligation to remediate contaminated land that arises from the draft Soil Framework Directive would be that existing licences would no longer have a legalising effect vis-à-vis this provision.

Article 13 (5) of the draft Soil Framework Directive is also of particular importance. This article obligates Member States to set up "economic mechanisms" to provide for the investigation and remediation of contaminated sites when the party who is responsible for causing the contamination does not bear the costs of the remediation. This type of mechanism can take the form of, for example, a

[54] Federal Constitutional Court, Decision from 16 February 2000 – 1 BvR 242/91, 1 BvR 315/99
[55] Cf. most recently Düsseldorf Administrative Court, decision from 25 November 2008 – 17 K 6149/07 – with reference to existing high court decisions

remediation charge. The proceeds from this charge would go to a "remediation fund". The following instruments which are familiar from, for example, the discussion conducted in the European Parliament[56] come into question as economic mechanisms within the meaning of Article 13 (5) of the draft Soil Framework Directive:

- A charge on petrol to help pay for the remediation of contaminated soil at petrol stations (said to already be done in Flanders)
- A charge for the remediation of contaminated soil at cleaners (apparently already established in the Netherlands)
- Establishment of a remediation fund
- Tax exemptions and tax relief, tax refunds
- Direct price support systems
- The introduction of an obligation to provide a guarantee as in the directive on the management of waste from extractive industries

The use of such instruments will also require public funds because the Member States must in any event ensure the identification and remediation of affected sites via these mechanisms and Article 13 (6) expressly assumes a scenario in which the Member States fund the costs of investigations and remediation (for example, in the case that the party responsible for causing the contamination is insolvent). Since it is unclear whether and to what extent public funds would have to be allocated and whether and to what extent refinancing would be possible using suitable charges, the "economic mechanisms" were not taken into account in the assessment of the compliance costs.

This provision however entails a significant additional cost risk for public authorities.

9. Article 14

(a) Text

"Remediation strategy

1. *Member States shall, on the basis of the inventory of contaminated sites and by … , draw up a remediation strategy or strategies covering the whole of their national territory, including at least remediation targets, a prioritisation, taking particular account of significant risks to human health or the environment, a timetable and financial resources for implementation.*

[56] Resolution taken by the European Parliament on 14 November 2007, Amendment 83

2. The remediation strategy shall be in application and made public by … . It shall be reviewed at least every five years."

(b) Interpretation and premises

The Commission assumes that the inventory of contaminated sites will be completed within nine years of the Directive's entry into force. Therefore, by this time at the latest, the timetable for working off all remediation cases must be fixed and the funds that are to be expended must be specified. This means that the deadline for the full implementation of Article 13 of the draft Soil Framework Directive must also be set by that time.

Assuming on the basis of a generous estimate — following, for instance, an Austrian estimate — that the Commission would be satisfied with a 30-year time frame for the remediation of contaminated sites for the purposes of Article 13 of the draft Soil Framework Directive, this would mean for Germany as well that all necessary remedial measures would have to be completed within 30 years of the date of entry into force of the Directive. Based solely on German law, it would be highly unlikely in view of the aforementioned constitutional rules governing public finances in the Federal Republic of Germany that it would be possible to finish the remediation of contaminated sites within the next 30 years. It must be pointed out in this connection that in its Special Report "Contaminated Sites II" released on 2 February 1995[57] the German Advisory Council on the Environment assumed a financial burden of DM 184 billion to DM 925 billion (in other words: approximately € 90 billion to € 460 billion). These figures have not been adjusted in the intervening time because reliable, more recent statistics have not become available in the meantime — from any source. Consequently, they continue to provide the basis for assumptions.

Furthermore, the Federal Government's Second Soil Protection Report from the year 2009[58] estimated that the current expenditure by public authorities totals some € 500 million a year. Assuming that public authorities have actually spent this sum every year since 1995, they would have spent only some € 7.5 billion on remediation to date — and that in times where cost-consciousness was not yet as pronounced as it is today.

[57] Bundestagsdrucksache (printed document of the German Bundestag) 13/380, p. 84 f.
[58] Bundestagsdrucksache (printed document of the German Bundestag) 14/9566

Even assuming the least-likely but most cost-effective scenario that only € 90 billion of the costs estimated by the German Advisory Council on the Environment would arise and additionally assuming the unlikely but cost-effective scenario that Germany's public sector would have to bear only one-third of this amount (€ 30 billion) despite the previously-mentioned limitation that the constitution places on holding the *Zustandsstörer* ("disturber through situation, ownership or possession") liable, there would still be a financial requirement of more than € 22.5 billion.

Under these circumstances, still assuming that Germany's public authorities could continue to provide € 500 million a year — which is also rather unlikely — it would take 45 years before the remediation of all sites would be finished. However, it is much more likely that the actual remediation requirements are in fact even greater than those estimated by the Germany Advisory Council on the Environment in 1995 because suspected sites have been added in the meantime. It is also much more likely that the funding requirements will lie somewhere in mid-field, in other words around € 250 billion (this would equal € 83.3 billion for public authorities). Therefore, assuming that the pace of remediation work and the level of financial commitment remain the same, the remediation of all sites might possibly be completed by the end of the next century.

Under these circumstances, it was also necessary to carry out a comparative cost calculation that shows the present value discount to public authorities that arises from the fact that the pace of remediation would have to be stepped up by virtue of Community law due to the provisions of Article 13 of the draft Soil Framework Directive and the timetable foreseen therein and the fact that it will not be possible to take into account the current financial circumstances of Germany's public authorities.

10. Article 15

(a) Text

"Awareness raising

Member States shall take appropriate measures to raise awareness about the importance of soil for human, biodiversity and ecosystem survival, of preventive

measures for preserving soil functions, to promote the transfer of knowledge and experience for a sustainable use of soil."

(b) Interpretation and premises

General public relations work will be conducted via information measures such as placards, internet portals and flyers.

11. Article 15a

(a) Text

"Public participation

1. *For the purposes of this Article, "the public" shall mean one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups.*

2. *Member States shall ensure that the public is given early and effective opportunities to participate in the preparation, modification and review of the action programmes referred to in Article 8, of the national list of activities referred to in Article 10(2)(a), of the prioritisation referred to in Article 10(5) and the remediation strategies referred to in Article 14. To that end, Member States shall ensure that:*

   (a) the public is informed, whether by public notices or other appropriate means such as electronic media where available, about any proposals for these action programmes and remediation strategies or for their modification or review and that relevant information about such proposals is made available to the public including inter alia information about the right to participate in decision-making and about the competent authority to which comments or questions may be submitted;

   (b) the public is entitled to express comments and opinions when all options are open before decisions on the action programmes and remediation strategies are made;

   (c) in making those decisions, due account shall be taken of the results of public participation;

   (d) having examined the comments and opinions expressed by the public, the competent authority makes reasonable efforts to inform the public about the decisions taken and the reasons and considerations upon which those decisions are based, including information about the public participation process.

3. *Member States shall identify the public entitled to participate for the purposes of paragraph 2, including relevant non-governmental organisations meeting any requirements imposed under national law, such as those promoting environmental protection. The detailed arrangements for public participation under this Article shall be determined by the Member States so as to enable*

the public to prepare and participate effectively. Reasonable time-frames shall be provided allowing sufficient time for each of the different stages of public participation required by this Article.

4. *This Article shall not apply to action programmes and remediation strategies for which a public participation procedure is carried out under Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment."*

(b) Interpretation and premises

The costs for the public's formal and informal participation were taken into account in the special plans and programmes pursuant to Articles 6 and 8 of the draft Soil Framework Directive. The authors of this expert opinion assumed that the identified costs would arise even if these provisions of the draft Soil Framework Directive were not to result in formalised public participation but rather only informal public participation were to take place.

12. Article 16

(a) Text

"Reporting

1. *Member States shall indicate to the Commission by … , and every five years thereafter, how the following information to be made publicly available pursuant to this Directive can be accessed:*

   (a) the priority areas identified pursuant to Article 6(2)(c);
   (b) the action programmes drawn up pursuant to Article 8(1);
   (c) a national list of activities which have a significant potential to cause soil contamination drawn up pursuant to Article 10(2)(a);
   (d) prioritisation pursuant to Article 10(5);
   (e) the inventory of contaminated sites established pursuant to Article 10(4);
   (f) the remediation strategy or strategies adopted pursuant to Article 14(1);

2. *Furthermore, Member States shall make the following information available to the Commission in an electronic format by … , and every five years thereafter:*

   (a) a summary of the measures taken pursuant to Article 5;
   (b) the methodology used for identifying priority areas pursuant to Article 6(3);
   (c) a summary containing the number of sites referred to in Article 10(2)(a) at the appropriate administrative level and specified by type of activity as well as the number of the sites fully investigated pursuant to Article 10(2) during the reporting period;
   (d) metadata on priority areas identified pursuant to Article 6(2)(c) as documented digital georeferenced data in a format that can be read by a geographic information system (GIS) in accordance with Directive

2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE);

(e) a summary of the measures taken pursuant to Article 15."

(b) Interpretation and premises

This provision concerns a number of EU reporting obligations. To assess these obligations, the Fachhochschule des Mittelstands drew on data regarding other Community reporting obligations which it gathered during a study it conducted in 2009 of the selected local governments of Bünde, Lippe District and the two *kreisfreie Städte* (towns constituting a district in their own right) Baden-Baden and Freiburg.[59] These figures were obtained in interviews conducted with these local governments. Most of these figures had also been ascertained for reports to be issued in connection with environmental Community directives. They are broadly similar because the amount of time employees of local governments spend in connection with the preparation of these reports for superior authorities is probably comparable.

13. Article 17

(a) Text

"Exchange of information

*By … *, the Commission shall set up a platform for the exchange of information between Member States and with stakeholders on the implementation of this Directive, particularly best practice for soil protection and remediation, the priority area identification pursuant to Article 6, on risk assessment methodologies for contaminated sites currently in use or under development, and on economic mechanisms."*

(b) Interpretation and premises

Here too, data was used which the Fachhochschule des Mittelstands gathered with regard to other Community reporting obligations during the study it conducted in 2009 of selected local governments (see the above comments regarding Article 16 of the draft Soil Framework Directive).

[59] In this connection: Dietsche/Glied/Kluge,/Ley, Kommunen als Bürokratieopfer – Abschlussbericht zur ersten Studie zur Übertragung des Standardkosten-Modells auf die öffentliche Verwaltung, in: Klippstein/ Röttgen, Bielefeld 2009

14. Article 20

(a) Text

"Commission report

1. *The Commission shall publish the first evaluation report on the implementation of this Directive within two years of receiving the action programmes and remediation strategies. The Commission shall publish further reports every five years thereafter. It shall submit the reports to the European Parliament and to the Council.*

2. *The reports provided for in paragraph 1 shall include a review of progress in the implementation of this Directive based on an assessment by the Commission based on information provided in accordance with Article 16."*

(b) Interpretation and premises

Here as well, data was used which the Fachhochschule des Mittelstands gathered with regard to other Community reporting obligations during the study it conducted in 2009 of selected local governments (see the above comments regarding Article 16 of the draft Soil Framework Directive).

15. Article 22

(a) Text

"Penalties

Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission by the date specified in Article 24 at the latest and shall notify it without delay of any subsequent amendment affecting them."

(b) Interpretation and premises

This provision concerns the triad (effectiveness, proportionality and dissuasiveness) customarily set forth in Community liability law through which Member States are obligated to take dissuasive sanctions. In the event that such sanctions cannot be generated via civil law (as is probably the case here), they must then be taken under public law (most importantly, criminal law and regulatory offences law). For this reason, it is felt that this provision will primarily affect land

users rather than public authorities. However, there is some indication that the government's "making available" of criminal law and regulatory offences law will cost the government, and the federal states in particular, money. The government expenditure arising from this could not however be adequately estimated within the limited scope of this study.

X. Results of the estimates

1. Costs to the Federal Government

(a) Premises used in connection with the extrapolations

1. It was assumed that a one-to-one implementation will be the standard used for implementation of the directive in Germany. It was assumed that there will be no "gold plating".
2. It was assumed that the legal requirements that have applied to date will be handled in conformity with the law (no gaps in their implementation by public authorities).
3. A rate of € 60 / hour was set for a personnel hour (it was assumed that implementation activities would regularly involve staff members in higher intermediate / higher service or comparably-paid salaried employees). The estimate consists of (as recommended by the Kommunale Gemeinschaftsstelle für Verwaltungsmanagement – Municipal Association for Administration Management) personnel costs (salaries, including pension supplements, social benefits, etc.), material costs (the cost of equipping and furnishing a workplace, rental, costs for the use of information technology, etc.) and overhead expenses (in other words, indirect costs, particularly for cross-departmental agencies and internal costs for managerial tasks, typing services, archiving, etc.).
4. One person month (PM) is 150 hours.
5. The Federal Government on the one hand and Germany's state governments on the other will participate in equal part in the development of methodological manuals.
6. The study did not take the costs for the development and adoption of legislation into account. It did include the costs for the preparatory work done by experts.

(b) The cost estimates by article:

Article 3 of the draft SFD – Integration

The soil impact assessment will be incorporated into Environmental Impact Assessment Act. Further costs will arise for the Federal Government. These costs could not however be determined within the scope of this study (see premises to Article 3 of the draft Soil Framework Directive).

Article 4 of the draft SFD – Precautionary and preventive measures

A methodological manual must be developed for the definition of "hazardous substances" for the purposes of Article 4 of the Soil Framework Directive. This manual must examine other potentially hazardous substances above and beyond the "hazardous substances" defined in the Federal Soil Protection Act and the Federal Soil Protection and Contaminated Sites Ordinance. Limit values must be set.

It is estimated that this will entail the one-off amount of
€ 864,000
(6 PM = € 54,000 x 16 as the Federal Government's share).

Article 5 of the draft SFD – Sealing

Implementation of this article will not lead to any costs for the Federal Government because the burden arising from this provision will be on private property owners as a rule.

Article 6 of the draft SFD – Identification of priority areas requiring special protection from soil degradation processes

The Federal Government must develop the methodology to be used to identify areas at risk ("methodology manual").

Limit values must be developed for the aspects:

- Erosion by water
- Erosion by wind
- Organic matter decline
- Compaction
- Salinisation
- Risk of mudslides
- Acidification

It is estimated that the development of the "methodology manual" will entail one-off costs for
12 PM, in other words:
the one-off amount of € 108,000.

This estimate is very conservative. A significantly higher amount is conceivable since differences of opinion are to be expected between the parties involved in the consultation process.

The costs that will arise for the Federal Government as the owner of land (such as forests) could not be taken into account in this study. Costs could however arise for the Federal Government in this regard, for example in connection with the designation of forests that are hyperacidic or at risk of compaction as priority areas, together with the development of the requisite action programme. The Federal Government alone owns 380,000 hectares of forest.

Article 8 of the draft SFD – Action Programmes to combat soil degradation processes

The only costs that will arise for the Federal Government as a result of this article will be legislative costs.

Article 10 of the draft SFD – Identification and inventory of contaminated sites

Since this requirement concerns Germany's states, no costs will arise for the Federal Government in connection with this article.

Article 12 of the draft SFD – Soil status report

The Federal Government and state governments will have to develop a model soil status report in order to ensure a uniform national standard for said report.
The **one-off** costs that this will entail for the Federal Government were estimated at
€ 1.3 million

(9 PM = € 81,000 x 16 as the Federal Government's share).

Article 13 of the draft SFD – Remediation

The Federal Government owns many parcels of contaminated land (in particular sites which were previously used for military purposes) which will have to be rehabilitated in the future within a specific period of time that will have to be stipulated. Since numbers, particularly the number of sites which were contaminated through former military use, are not yet known, it was not possible to undertake an estimate here. The authors are however of the opinion that this figure will be substantial.

Article 14 of the draft SFD – Remediation strategy

The drafting of national remediation strategies must be coordinated between the Federal Government and state governments. It is estimated that the costs to the Federal Government for this will total
€ 864,000 per year.

Articles 15 -17 of the draft SFD – Public participation, Reporting and Exchange of information

The costs of the Federal Government's information and public awareness activities also includes the costs that will arise for the Federal Government because it must exercise oversight to ensure that "the Länder execute federal laws in accordance with the law" (Article 84 (3) of the Basic Law). This means that the Federal Government must deal with and decide on complaints from citizens, petitions and opinions.

Reports will be used to raise public awareness. The Federal Government will report to the Commission in accordance with the requirements and will participate in a platform for the exchange of information as set forth in Article 17 of the draft Soil Framework Directive.
A total of 6 PM / year, in other words,
€ 54,000 per year

is estimated for this.

Summary

In summary, the costs arising for the Federal Government were calculated as follows:

- annual costs in the amount of € 918,000 and
- one-off costs in the amount of € 2,272,000.

The following table shows a break-down of these costs by individual article of the Soil Framework Directive:

Article of the SFD	Annual costs to the Federal Government	One-off costs to the Federal Government
Art. 3		
Art. 4		€ 864,000
Art. 6		€ 108,000
Art. 8		
Art. 10		
Art. 12		€ 1,300,000
Art. 13	Could not yet be determined	Could not yet be determined
Art. 14	€ 864,000	
Art. 15 -17	€ 54,000	
Total:	**Annually: € 918,000**	**One-off: € 2,272,000** *

* This figure does not include the costs for the remediation of federally-owned land, in particular the costs for the remediation of federally-owned land which was previously used for military purposes.

2. Costs to the states

(a) Premises used in connection with the extrapolations

The analysis here was based on interviews conducted in the states Baden-Württemberg, Bavaria, Mecklenburg-Western Pomerania and North Rhine-Westphalia.

1. Where possible, this study drew upon comparable procedural phases and benchmark figures from the implementation of the Habitats Directive in connection with the designation of priority areas and their implementation.
2. The soil protection maps required under the draft Soil Framework Directive will be drawn up by the states. The local governments will have to do the groundwork for the states.
3. The soil status registers which are required under Article 12 of the Soil Framework Directive will be set up in the local governments.
4. As a result of Article 3 of the draft Soil Framework Directive, Germany's federal states will have to adapt plans and programmes on a continual basis.
5. The states will together bear half of the costs of developing the methodology manuals. This expert opinion does not address the allocation key based on the "Königstein" formula because costs were not calculated for individual states.
6. The costs in North Rhine-Westphalia and Baden-Württemberg were each multiplied by 10 for the entire country because these two states each take up approximately 10% of the area covered by the Federal Republic of Germany.
7. The costs in Bavaria (some 20% of Germany's federal territory) were multiplied by 5 for the entire country.
8. The costs that were incurred in Baden-Württemberg for the development of action plans under the Habitats Directive (so-called management plans) over a period of ten years were used to calculate the costs of measures pursuant to Article 8 of the Soil Framework Directive. The costs from Baden-Württemberg were divided by four because it is assumed that the amount of "Habitats" land is four times greater than land that falls under the draft Soil Framework Directive.[60]

[60] See the premises to Article 6 of the draft Soil Protection Directive.

(b) Cost estimates by article:

Article 3 of the draft SFD – Integration

Article 3 of the draft Soil Framework Directive stipulates that in the development of policies which can significantly exacerbate or reduce soil degradation processes, Member States must examine the impact these policies will have on said processes.

The aspects

- erosion by water,
- erosion by wind,
- organic matter decline,
- compaction,
- salinisation,
- risk of mudslides, and
- acidification

must be taken into account in future, particularly in areas such as

- plan development procedures,
- area development plans and sector planning,
- energy plans,
- agriculture,
- concepts for rural development,
- forestry plans,
- raw material extraction,
- trade and industry,
- product policy,
- tourism development,
- climate and
- environment, nature and landscape.

For each of these aspects, it will be necessary to carry out

- investigations,
- assessments and
- decisions that strike a balance between conflicting objectives and interests.

This will necessitate legislative action and regulation on the part of the states. Several states estimated that this would require at least (see the above premises) 12 PM/year. Looking at the above-outlined premises regarding the interpretation of this rule, the authors feel that these

assumptions are significantly too low. Nonetheless, the values provided in the interviews were used as the basis for this estimate because it was not possible in the course of this study to determine the consequential costs (which will probably be much higher). Calculated on the basis of the data provided through these interviews, the consequential costs are estimated to total 1,800 hours x € 60 x 16 states
or
€ 1.7 million per year.

Article 4 of the draft SFD – Precautionary and preventive measures

Article 4 of the draft Soil Framework Directive obligates Member States to prevent or minimise measures which significantly hamper soil functions, to limit the introduction of hazardous substances and thus avoid accumulation of those hazardous substances, and prevent the introduction of relevant hazardous substances.

A "methodology manual" will have to be developed for this. The Federal Government and state governments will share the costs involved in this. Definitions of the "hazardous substances" will have to be developed. Other potentially hazardous substances, over and above "hazardous substances" as defined by the Federal Soil Protection Act and the Federal Soil Protection and Contaminated Sites Ordinance will have to be investigated. Limit values will have to be set.

It is estimated that this will entail 6 PM = € 54,000 x 16 = in other words,
the one-off amount of € 864,000
for the states.

Article 5 of the draft SFD – Sealing

Sealing conducted at local level was taken into account in connection with the development of area development plans in accordance with the provisions set forth in the Federal Nature Conservation Act. Action at state level will not be required.

Article 6 of the draft SFD – Identification of priority areas requiring special protection from soil degradation processes

It was assumed that the procedure used to identify priority areas will follow the lines of the procedure used in the implementation of the Habitats Directive. Based on this, the identification of priority areas will be carried out at state level.

Priority areas will be identified using a formal procedure with public participation. The following aspects will constitute the main criteria used during the identification procedure:

- Erosion by water
- Erosion by wind
- Organic matter decline
- Compaction
- Salinisation
- Risk of mudslides
- Acidification

The register of priority areas will be made public and updated every ten years.

It was assumed that at least five hazards will be identified for each state. This supposition was derived from an assumption from Bavaria. Extrapolated to Germany as a whole (factor of 5 because an area-based extrapolation was considered to be appropriate here), it is to be expected that a minimum of 25 hazards will be identified.

a. One-off costs

Participation in the development of the methodological manual will incur **one-off costs of € 108,000**.

This estimate is very conservative. A significantly higher amount is conceivable since differences of opinion are to be expected between the parties involved in the consultation process.

It was calculated that each hazard will involve one-off costs in the amount of € 2 million for the investigation costs, personnel costs and material costs incurred in the course of identifying the hazard. Significant costs are to be expected particularly for public participation because the designation of priority areas is of significant interest to the property owners concerned. For example, in Bavaria some 20,000 objections were raised in connection with the designation of priority areas under the Habitats Directive and some 16,000 objections were raised in connection with the later supplementary Natura 2000 registration.

Therefore, assuming that 25 hazards will be identified, costs in the
one-off amount of € 50 million
are to be expected for the entire federal territory.

The costs that will arise for the state governments as owners of land (such as forests) could not be taken into account in this study. Costs could however arise for the state governments in this regard, such as in connection with the designation of forests that are hyperacidic or at risk of compaction as priority areas, together with the subsequently necessary action programme. Germany's state governments own some three million hectares of forest.

b. Recurrent costs

The monitoring of regional conditions will remain a permanent task for the states and will consequently give rise to further recurrent costs. To calculate these costs, the figure of 120 person months from Bavaria was used. This figure was multiplied by a factor of 5 (an area-based approach was considered to be appropriate here) for recurrent costs in the amount of € 1.08 million x 5 or
€ 5.4 million per year.

Article 8 of the draft SFD – Action Programmes to combat soil degradation processes

Under the draft Soil Framework Directive, action programmes must contain:

- Risk reduction targets
- Measures for reaching those targets
- A timetable for the implementation of those measures
- An estimate of the allocation of financial resources for their implementation
- Proof that the risk reduction targets laid down for each area were achieved within a certain time frame
- A provision stipulating that the action programmes be updated at least every five years and reviewed at least every ten years
- A provision stipulating the adjustment of the risk reduction targets or the establishment of new risk reduction targets in connection with the updating or review of the respective action programme

These action programmes may use existing national, regional and local measures and programmes. They may include statutory, administrative and contractual measures, including cross-compliance and rural development measures within the CAP.

The experience gathered in connection with the implementation of the Habitats Directive was drawn upon here as well, including for the calculation of the financial resources which are to be expended pursuant to Article 8 (1), sentence 1: Estimates issued by the state of Baden-Württemberg[61] indicate that it spent € 36 million for management plans and € 20 million for conservation measures. This breaks down to € 5.6 million a year over a plannable period of ten years. Assuming that there are four times as many areas identified under the Habitat Directive as will be identified under the draft Soil Framework Directive, a financial burden of € 1.4 million per year would have to be assumed. Since Baden-Württemberg accounts for some

[61] Cf. Landtagsdrucksache (printed document of the state legislature) 14/1043, Stellungnahme zur Umsetzung der FFH-Richtlinie in Baden-Württemberg from 14 March 2007

10% of the territory covered by Germany, it is estimated that these costs will total some
€ 14 million per year.

In addition, "technical consultants for soil protection" (analogous to technical consultants for water conservation) are to be retained at state level. The experience gathered in Bavaria was drawn upon for this estimate. In the case of Bavaria, it can be expected that 24 persons from intermediate service levels (estimated personnel cost: € 40/hour) will be needed. An area-based approach was used here as well for the extrapolation to the entire country. In other words, the sum was multiplied by a factor of 5:
24 x 1,500 hours x € 40 x 5 =
€ 7.2 million per year.

Article 10 of the draft SFD – Identification and inventory of contaminated sites

Under Article 10 of the draft Soil Framework Directive, Member States must, using a specific, defined procedure, identify the location of the sites where the potentially soil-contaminating activities indicated in the list defined in subparagraph 1 are taking place or have taken place in the past.

This obligation applies to Germany's federal states. They must each draw up a soil cadastre at state level or fill in any gaps in their existing cadastres. Not all the required information has been gathered. Measurements will therefore still need to be carried out. This is because the Federal Soil Protection Act and the Federal Soil Protection and Contaminated Sites Ordinance do not yet cover all areas where there is a significant probability of a site being a contaminated site within the meaning of the draft Soil Framework Directive. It must therefore be assumed that even areas which — based on today's standards — are deemed to be remediated must undergo at least a renewed review. A period of 25 years has been set, during which the measurement work must be finalised (Article 10 (4) of the draft Soil Framework Directive.

Information on the following points in particular is to be collected or conflated in the (later) identification of contaminated sites:

- Current use
- Prior uses
- Accidents involving the emission of relevant hazardous substances
- Contaminant pathways
- Identification procedure and measurements where necessary
- Risk assessment

Based on a valid estimate from Bavaria, 150 PM and € 1 million in material costs were calculated for the state of Bavaria. Since an area-based extrapolation was considered to be appropriate here as well, this calculation results in nationwide costs in the amount of € 2.35 million x 5 or the **one-off sum of € 11.75 million**.

Article 12 of the draft SFD – Soil status report

The Federal Government and state governments will develop a "model soil status report" in order to ensure a uniform national standard for the soil status report. Nine PM per state were estimated for this task. This equals € 81,000. An extrapolation of this figure to all of Germany's states (x 16) indicates that
one-off costs of € 1.3 million
will be incurred in connection with this article.

Article 13 of the draft SFD – Remediation

The states will probably fund the remediation measures that the local governments conduct. In this cost estimate however, the costs for these measures were assigned to the local governments. Consequently, there are no costs to the states to be estimated in connection with this article.

Article 14 of the draft SFD – Remediation strategy

The drafting of national remediation strategies must be coordinated between the Federal Government and state governments. It is estimated that this will entail 6 PM/year = € 54,000 for each state. Extrapolated to all 16 states, this would total

€ 864,000 per year.

Article 15a of the draft SFD – Public participation

These costs were taken into account with the special plans and measures under Articles 8 and 10 of the draft Soil Framework Directive.

Articles 16 and 17 of the draft SFD – Reporting and Exchange of information

Eighteen PM/year for each state were estimated for processing the reports from local governments and for drafting reports to be submitted to the Federal Government. Six PM/year were calculated for the exchange of information. This totals € 216,000 per state. Extrapolated to the entire country, the costs for Articles 16 and 17 were therefore estimated to total **€ 3.5 million per year.**

Summary

In summary, the costs arising for Germany's state governments were calculated as follows:

- annual costs in the amount of € 32.5 million and
- one-off costs in the amount of € 64 million.

The following table shows a break-down of these costs by individual article of the draft Soil Framework Directive:

Article of the draft SFD	Annual costs to all state governments together	One-off costs to all state governments together
Art. 3	€ 1,700,000	
Art. 4		€ 864,000
Art. 6	€ 5,400,000	€ 50,108,000
Art. 8	€ 21,200,000	
Art. 10		€ 11,750,000
Art. 12		€ 1,296,000
Art. 14	€ 864,000	
Art. 15		
Art. 16 + 17	€ 3,345,000	
Total:	**Annually: € 32,509,000**	**One-off: € 64,018,000**

3. Costs to Germany's local governments

(a) Premises used in connection with the extrapolations

The analysis here was based on interviews conducted with affected parties in cities, districts and states. The extrapolation was calculated on the basis of the number of cities and districts in the state of North Rhine-Westphalia and used the following premises:

1. The state of North Rhine-Westphalia has 53 districts and *kreisfreie Städte* (towns constituting a district in their own right).
2. Germany has a total of 439 districts and *kreisfreie Städte*. The costs to a district or *kreisfreie Stadt* were therefore multiplied by 400 to arrive at the figure for the entire country.
3. Germany has a total of 12,629 municipalities, 1,573 of which have more than 10,000 residents. Many of the remaining municipalities are organised as *Verwaltungsgemeinschaften* (a collection of small communities that comprise local administrative units) or in similar structures which discharge tasks for several municipalities. Regarding the discharge of tasks that are assigned municipalities as local governments/administrative units, it was assumed for the purposes of this study that Germany has 3,000 local governments/administrative units.
4. The states North Rhine-Westphalia and Baden-Württemberg each account for approximately 10% of the territory covered by Germany; Bavaria accounts for some 20%. Therefore, surface area-based figures that were available for all local governments in North Rhine-Westphalia or Baden-Württemberg were multiplied by the factor 10; figures from Bavaria were multiplied by the factor 5.

(b) Cost estimates by article:

Article 3 of the draft SFD – Integration

Article 3 of the draft Soil Framework Directive stipulates that in the development of policies which can significantly exacerbate or reduce soil

degradation processes, Member States must examine the impact these policies will have on said processes.

The aspects

- erosion by water,
- erosion by wind,
- organic matter decline,
- compaction,
- salinisation,
- risk of mudslides, and
- acidification

must be taken into account in future, particularly in areas such as

- plan development procedures – area development plans and sector planning,
- energy plans,
- agriculture,
- concepts for rural development,
- forestry plans,
- raw material extraction,
- trade and industry,
- product policy,
- tourism development,
- climate and
- environment, nature and landscape.

For each of these aspects, it will be necessary to carry out

- investigations,
- assessments and
- decisions that strike a balance between conflicting objectives/interests.

The soil impact assessment called for by Article 3 of the draft Soil Framework Directive will in all probability lead to an amendment of the Environment Impact Assessment Act (EIA Act). This amendment would explicitly incorporate the above-listed aspects into Annex 2 of the EIA Act. The investigation obligations that are part of the area development planning activities which are incumbent upon the local governments will be extended insofar as these obligations do not yet at this time include all the aspects set forth in Article 2 (10) of the draft Soil Framework Directive. It is estimated that this will entail an additional 100 hours of work each year.

Moreover, the aspects cited in Article 2 (10) of the draft Soil Framework Directive will also have to be taken into account in future in municipal plans and policies such as waste management concepts, sewage disposal plans, energy supply policies, climate plans, noise reduction plans, retail concepts, particulate matter concepts and tourism plans. It is estimated that this will entail an additional 50 hours of work each year.

Germany has a total of 12,629 municipalities, 1,573 of which have more than 10,000 residents. Many of the other municipalities are organised as *Verwaltungsgemeinschaften* (collections of small communities that comprise local administrative units) or in similar structures which discharge tasks for several municipalities. Regarding the discharge of tasks in the areas set forth in Article 3 of the draft Soil Directive Framework, it was assumed for the purposes of this study that Germany has 3,000 local governments/ administrative units. It was therefore estimated that these activities will entail 150 hours x 3,000 = 450,000 hours for the entire country, or costs in the amount of
€ 27.0 million per year.

Article 4 of the draft SFD – Precautionary and preventive measures

Article 4 of the draft Soil Framework Directive obligates Member States to prevent or minimise measures which significantly hamper soil functions, to limit the introduction of hazardous substances and thus avoid an accumulation of those hazardous substances, and to prevent the introduction of relevant hazardous substances.

It is assumed here that the provisions already set forth in Germany's waste management and waste water legislation, imission control law, agricultural law and the existing programmes which can be drawn upon pursuant to sentence 1 of Article 4 of the draft Soil Framework Directive will meet the need for regulation set forth in Article 4 of the draft Soil Framework Directive. It cannot however be ruled out that further measures may be needed. One example here would be measures pertaining to the introduction or accumulation of hazardous substances following regular floods which are to be categorised as natural phenomena that can be averted or influenced. The

costs of such measures could not however be estimated within the scope of this expert opinion.

Article 5 of the draft SFD – Sealing

Sealing is taken into account at local level in connection with the development of area development plans in accordance with the provisions set forth in the Federal Building Code and the Federal Nature Conservation Act. The so-called impact-mitigation rule calls for and ensures implementation of compensatory measures for sealing that cannot be avoided. Therefore, for the purpose of this expert opinion, the requirements of the draft Soil Framework Directive are considered to be met. It is unlikely that any further costs will have to be estimated for the local level.

Article 6 of the draft SFD – Identification of priority areas requiring special protection from soil degradation processes

In connection with the identification of priority areas, it was assumed here too that this procedure will follow the procedure used in the implementation of the Habitats Directive. Based on this, the identification of priority areas will be carried out at state level. As a result, there will initially be no costs to local governments. It is the subsequent processes described in Article 8 of the draft Soil Framework Directive that will have an impact on local governments. See Article 8 below for more on this.

The costs that will arise for local governments as the owners of land (such as forests) could not be taken into account in this study. Costs could however arise for local governments in this regard, for example in connection with the designation of forests that are hyperacidic or at risk of compaction as priority areas, together with the subsequently necessary action programme. Germany's local governments own some two million hectares of forest.

Article 8 of the draft SFD – Action Programmes to combat soil degradation processes

Article 8 of the draft Soil Framework Directive provides that an action programme must be drawn up, at the administrative level and geographical scale that the respective Member State considers appropriate, for the priority areas and the degradation processes.

a. Processing of spatial information

These provisions require that Germany's districts and *kreisfreie Städte* (towns that constitute a district in their own right) draw up soil (protection) maps or complete their existing soil (protection) maps.
At the level of districts and *kreisfreie Städte*, the one-off personnel burden for the processing of spatial information was estimated at 600 hours (x 400 = 240,000 hours) or the
one-off sum of € 14.4 million.

It was estimated that maintaining the database will require 1,800 hours (x 400 = 720,000 hours) or the amount of
€ 43.2 million per year.

b. Drawing up action plans

Under the draft Soil Framework Directive, action programmes in the priority areas must contain:

- Risk reduction targets
- Measures for reaching those targets
- A timetable for the implementation of those measures
- An estimate of the allocation of financial resources for their implementation
- Proof that the risk reduction targets laid down for each area were achieved within a certain time frame
- A provision stipulating that the action programmes be updated at least every five years and reviewed at least every ten years

- A provision stipulating the adjustment of the risk reduction targets or the establishment of new risk reduction targets in connection with the updating or review of the respective action programme

These action programmes may use existing national, regional and local measures and programmes. They may include statutory, administrative or contractual measures, including cross-compliance and rural development measures within the CAP.

This obligation is comparable to obligations arising for the Member States from the Habitats Directive (Directive on the conservation of natural habitats and of wild fauna and flora). This latter directive also obligates Member States to take necessary conservation measures for special protection areas (priority areas). These European regulations were implemented at local level in the state of North Rhine-Westphalia by adjusting existing land-use plans. It would seem reasonable to use a similar approach when implementing the draft Soil Framework Directive at local level. The changes in the land-use plans will lead to additional investigation costs (investigation and personnel costs) as well as the need for a formal plan development procedure that includes public participation. Based on the known costs incurred to local governments in connection with amending the land-use plans in North Rhine-Westphalia, it was estimated that the one-off costs for each *kreisfreie Stadt* (town that constitutes a district in its own right) or district will amount to € 520,000 or the
one-off total of € 208 million.

Maintaining and monitoring the above-mentioned plans in connection with the provisions set forth in the draft Soil Framework Directive will entail annual personnel costs of 450 hours per *kreisfreie Stadt* or district (x 400 = 180,000 hours) or
€ 10.8 million per year.

Article 10 of the draft SFD – Identification and inventory of contaminated sites

Under Article 10 of the draft Soil Framework Directive, Member States must, using a specific, defined procedure, identify the location of the sites where the potentially soil-contaminating activities indicated in the list defined in subparagraph 1 are taking place or have taken place in the past.

By virtue of this obligation, local governments will be called on to consolidate their cadastres of contaminated sites and other registers in order to establish a state-level cadastre or fill in any gaps in any existing state-level cadastre. Not all the required information has been gathered. Measurements will therefore still need to be conducted. This is because the Federal Soil Protection Act and the Federal Soil Protection and Contaminated Sites Ordinance do not yet cover all areas where there is a significant probability of a site being contaminated within the meaning of the draft Soil Framework Directive. It must therefore be assumed that even areas which, based on today's standards, are deemed to be remediated, must undergo at least a renewed review. A period of 25 years has been set, during which the work of measuring concentration levels must be finalised (Article 10 (4) of the draft Soil Framework Directive).

It was calculated that setting up and maintaining the inventory will, at the *kreisfreie Stadt* (town that constitutes a district in its own right) or district level, require an annual total of 1,800 hours (x 400 = 720,000 hours) = **€ 43.2 million per year**.

Conducting measurements will entail personnel costs of 2,700 hours (x 400 = 1.08 million hours) = or **€ 64.8 million per year**.

The material costs per *kreisfreie Stadt* or district were estimated to total € 1 million — or € 40,000 per year and therefore a total of **€ 16 million per year**.

Article 12 of the draft SFD – Soil status report

A soil status report is to be issued when a site is sold or when there are land use changes. Therefore the task of maintaining a soil status register will probably be assigned to the *kreisfreie Städte* (towns that constitute a district in their own right) or districts because they keep relevant cadastral registers and are aware of changes undertaken in land use.

The bodies that maintain the registers may use the information contained in soil status reports to identify contaminated sites in accordance with Article 10 of the draft Soil Framework Directive. See Article 12 (4) of the draft SFD.

The body that maintains the register will, similarly to cases involving the exercise of the local government's right of first refusal, issue the soil status reports as well as negative clearances which confirm that the particular sites are not listed in the register of sites set forth in Article 10 of the draft Soil Framework Directive.

It is estimated that setting up and maintaining the register and performing the function of an information point will require 920 personnel hours/year (x 400 = 368,000 hours) and will thus cost
€ 22 million per year.

Article 13 of the draft SFD – Remediation

Article 13 of the draft Soil Framework Directive governs the obligation to remediate contaminated sites which are listed in the inventories that are to be drawn up pursuant to Article 10 (4) of the draft Soil Framework Directive.

Cities and municipalities will bear a portion of the remediation costs because they are in many cases the legal successor of former municipal utilities and thus responsible for the remediation of contaminated sites.

In addition, costs will arise for the remediation of private property because in many cases it will not be possible to pass on remediation costs to private landowners. According to case law, a private landowner is liable up to a

maximum of the market value of the remediated land.[62] In many cases, the remediation costs exceed the market value.

a. New remediation costs

It can be assumed that not all sites (contaminated sites and land that is suspected of being contaminated) which already fall under the Federal Soil Protection Act have been identified. Consequently, the number of sites requiring remediation will grow.

Experts have predicted that some 8,000 new sites will be identified in the state of Bavaria. A *kreisfreie Stadt* in North Rhine-Westphalia and a rural district said there would be some 100 additional sites that would have to be remediated. It was therefore assumed that an additional 40,000 contaminated sites requiring remediation will be identified in Germany. It was further assumed that remediation will cost € 50,000 per site. Thus, costs in the amount of some € 2 billion are to be expected for the entire country.

Local governments will bear some 50% of these remediation costs for the aforementioned reason, with the result that local governments will have to spend € 1 billion on remediation measures in the coming years.

Since the remediation of identified sites is to be completed within a period of 25 years, the costs arising for Germany's local governments will probably be
(€ 1 billion ÷ 25 years)
€ 40 million per year.

In addition, there will be personnel costs for monitoring the remediation measures undertaken by private parties. These costs were estimated at 150 hours/district regulatory agency (x 400 = 60,000 hours) or a total of
€ 3.6 million per year.

[62] Cf. the decision of the Federal Constitutional Court from 16 February 2000 – 1 BvR 315/99

b. Financial implications for existing obligations to remediate contaminated sites

The Commission is working on the assumption that the inventory of contaminated sites will be completed within nine years after the Directive's entry into force. As a result, the timetable for processing all the remediation cases and the amount of the financial resources to be spent on remediation must also be determined by this time at the latest. This means that the date by which Article 13 of the draft Soil Framework Directive must be fully implemented must also be stipulated by that time.

The obligation to remediate contaminated sites set forth in Article 13 of the draft Soil Framework Directive also exists in principle under the Federal Soil Protection Act. However, under the Federal Soil Protection Act, this obligation is decided at the respective authority's discretion. Pursuant to Article 14 however a timetable for implementation is to be drawn up. As a result this obligation will no longer be an "open-ended" but rather a limited obligation.

This situation can be described in financial terms. These financial effects were computed by calculating the so-called present value discount.

aa. Present value discount

The present value approach assumes that series of payments consisting of cash inflows and cash outflows which differ in terms of their duration, amount and frequency can be compared with one another only when the time factor is taken into account. The reason for this is that a payment made at an earlier point in time constitutes a greater burden than a payment made at a later time. The importance of calculating the present value in predictions on the financial implications of laws was already noted in studies conducted back in the 1980s on the costs resulting from legislation.[63] This practice however never became established in the regulatory impact assessments conducted in Germany. It seems very likely that this and other omissions in the calculation of the financial implications of proposed laws are a fundamental factor behind Germany's national debt.

[63] Hugger, Gesetze - Ihre Vorbereitung, Abfassung und Prüfung, Baden-Baden, 1983, p. 260 f.

The present value approach establishes value-based comparability by discounting all future payments to the current point in time. The payment which has been discounted to this particular date is called present value. In this case, an interest rate of 4% was used for the discounting process. This is the rate that is normally used in legal contexts.

bb. Premises used in connection with calculating the present value discount

Assuming on the basis of a generous estimate ─ following, for instance, an Austrian estimate ─ that the Commission would be satisfied with a 30-year time frame (see the premise to Article 14) for the remediation of contaminated sites for the purposes of Article 13 of the draft Soil Framework Directive, this would mean for Germany as well that all necessary remedial measures would have to be completed within 30 years of the date of entry into force of the Directive (this would be a relaxation of the premise set forth in aa. ─ a 25-year time frame for implementation).

Based solely on German law, it would be highly unlikely in view of the aforementioned constitutional rules governing public finances in the Federal Republic of Germany that it would be possible to finish the remediation of contaminated sites within the next 30 years. It must be pointed out in this connection that in its Special Report "Contaminated Sites II" released on 2 February 1995 (Bundestagsdrucksache ─ printed document of the German Bundestag 13/380, p. 84 f.) the German Advisory Council on the Environment assumed a financial burden of DM 184 billion to DM 925 billion (in other words: approximately € 90 billion to € 460 billion).

These figures have not been adjusted in the intervening time because reliable, more recent statistics have not become available in the meantime ─ from any source. Consequently, they continue to provide the basis for assumptions.

Furthermore, the Federal Government's Second Soil Protection Report from the year 2009 (Bundestagsdrucksache ─ printed document of the German Bundestag 14/9566) estimated that the current expenditure by public authorities totals some € 500 million a year. Assuming that public authorities have actually spent this sum every year since 1995, they would have

spent only some € 7.5 billion on remediation to date — and that in times where cost-consciousness was not yet as pronounced as it is today.

Even assuming the least-likely but most cost-effective scenario that only € 90 billion of the costs estimated by the German Advisory Council on the Environment would arise and additionally assuming the unlikely but cost-effective scenario that Germany's public sector would have to bear only one-third of this amount (€ 30 billion) despite the previously-mentioned limitation that the constitution places on holding the *Zustandsstörer* ("disturber through situation, ownership or possession") liable, there would still be a financial requirement of more than € 22.5 billion. Under these circumstances, still assuming that Germany's public authorities could continue to provide € 500 million a year — which is also rather unlikely — it would take 45 years before the remediation of all sites would be finished.

However, it is much more likely that the actual remediation requirements are in fact even greater than those estimated by the Germany Advisory Council on the Environment in 1995 because suspected sites have been added in the meantime. It is also much more likely that the funding requirements will lie somewhere in mid-field, in other words around € 250 billion. Therefore, assuming that the pace of remediation work and the level of financial commitment remain the same (€ 250 billion x 1/3 = € 83.3 billion, less the already invested amount of € 7.5 billion = € 75.7 billion; in other words, in 152 years), it would take until the year 2162 to complete the remediation of all sites.

Under these circumstances, it was also necessary to carry out a comparative cost calculation that shows the present value discount to public authorities that arises from the fact that the pace of remediation would have to be stepped up by virtue of Community law due to the provisions of Article 13 of the draft Soil Framework Directive and the timetable foreseen therein and the fact that it will not be possible to take into account the current financial circumstances of Germany's public authorities.

The following formula was used to calculate the present value:

$$PV = \sum_{t=0}^{n} P(t) \frac{1}{(1+r)^t}$$

PV = Present value, P(t) = Payment at the time t, t = Period, r = Interest rate,
n = Final point in time

Here, P(t) stands for payments that are made annually (in other words, in the year "t") for the remediation of contaminated sites, in other words, originally € 500 million per year until the remediation is completed. The figures in the following calculations were arrived at by dividing the assumed remediation costs for public authorities by the number of years which, according to the particular schedule, are now available for remediation measures.

Each of these payments is discounted by the multiplier 1/(1 plus r) to the power of t at the current point in time. This method is used to determine the value that a future payment would have today.
The sum of all the years which will be needed for remediating contaminated sites is then calculated.

The present value discount is calculated from the difference between the series of payments under consideration. In other words, the difference between the original payment plan with € 500 million per year and the shortened payment plans under the Soil Protection Directive.

Even when — as in this case — the total sum to be spent remains the same, the present value discount arising from the interest discount resulting from disbursing funds earlier is enormous as the following calculation shows.

cc. Calculation of the present value discount

Assuming that

- remediation costs total € 90 billion,
- Germany's public authorities bear one-third of this amount, in other words: € 30 billion,
- and have already invested € 7.5 billion, with the result that only € 22.5 billion will have to be spent in the next 30 years,

the present value discount would be some
€ 2.6 billion.

Assuming that

- remediation costs come to a total of € 250 billion,
- Germany's public authorities must bear one-third of this amount, in other words € 83.3 billion, and that
- the remaining remediation costs (taking into account the € 7.5 billion which have already been invested) will total € 75.8 billion over the next 30 years,

it is estimated that the present value discount would be some
€ 31 billion.

Article 14 of the draft SFD – Remediation strategy

Under Article 14, Member States are required to make public and review their remediation strategies. In order to fulfil this obligation, the Federal Republic of Germany will, via its states, require reports from local governments as well. Data from a previous study conducted by the Fachhochschule des Mittelstands (FHM)[64] could be used for developing the cost estimates. It was assumed that this will entail personnel costs of 50 hours per *kreisfreie Stadt*/district. Consequently, it was estimated that these costs will total
€ 1.2 million per year.

Article 15a of the draft SFD — Public participation

The costs for public participation were already estimated with the costs for Article 10.

Articles 16 and 17 of the draft SFD – Reporting and Exchange of information

Based on reporting obligations arising in connection with existing laws, it was assumed here as well that these articles will entail personnel costs of some

[64] For more information: Dietsche/Glied/Kluge/Ley, Kommunen als Bürokratieopfer – Abschlussbericht zur ersten Studie zur Übertragung des Standardkosten-Modells auf die öffentliche Verwaltung, in: Klippstein/ Röttgen, Bielefeld 2009

50 hours for each *kreisfreie Stadt*/district. Consequently, it was estimated that these costs will total
€ 1.2 million per year.

Summary

In summary, the costs arising for Germany's local governments were calculated as follows:

- annual costs in the amount of € 273 million and
- one-off costs in the amount of € 222.4 million.

The following table shows a break-down of these costs by individual article of the Soil Framework Directive:

Article of the draft SFD	Annual costs to local governments	One-off costs to local governments	Present value discount € 22.5 billion in remediation costs	Present value discount € 75.8 billion in remediation costs
Art. 3	€ 27,000,000			
Art. 8	€ 54,000,000	€ 222,400,000		
Art. 10	€ 124,000,000			
Art. 12	€ 22,000,000			
Art. 13	€ 43,600,000			
Art. 14	€ 1,200,000			
Art. 15, 16 + 17	€ 1,200,000			
Total:	**€ 273,000,000**	**€ 222,400,000**	**€ 2.6 billion**	**€ 31 billion**

4. Agricultural authorities

In Germany, some of the functions of the lower agricultural authorities are carried out by local governments (Baden-Württemberg, Bavaria) and some are carried out at state level. For this reason, the costs that will arise for lower agricultural authorities were not simply assigned to one of these two levels but were calculated separately instead.

The agricultural sector will be significantly affected by the Soil Framework Directive. As a result, there will be an increased need for

advisory services which the lower agricultural authorities will have to meet.

The Directive will additionally lead to an increased inspection burden, particularly in connection with the additional reviews of the cross compliance requirements (example: soil management based on an erosion cadastre). It must be assumed that a surveyor will also have to be included in the inspection activities because the exact cadastral parcels will possibly have to be examined.

It is estimated that this work will entail additional personnel costs of some 1,800 hours per lower agricultural authority / advisory and inspection body. Assuming there are some 100 such bodies in Germany, it is estimated that the costs arising in connection with Article 8 of the Draft Soil Framework Directive will be **€ 10.8 million per year**.

XI. Summary of the findings

Summary cost estimate* for each article of the draft Soil Framework Directive
- broken down by level of government and by
- annual and one-off costs:

1. Annual costs

Article of the draft SFD	Federal Government	State governments	Local governments	Agricultural authorities	Total
Art. 3		€ 1,700,000	€ 27,000,000		€ 28,700,000
Art. 4					
Art. 6		€ 5,400,000			€ 5,400,000
Art. 8		€ 21,200,000	€ 54,000,000	€ 10,800,000	€ 86,000,000
Art. 10			€124,000,000		€ 124,000,000
Art. 12			€ 22,000,000		€ 22,000,000
Art. 13			€ 43,600,000		€ 43,600,000
Art. 14	€ 864,000	€ 864,000	€ 1,200,000		€ 2,928,000
Art. 15 - 17	€ 54,000	€ 3,345,000	€ 1,200,000		€ 4,599,000
Total:	**€ 918,000**	**€ 32,509,000**	**€ 273,000,000**	**€ 10,800,000**	**€ 317,227,000**

2. One-off costs

Article of the draft SFD	Federal Government	State governments	Local governments	Total	Present value discount
Art. 3					
Art. 4	€ 864,000	€ 864,000		€ 1,728,000	
Art. 6	€ 108,000	€ 50,108,000		€ 50,216,000	
Art. 8			€ 222,400,000	€222,400,000	
Art. 10		€ 11,750,000		€ 11,750,000	
Art. 12	€ 1,300,000	€ 1,296,000		€ 2,596,000	
Art. 13					
Art. 14					
Art. 15 - 17					
Total	**€ 2,272,000**	**€ 64,018,000**	**€ 222,400,000**	**€ 288,690,000**	**Between € 2.6 billion and € 31 billion**

* This figure does not include the costs for the remediation of federally-owned land, in particular the costs for the remediation of federally-owned land which was previously used for military purposes.