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Nature Conservation in the GDR—an Overview

Stages in the Development of Nature Conservation in the GDR

This paper traces the development of nature conservation in the German Democratic Republic (GDR). It divides the period of East German statehood into five stages and describes the defining developments within those stages. This division into stages (in the sense of periodization, see Pot 1999, pp. 51–71) is an approach "that is used to understand and structure the flow of history" (Wiese 1933, p. 137), and is intended to make it easier to explore the history of nature conservation in the GDR.

The years selected as demarcations for the stages are those in which influential laws or regulations were enacted. Normative underpinnings such as these (laws and regulations with principles, objectives, requirements, and prohibitions) provide a more or less tangible picture of nature conservation in a given stage, because conservation law strives to codify the principles, objectives, and practices of nature conservation for the time in which the law is in effect. Continuities and changes in conservation law always informed the actions of those engaged in nature conservation and reflected the prevailing ideas and sociopolitical conditions of the respective stages. There are no established concepts for stages or periods that neatly express the entire culture of a time. It was therefore necessary to focus on a single perspective, which is the approach taken here (Pot 1999, p. 67).

The enactment of a law should not be understood as a distinct break or clear demarcation of a stage. Between the stages there was always a transition that sometimes lasted several years. The historical development of nature conservation in the GDR can be divided into the following stages:

1945 to 1954—Nature conservation under the mandate of the Reich Nature Protection Act (Reichsnaturschutzgesetz, RNG) of 1935, which remained in effect until the Act for the Preservation and Care of Nature in the Homeland – Nature Protection Act (Gesetz zur Erhaltung und Pflege der heimatlichen Natur – Naturschutzgesetz) of the GDR was enacted in 1954,

1954 to 1970—Nature conservation under the mandate of the Nature Protection Act of the GDR until the enactment of the Environment Act (Gesetz über die planmäßige Gestaltung der sozialistischen Landeskultur – Landeskulturgesetz, LKG) in 1970,

1970 to 1982—Nature conservation under the mandate of the Environment Act until the issuance in 1982 of the Directive Regarding the Collection, Processing and Safeguarding of Information about the Condition of the Natural Environment of the GDR (Anordnung zur Gewinnung oder Bearbeitung und zum Schutz von Informationen über den Zustand der natürlichen Umwelt in der DDR),

1982 to 1989—Nature conservation from the issuance of the Directive Regarding the Collection, Processing and Safeguarding of Information about the Condition of the Natural Environment of the GDR until the fall of the Berlin Wall,

1989 to 1990—Nature conservation from the fall of the Berlin Wall until German environmental unification on July 1, 1990, and unification of the two German states on October 3, 1990.

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Nature Conservation from 1945 to 1954

Continuity and Change under the Continued Mandate of the Reich Nature Protection Act

Prewar nature conservation laws and regulations remained in effect in the Soviet occupation zone following the end of the Second World War on May 8, 1945. These laws and regulations consisted of the Reich Nature Protection Act (Reichsnaturschutzgesetz, RNG) of 1935; regulations implementing the Act that were promulgated on October 31, 1935; and the Nature Protection Regulation (Naturschutzverordnung) of March 18, 1936, concerning the protection of wild plants and wild, non-game animals. The Reich Nature Protection Act was not considered to be politically compromised. It remained in effect as a law of the states (Länder) after the founding of the GDR on October 7, 1949, and, following the administrative reform of 1952, remained formally in effect until 1954. In reality, however, the Act, signed by "Führer and Reich Chancellor" Adolf Hitler and "Reich Forestry Chief" Hermann Göring, was rarely enforced.

The Reich Nature Protection Act regulated nature conservation in areas "free" of human settlement. It addressed "general landscape protection" and extended protection to natural monuments,¹ nature protection areas (Naturschutzgebiete, NSG), including the newly designated Reich nature protection areas (Reichsnaturschutzgebiete), "other landscape areas in free nature," and endangered species (Reich Nature Protection Act, Sections 5, 19, and 20). Objects and areas were judged to be worthy of protection on the basis of rarity, beauty, decorative value, distinctiveness, and scientific, ethnological, or historical significance (Reich Nature Protection Act, Sections 1–5). Most of the nature reserves selected in accordance with the principles of the Act were considered to hold fairly little economic promise, and at the same time to be close to nature, representative of a certain native environment or habitat, unique, rare, or beautiful. Many of the "landscape areas" (Landschaftsteile) protected under the Act were later designated as landscape protection areas (Landschaftsschutzgebiete, LSG). The new concept of Reich nature protection areas owed much to the old idea of state parks. These areas were misused as hunting grounds, however (Frohn 2006), a prime example of this being the Reich nature protection area of Schorfheide.

Traditionally, the work of nature conservation had been done by unpaid, volunteer nature protection officers (Naturschutzbeauftragte) holding honorary positions in municipal, county, and state administrations. The Reich Nature Protection Act aimed to change this and stipulated that there should be a hierarchical system of public authorities staffed with government employees responsible for nature conservation. By May 1945, however, there was still no such system in place. In essence, nature conservation continued to be practiced on a largely volunteer basis, as it had been prior to 1935. As the Prussian model of administration was adopted throughout Germany and its occupied territories, however, nature protection offices (staffed by volunteers) were created at all administrative levels. The Reich Office of Nature Protection (Reichsstelle für Naturschutz) was the central administrative body, and functioned as a scientific institution with advisory authority.

This system of organizing nature conservation was not retained in the Soviet occupation zone. There was no central government agency for nature conservation at the occupation zone level. The five states in the zone did not take a unified approach to regulating authority for nature conservation, which was sometimes handled by the forestry division of the Ministry of Agriculture and Forestry and sometimes by the Ministry of People's Education. Unpaid, volunteer nature protection officers gradually took up their positions again in many of the municipal, county and state administrations. Nature protection offices no longer existed, however, despite the fact that the Reich Nature Protection Act was still in effect and called for these offices to be staffed with an average of eight to ten unpaid expert advisors.

After the founding of the GDR in 1949, a number of new conservation regulations were promulgated, including several concerning the protection of bees in 1951.

¹ The German term "Naturdenkmal", meaning "natural monument," refers to an individual feature of a landscape, such as a tree, waterfall, or rock formation. Later, the term "Flächennaturdenkmal", or "large natural monument" was created to refer to comparatively small protected areas.—Trans.

The administrative reform of 1952 resulted in the dissolution of the five states and their respective administrations (including nature protection offices), and the introduction of fifteen administrative districts called "Bezirke". This reform was mandated by the Act Concerning the Further Democratization of the Structure and Functioning of State Organs in the States in the GDR (Gesetz über die weitere Demokratisierung des Aufbaus und der Arbeitsweise der staatlichen Organe in den Ländern der DDR), enacted on July 23, 1952. The number of counties (Kreise, smaller administrative districts, subordinate to the districts) increased substantially, with the result that individual counties represented smaller administrative areas. Throughout 1951, nature conservation records were divided up and distributed among the new administrative units.

One of the results of the reform was considerable uncertainty regarding questions of authority over nature conservation. A directive of the Ministry of Agriculture and Forestry (Ministerium für Land- und Forstwirtschaft) "regarding the performance of conservation work," was issued to all district councils (Räte der Bezirke) on September 27, 1952, with the goal of providing clarity on this issue. The directive reaffirmed that the Nature Protection Regulation of March 18, 1936, remained in effect (,,until the enactment of a law that regulates specific details") and it clarified questions of authority over nature conservation. The Ministry of Agriculture and Forestry was given supreme authority over nature conservation. Responsibility for these matters at an intermediate administrative level was assigned to the forestry authorities of the district councils, and at the lowest level to the agriculture and forestry departments of the county councils (Räte der Kreise). The directive also named the German Academy of Agricultural Sciences (Deutsche Akademie der Landwirtschaftswissenschaften, DAL), founded in Berlin on October 17, 1951, as an advisory institution.

The districts and counties were instructed to "appoint within the district and county nature protection officers, who shall support and provide expert advice to the nature conservation authorities in cooperation with the democratic parties and mass organizations, in particular the Cultural Alliance for the Democratic Renewal of Germany (Kulturbund zur demokratischen Erneuerung Deutschlands). The officers selected are to be progressive in outlook and possess knowledge of the country's geography, history, and natural history."²

The Decree on the Preservation and Care of National Cultural Monuments (Verordnung zur Erhaltung und Pflege der nationalen Kulturdenkmale), issued on June 26, 1952, resolved any ambiguity regarding responsibility over the preservation of natural monuments, removing it from the State Commission on Art and subordinate institutions under the Ministry of People's Education. However, this move was followed in 1953 by the creation of a department for "Landeskultur"³ within the Central Office for Water Management. The department was to take on responsibility for issues of nature conservation and landscape management that arose in connection with land improvement measures.

On November 12, 1952, another directive was issued by the Ministry of Agriculture and Forestry ,,regarding the performance of conservation work." It contained a list of animal and plant species that were placed under protection.⁴

Yet another directive of the Ministry of Agriculture and Forestry "regarding the performance of conservation work," was issued on January 28, 1953. It tasked the districts with appointing new unpaid, volunteer nature protection officers at both county and district levels. Accordingly, the district submitted lists of names to the Ministry of Agriculture and Forestry.⁵

In many cases, considerable time passed before details of government and administrative changes reached the organizations affected (local administrations, nature conservation organizations, factories, etc.). The administrative reform of

² BArch DK 1/3759 (Akte Schutz seltener Vogelarten), p. 25.

³ See footnotes 16 and 18.

⁴ BArch DK 1/3759 (Akte Schutz seltener Vogelarten), p. 27–30.

⁵ See BArch DK 1/10290 (*Tätigkeit der Abt. Landeskultur und Naturschutz, Band 1*), pp. 261–294, containing a list of the then approximately 200 nature protection officers in districts and counties.

1952, and later the drafting of the Nature Protection Act of the GDR, entailed new challenges involving personnel and organization that could not be met satisfactorily.

The founding of the GDR in 1949 also spelled changes for the way in which private clubs or societies (Vereine) were organized. Private clubs or societies had played a key role in nature conservation and homeland protection (Heimatschutz) until the end of the war. The Decree on the Integration of People's Art Groups and Cultural or Educational Societies into Existing Democratic Mass Organizations (Verordnung zur Überführung von Volkskunstgruppen und volksbildenden Vereinen in die bestehenden demokratischen Massenorganisationen), enacted on January 12, 1949, abolished the legal framework of the private clubs or societies. Existing homeland protection and nature conservation groups were incorporated into the Cultural Alliance (Kulturbund). The next few years saw the gradual establishment of a hierarchically structured, partially state-run and state-controlled section of the Cultural Alliance called Friends of Nature and the Homeland (Natur- und Heimatfreunde). From April 1952 to 1961, the Friends published a monthly periodical titled "Nature and the Homeland" (Natur und Heimat). It had a circulation of 54,000 and was the only nature conservation magazine in the GDR that was available for purchase by the public.

As a rule, the nature protection officers in the redrawn counties began their work by documenting the protected areas of their district, including registered natural monuments or other landscape areas that were placed under protection prior to 1945. Despite the fact that Section 20 of the Reich Nature Protection Act required the involvement of conservation authorities in the planning or implementation of measures initiated by other administrative divisions, this was rarely done and usually happened only when objects or areas already under protection were affected. In the early postwar nature protection officers years, spent considerable time and effort on a variety of local public outreach initiatives.

Nature conservation was not widely embraced by the public at this time. Their energies were devoted primarily to dealing with the aftermath of the Second World War, specifically with rebuilding cities, villages, and infrastructure; accommodating approximately 4.3 million refugees, displaced persons, and emigrants from Germany's former territories in the East; solving food shortages; rebuilding administrative structures and coping with attendant personnel problems. It was also at this time that the system of property ownership changed, in terms of both law and organization (the land reform of 1945, and waves of socialization in trade and industry).

No attempt was made to reappraise the nature and landscape conservation policies pursued under the Nazis. In the Soviet sector, as in the British, French, and American zones, there were continuities both in the personnel who administered policy and in certain ideas or philosophies that informed that policy. Numerous nature protection officers had been members of the Nazi party until the end of the war and were allowed-as a rule after a "probation period" of several years-to return to their honorary positions. Almost all the officers had been followers of the Nazis. Those whose involvement went beyond mere party membership had already left the Soviet occupation zone for other occupation zones (Behrens 2010 a).

In terms of philosophy, Alwin Seifert's influential idea of the German countryside as a "landscape of fields and hedgerows" continued to hold sway. This owed much to the denuding of fields and meadows after the Second World War, however, and was primarily a political response to post-war food shortages. These various factors led the authors of the 1949 Constitution of the GDR to name (in Article 26) landscape conservation and management as a precondition for stable yields in agriculture. Thus conservation practices were directly connected with agriculture for the first time (see below).

"Landscape Diagnosis" and Landscape Planning

The "landscape diagnosis" project was a research effort headed by landscape architect Reinhold Lingner, head of the Landscape Department at the Institute for Civil Engineering, Berlin Academy of Sciences, and his colleague Frank Erich Carl. Both men had been carrying out preliminary studies of land degradation in the Soviet occupation zone since the autumn of 1948. The "diagnosis" was conducted for the most part in 1950 and, after a period of inactivity, was brought to an end in 1952. Although not directly related to nature conservation, it later served as a model for approaches to research and planning in other fields, including nature conservation (Hiller 2002, p. 277). The project was part of an attempt to carry out largescale landscape analysis and planning under the new sociopolitical conditions in the GDR, in particular centralized state planning and de facto state control of the land. It was also intended to create jobs for unemployed or underemployed landscape gardeners and landscape architects; at the time, it was the "only job in the field that was done throughout the country" (Kirsten 2002, p. 274).

Over the course of the project, more than 90 map makers, divided among five groups representing the East German states still extant under the federal system, created an inventory of the most egregious cases of land degradation in the GDR:

- crop and pasture land stripped of protective trees and shrubbery to an extreme or advanced degree,
- extreme degradation of arable land due to mining,
- extreme imbalances in the water budget,
- extreme contamination from industrial particulate and gas emissions.

The original plan had called for these issues to be addressed in an initial phase of the project, to be completed by the end of August, 1950. The agenda of this first phase was driven by food shortages and natural catastrophes in the late 1940s (such as floods in the Oderbruch), a ,,bark beetle calamity" in Thuringia and Saxony, land degradation in lignite mining areas, and erosion problems in croplands in Saxony-Anhalt and Brandenburg that had been stripped of protective windbreaks (Lingner 1952). The food shortages, together with difficulties in restarting agriculture after land reform, led to the inclusion of a passage in the 1949 Constitution of the GDR (Article 26, Paragraph 3) stating that the "stability of crop yields shall be maintained and promoted by, among other things, landscape conservation and management."

The plan had also called for a second phase of the project to study forest monocultures, clearcutting, damage to selection-cut forests, peat-cutting sites (started after the end of the war in 1945 in the face of severe fuel shortages), and climate change resulting from the construction of buildings and infrastructure.

The data gathered by the project was intended to be used for subsequent large-scale landscaping measures. In the end, these hopes remained unrealized. The study was discontinued on August 14, 1950, because of concerns that it would endanger state security. It was argued that there was no guarantee that the extensive information it collected would be "used solely for the purpose of building up [a Socialist state and society]." It was due in large measure to Lingner's commitment and dedication that it was possible to complete at least the initial phase in 1952 (Hiller 2002, pp. 86 and 92).

At the same time, however, ambitious measures were being initiated to protect existing hedgerows and plant new windbreaks, and considerable thought and planning were being devoted to programs and organizations for landscape management. As early as 1949, the Ministry of Agriculture and Forestry had formed a 60-member landscaping committee tasked with protecting fields. A number of landscape architects sat on this committee, including several who, prior to 1945, had belonged to "Organisation Todt."6 On August 29, 1950, the Ministry of Agriculture and Forestry issued a directive implementing Section 30 of the February 8, 1950 Law Concerning Measures to Achieve Peacetime Levels of Crop Yields per Hectare (Gesetz über Maßnahmen zur Erreichung der Friedenshektarerträge). The directive called for the "organization and implementation of a landscaping program to protect fields and thus stabilize and improve crop yields per hectare."7 On February 12, 1951, a Central Government Committee for Landscape Management was established in the Forestry Division of the Ministry of Ag-

⁶ Organisation Todt was a civil and military engineering group responsible for a huge range of engineering projects in Nazi Germany. The landscape architects in Organisation Todt were called *Landschaftsanwälte* or "landscape advocates."

⁷ The original German title of the directive is Anweisung des Ministeriums für Land- und Forstwirtschaft zur Organisation und Durchführung einer planmäßigen feldschützenden Landschaftsgestaltung zum Zwecke der Sicherung und Steigerung der landwirtschaftlichen Hektarerträge in Ausführung des § 30 des Gesetzes über Maßnahmen zur Erreichung der Friedenshektarerträge.—Trans.

riculture and Forestry. The minutes of the Committee's founding meeting state that the second item on the agenda was the "planning and development of a five- and possibly twenty-year landscaping plan" (general landscaping plan, called a Generallandschaftsplan), which was to apply to the entire GDR. In 1951, landscape management committees were gradually established in all states and in numerous counties with the purpose of developing general frameworks for their particular areas. The plan was to establish such committees throughout the GDR. However, there was no systematic follow-up on these initial steps toward creating a general landscaping plan for the whole country.

Two regulatory measures should be mentioned with reference to the developments described above. The first is a decree issued by the Council of Ministers on October 29, 1953, which addressed erosion problems and called for the protection of hedgerows. This was followed by an initial implementing order that laid out the terms under which the decree was to be implemented. These regulations had significant consequences, as they called for a record to be made of all the small thickets, hedgerows, small woodlots, groves, and copses that were located outside town or village borders and were smaller than 10 hectares. The resulting lists were sent to the unpaid, volunteer nature protection officers responsible for the respective areas, who sent them on to the relevant branch of the Institute for Land Research and Nature Protection (Institut für Landesforschung und Naturschutz), founded in 1953.8

The last hopes for a large-scale landscaping program were raised by a resolution adopted by the Council of Ministers on February 23, 1954, calling for the National Planning Commission (Staatliche Plankommission, SPK) to create an action plan for the protection of fields via the planting of natural windbreaks. The resolution had virtually no practical consequences, however.

In 1956, landscape architect Werner Bauch described what the landscape diagnosis project had accomplished: "For the first time, we had an overview of the most striking damage to the [country's] landscape and environment. It was documented in the form of maps, texts, and photographs. The state of [the nation's] farmland was illustrated primarily by a calculation of the total area of croplands that have been stripped to an extreme or advanced degree of natural windbreaks (bushes, trees). The study also produced standardized maps that revealed water pollution and pronounced water budget imbalances. Findings of extremely high pollution levels drew attention to the considerable impacts of industry, human settlement, and traffic on air quality. As far as mining areas were concerned, research focused on mining-related changes to landscapes, in particular the state of spoil banks and large areas of barren land. In the extensive brown coal fields, reclamation and reforestation of the spoil banks and barren lands is being conducted with care and diligence. The study was able to quantify mining-related changes in soil quality through comparisons with soil values in selected areas. Of particular importance for the continuation of this work in the future is the fact that research priorities were defined."9

In the end, the landscape diagnosis project only produced a few pilot schemes, such as those in the Huy-Hakel area of the Harz foothills and in the greater Leipzig area (Heinrichsdorff 1959; Krummsdorf 1963). The project's methodological approaches and the data it collected were used in the reclamation of large mining sites in Lower Lusatia and in the tri-state area of Saxony, Thuringia, and Saxony-Anhalt. The data was also used later in support of attempts to establish a cross-border national park in the Elbe Sandstone Mountains and also in general land use plans, for example in the district of Erfurt (Wübbe 1995, 73).¹⁰

⁸ The name of the institute was later changed to Institute for Landscape Research and Nature Protection (Institut für Landschaftsforschung und Naturschutz, ILN).

⁹ BArch DH 2/21626 (Prof. Werner Bauch, TH Dresden, *Entwicklung der Landschaftsgestaltung in der DDR*, probably 1956). Concerning the use of landscape diagnosis data in the *Bezirk* of Dresden, see BArch DH 2/21627 (Landschaft und Planung, various manuscripts).

¹⁰ The more than 900 maps and record books that were created in the course of the landscape diagnosis project are now housed in the archives of the Leibniz-Institut für Raumbezogene Sozialforschung (IRS), located in Erkner.

Nature Conservation from 1954 to 1970

New Legislation and Changes in the Organization of Conservation Work

The first draft of a new conservation law to replace the Reich Nature Protection Act was completed in 1952. Two years later, the Reich Nature Protection Act was superseded in the GDR by the Act for the Preservation and Care of Nature in the Homeland - Nature Protection Act (Gesetz zur Erhaltung und Pflege der heimatlichen Natur -Naturschutzgesetz) of August 4, 1954. It exerted considerable influence on conservation work for more than one and a half decades. The Nature Protection Act of 1954 followed the Reich Nature Protection Act quite closely in its sections on nature protection areas, natural monuments, protected animals and plants, nature conservation administration, unpaid, volunteer nature protection officers, the designation of protected areas and objects, and sanctions.

Its overall aims tended to be traditional and preservationist, but it contained new passages reflecting recent developments in the objectives and practices of nature conservation, and in this respect was an improvement over the Reich Nature Protection Act. In its preamble, it emphasized the scientific aspects of nature conservation alongside ethical principles and reflected certain theoretical developments which came to play an important role in the designation of protected areas and objects.

The scope of the law was expanded to apply to both unpopulated and populated areas; in reality, however, it continued to be limited for the most part to the "free" (that is, unpopulated) countryside, and more specifically to protected areas and objects. Unlike under the Reich Nature Protection Act, protected areas were now selected on the basis of scientific and documentary criteria with a view toward creating a record of the country's natural environment in all its diversity (Weinitschke 1980). While the Reich Nature Protection Act valued areas that were "rare, distinctive and natural (or considered natural), from 1954 onward, priority was given to those that were characteristic and typical. Areas were selected according to a scientific classification of the countryside, with particular attention paid to plant geography and vegetation. Priority was also given to preserving areas for research. In the wake of these developments, a principle emerged of preserving and developing fundamentally threatened areas and objects (as expressions of biological diversity) and expanding conservation practices to include the protection of natural processes, thereby integrating the principle of natural development into nature conservation" (Reichhoff 2010).

The 1954 Nature Protection Act introduced two new categories in addition to the natural monuments, nature protection areas, and animal and plant species protected under the Reich Nature Protection Act. These were landscape protection areas and large natural monuments (Flächennaturdenkmale, FND) of up to 1 hectare. It was one of the first conservation laws to recognize large natural monuments as a protected area category. The category of Reich nature conservation area was abandoned.

Not included in the new Act was the category of national parks. From the mid-1950s to the mid-1960s, well-known public figures including Kurt and Erna Kretschmann, Reimar Gilsenbach, and Erich Hobusch fought (unsuccessfully) for legal recognition of this category and tried to get the areas of Müritz and Sächsische Schweiz designated as national parks. Another proposal had been made earlier to designate the area of Märkische Schweiz as a natural park (Naturpark).

Regulations concerning the protection of rare plants were also changed. The Reich Nature Protection Act had distinguished between three grades of protection and contained three corresponding lists: complete protection, partial protection, and protection from picking. In the case of partially protected species, only the rosettes and the parts that were below ground (for example, bulbs) were protected. In all, there were 93 protected species within the territory of the GDR, of which 35 were completely protected and 15 partially protected. Forty-three species were subject to a ban on commercial picking. "There cannot have been very many conservationists who perfectly understood these distinctions" (Militzer 1956, p. 16). This complexity was done away with in the Nature Protection Act of the GDR, which placed all protected species-now totaling 108-under complete protection.

There were also changes in the administrative organization of nature conservation. The term "Naturschutzstelle" (nature protection office) was not used in the Nature Protection Act in the context of volunteer conservation work, as it had been in the Reich Nature Protection Act. The independent expert advice which that office had provided and which had been mandated in Section 8 of the Reich Nature Protection Act and in Section 3 of the corresponding implementing order was thereby abolished. The Reich Nature Protection Act had stated that because nature protection offices were advisory bodies, they were not part of the conservation authorities.

In all other respects, the new law adopted the administrative model outlined in the Reich Nature Protection Act. Nature protection was assigned to the Ministry of Agriculture and Forestry, later called the Ministry of Agriculture, Forestry and Foodstuffs (Ministerium für Land-, Forst- und Nahrungsgüterwirtschaft), and to subordinate agencies in the districts and counties. For the first time, paid full-time positions were created in those agencies. As a rule, it tended to be a single position and the person who held it had several areas of responsibility. Nature conservation was just one of these areas and always had lower priority (compared to hunting, for example). Insufficient human resources were devoted to the administration of nature conservation and there were widespread complaints in this regard.

Ambiguities regarding authority over nature conservation were not resolved until 1956, when nature conservation was removed from the purview of the Central Office for Water Management, which had been responsible for it until that time. Georg Henkel, who was in charge of conservation at the Water Management Office, presented a dramatic picture of the Office's personnel situation at the annual meeting of the Friends of Nature and the Homeland, which took place June 1-6, 1956, in Berlin: "In the Department of Landscape Management and Nature Conservation-within the central administrative body for nature conservation-I have one employee for all work related to conservation. I am also responsible for landscape management and land improvement. Basically, as you can imagine, all we can do is put out fires and, what's more, we often have to let some of those fires burn out in order to extinguish the big fires. [...] The situation in the districts is similar. After a great deal of effort, ten districts have managed to get a government employee assigned to landscape management and nature conservation, but they are usually extremely busy with other responsibilities. In four districts, it has not yet been possible to get a government employee assigned to these matters. This work is currently being done by my coworkers at the Water Management Office, but only as time permits. What is it like in the *counties*? Even worse! We don't have any people there at all. This work, too, is supposed to be done by staff at the Water Management Office. [...] We are very fortunate to have the nature protection officers in the counties, who have been an enormous help [...]" (Henkel 1956, p. 214).¹¹

Government employees assigned to nature conservation continued to be overextended, and their workload grew as they dealt with the consequences of intensified land use. Not until 1964 was the system of forest administration changed and every district allocated a government employee with authority over nature conservation. This continued to be a "double-hatted" position, however, with shared responsibility for hunting. At this time, there were standing commissions for nature conservation in the district assemblies of some districts, such as Frankfurt (Oder), and in East Berlin.¹² The head of the ILN working group for Potsdam, Karl Heinz Großer, called for such commissions to be established in the county assemblies as well. He argued that they could help improve the lamentable situation in many county administrations, where nature conservation ,,always took second place or indeed typically third or fourth place to other responsibilities, and rarely remained within the remit of any one person for very long" (Großer 1965, 4).

Starting in the 1950s, many counties had unpaid, volunteer nature protection helpers (Naturschutzhelfer) in addition to the unpaid, volunteer nature protection officers whose positions were mandated by law. In some of these counties, helpers formed a nature conservation guard that had not been

¹¹ See also BArch DK 1/3687 (MLF, Abt. Landeskultur und Naturschutz, *Bericht über Naturschutzarbeiten*, 1956), pp. 23–42, and (*Stellenplan, u. a. Landschaftsgestaltung und Naturschutz*), p. 42.

¹² In East Berlin, this commission was called the Kollegium zur Förderung des Naturschutzes, or Council for the Promotion of Nature Conservation.

provided for in the law. In the early 1960s, a nationwide total of 3,700 nature protection helpers was recorded. However, the rights and obligations of these helpers had not been regulated in the Nature Protection Act of 1954.

The work of the unpaid, volunteer nature protection officers was regulated by the implementing orders of the Nature Protection Act. The first implementing order of February 15, 1955, established that the officers were to be issued photo IDs and given expanded powers. In addition to the right of trespass that had already existed under the Reich Nature Protection Act, these powers included the right to demand the identification papers of "wrong-doers" and to seize stolen goods (such as bird eggs or skins) or equipment used by the thieves (such as glue traps or other traps). The second implementing order of October 1955 regulated material compensation for the work done by the officers at the county and district levels.

The Institute for Landscape Research and Nature Protection (Institut für Landschaftsforschung und Naturschutz, ILN) acted as a scientific coordinator and was responsible for advising and instructing the nature protection officers and helpers. Together, the Institute and the officers did their best to fill the gap left by the closure of nature protection offices and the shortage of staff in government administrations.

In addition to the regulations mentioned above, many more regulations¹³ were enacted in the 1950s and 1960s to "efficiently exploit" and "reproduce" natural resources (in accordance with ecological requirements) (Oehler 2007, p. 102). "Drafters of legislation in the 1960s made use of detailed studies that analyzed the general state of the environment and looked at emerging trends. In particular, they relied on the conclusions and potential solutions elaborated in such studies, which incorporated technological, scientific, economic, pedagogical, organizational, and legal approaches. [...] The key issues were: the recycling of waste products to reduce negative impacts on air, water, soil, and landscapes; landscape conservation and management of agricultural landscapes; ecosystem complexity and interconnections; and the integration of issues including leadership, planning, independence [of commercial and industrial enterprises], and economic stimulus into the 'New Economic System' (Neues Ökonomisches System, NÖS)" (Oehler 2007, p. 103).

Conservation work in the 1950s and 1960s consisted primarily of the following:

- repeated revision of natural monuments lists in the counties; documenting existing natural monuments, and working to secure new ones
- marking protected objects and areas with "conservation owl" signs
- helping to regulate the extent and type of commercial land use in protected areas and the construction of buildings there
- assessing landscape-altering activities as part of the review process for site permits
- taking inventory and performing upkeep in manor parks
- conducting biogeographic mapping of selected animal and plant species, and drafting the first "red lists" of endangered/threatened species

¹³ First Implementing Order of 15 February 1955 for the Nature Protection Act of the GDR, containing a list of animals threatened with extinction; Regulation of 15 February 1955 concerning the Protection of Non-Game Wild Animals other than Birds; Regulation of 24 June 1955 concerning the Protection of Wild Plants; Regulation of 24 June 1955 concerning the Protection of Non-Game Wild Birds; Regulation No. 2 of 24 July 1958 concerning the Protection of Non-Game Wild Birds; Directive of the Central Nature Conservation Administration of 22 August 1955 regarding the Procedure for the Declaration of Landscape Areas as Nature and Landscape Protection Areas, and of Individual Natural Areas as Natural Monuments, and regarding the Provisional Safeguarding of Unprotected Objects; Regulation of 24 June 1957 regarding the Declaration of Landscape Areas as Nature Protection Areas; Regulation No. 1 of 30 March 1961 concerning Nature Protection Areas (in which final protection status was awarded to nature protection areas provisionally protected by district councils in the period 1956–1958. It was followed by Regulation No. 2 of 30 April 1963 concerning Nature Protection Areas, Regulation No. 3 of 11 September 1967 concerning Nature Protection Areas, and Regulation No. 4 of 28 November 1983 concerning Nature Protection Areas.); Directive of 6 March 1956 und Regulation of 5 August 1959 regarding the Reclassification of Forests into Cultivation Groups, supplemented by the Directives of 8 July 1966 and 23 December 1967 regarding the Classification of Forests into Cultivation Groups; Water Act of 1963, mining regulations, land regulations, forest regulations, hunting regulations, guidelines for the protection of monuments, regulations for health cures and remedies, protection of the residential environment (municipal waste management, air pollution control, noise abatement); Directive of 5 September 1969 regarding Measures for the Protection and Care of Waterbirds in the GDR.

- systematically selecting, designating, and signposting new nature reserves and landscape protection areas; drafting management guidelines for nature reserves and landscape protection areas
- performing landscaping activities aimed at protecting fields from erosion (including a largescale program for planting poplars outside woodlands), and assisting in "Komplexmelioration" (land improvement measures to facilitate industrialized agricultural production)¹⁴
- public outreach in the form of presentations and excursions, as well as designing exhibitions, educational nature walks, hiking trails, and natural history collections

A new kind of public outreach program called Nature Protection Weeks (Naturschutzwochen) was started in 1957. The concept was tested in pilot projects conducted in the districts of Potsdam and Karl-Marx-Stadt in 1956, and was later established throughout the GDR, together with the Week of the Woods (Woche des Waldes). Each of the Weeks was dedicated to a centrally assigned conservation theme. In 1966, the tradition of Landscape Days (Landschaftstage) was born. These events took place over several days and featured presentations and discussions. Initially they addressed problems resulting from the growing popularity of large recreational areas. The first Landscape Day took place in Neubrandenburg in 1966 and addressed the issue of the Müritz lake district. It was here that the idea of national parks was publicly debated for the last time.

A System of Nature Protection Areas and Landscape Protection Areas

One area of conservation work on which there was general agreement and cooperation was the systematic selection, designation, and signposting of new nature reserves. Following theoretical advances in nature conservation associated with the Nature Protection Act, there emerged a system of nature reserves designated according to scientific principles. Starting in 1972, the Institute or Landscape Research and Landscape Protection published five successive volumes of the "Handbook of the Nature Protection Areas of the GDR".

Management guidelines for nature protection areas had been drafted earlier in the 1960s. They reflected a need for maintenance and, to an extent, for development in the protected areas, and thus indicated an understanding on the part of conservationists that the conditions they desired could be achieved only by expending effort on maintenance. This was a new development in conservation theory. The guidelines took the place of separate, specific regulations and could be easily adapted if necessary.

The first implementing order of the Nature Protection Act introduced the possibility of restricting the designation of nature protection areas in accordance with scientific priorities, such as the collection of data for the development of site-appropriate forestry (forest protection areas, Waldschutzgebiete) or the creation of refuges for animal species or communities of animals (wildlife reserves). Thus a systematic approach was taken to selecting protected areas. In subsequent years, a system of forest protection areas and water protection areas was developed, along with a system of wildlife reserves that was "more difficult to define" (Großer 2002, p. 98).

The system of forest protection areas, which was an early (and unconscious) reflection of the idea of protecting natural processes, was inspired by calls made by Herbert Hesmer (from Eberswalde) to protect *Naturwaldzellen*, or "natural forest cells" (Hesmer 1934), and supported by Kurt Hueck with his call for "more forest reserves" (Hueck 1937).

One of the new protected area categories, the landscape protection area, was to be used above all for recreation and the creation of recreational opportunities. Problems resulting from local and weekend recreational activities had been on the rise since the late 1950s, exacerbated by certain government policies such as the introduction in 1966 of a five-day work week on alternate weeks. After the Berlin Wall was built in 1961, there was a dramatic increase in the number of people tra-

¹⁴ Komplexmeliorationen encompassed a variety of measures, including the drainage of wetlands, the creation of large fields that could be worked with heavy machinery, the planting of windbreaks, the planning of industrial farming facilities, and the development of rural infrastructure.

veling to the woods and lake shores of these recreational areas, and to the shores of the Baltic Sea. The need for conservation work rose accordingly. Areas with lakes were hit particularly hard by these recreational demands on the countryside (Gloger 1962 and 2007). The law regulating the Seven-Year Plan described the situation as follows: "New holiday areas shall be developed in the most beautiful areas of the Republic with particular attention paid to climatic conditions" [...] "Local government bodies shall significantly expand opportunities for weekend and local recreation. The network of establishments where day trippers can rest and get refreshment shall be improved, and new recreational areas featuring nature parks and public parks shall be developed. Suitable land shall be made available by local government bodies for weekend hostels [state-run holiday accommodations], holiday housing developments, and camping grounds" (Henkel 1960, p. 10).

A systematic approach was also taken to identifying and securing landscape protection areas. Part of the landscape areas protected under the Reich Nature Protection Act were converted into landscape protection areas. The work of drafting management plans for landscape protection areas had begun in the 1960s. This, too, was a new approach in conservation, and an idea that landscape architects such as Werner Bauch, Walter Funcke, and Harald Linke had been working on since the early 1960s (see references in Wübbe 1999). Specific details of these plans also go back to this period, as can be seen in work published by Karl Heinz Großer, head of the ILS branch office in Potsdam, among others (Großer 1967). Matters relating to landscape planning were dealt with primarily in the district planning offices for regional, city, and village planning (later called Offices for Territorial Planning).

It should be noted at this point that the system of protected areas including both nature protection areas and landscape protection areas owed its existence in large part to the sociopolitical changes that resulted from the founding of the East German state, in particular to the fact that private property no longer presented the hurdle it once had and public participation played virtually no role in matters of policy. The approach to protection that was taken in practice reflected a broadening and shift in conservation theory toward justifying protection on scientific grounds and actively preserving and shaping protected areas.

The First National Institute for Nature Protection Research in Germany

With the approval of the Presidium of the Council of Ministers and in consultation with the Central Office for Research and Technology, the Institute for Land Research and Nature Conservation (ILN) was founded as a member institution of the German Academy of Agricultural Sciences (DAL), effective April 1, 1953. The Institute had its headquarters in Halle/Saale and subsequently established five working groups for the areas corresponding to the five former states (Reichhoff and Wegener 2016). In terms of its mandate, the ILN followed in the tradition of such institutions as the Prussian National Office for the Management of Natural Monuments or the Reich Office for Nature Protection. The ILN was founded shortly before the Nature Protection Act was adopted. Both the founding mandate of the ILN and the Nature Protection Act point to a specific development within the German tradition of nature conservation. The principal mission of the ILN, as defined by the Act and the ILN charter, was to generate and organize the knowledge of the landscape that was considered necessary for nature conservation and landscape management.

Section 13 of the Act sets out the role and responsibilities of the ILN:

"(1) All natural science institutions and government conservation authorities shall work together to ensure that nature conservation is practiced in accordance with scientific principles and knowledge.

(2) The German Academy of Agricultural Sciences in Berlin, Institute for Land Research and Nature Protection, shall harmonize the research work performed by various institutions in the field of nature conservation; work with the Central Nature Protection Office; provide expert guidance to the nature protection officers of the counties and districts, keeping them informed, during mutual briefing sessions, of the current state of scientific research; and maintain connections with all scientific institutions and organizations dedicated to nature conservation, both German and foreign." The ILN charter had previously defined three areas of responsibility for the Institute:

- perform regional landscape studies from biological, biogeographical, and site-specific perspectives,
- 2. study protected areas and objects, and provide expert advice regarding nature conservation practices in the GDR,
- 3. collect all previously published documents and maps for the various landscapes of the GDR.

The mandate given to the ILN clearly gave priority to landscape-related research, which initially was aimed at areas either worthy of protection or already under protection and later increasingly concentrated on landscapes where agriculture and forestry were practiced or where mining had been conducted. This firm focus on research, with the mandate not only to organize and coordinate conservation studies but also to conduct independent research, was a new development in the history of national nature conservation institutions in Germany.

The first director of the ILN was Hermann Meusel, a botanist and university professor at Halle who held the position in a part-time capacity until 1963. He was succeeded by two full-time directors: Ludwig Bauer (until 1974) and Hugo Weinitschke (until 1991).

The first branch offices were also established in 1953: one in Halle (initially housed at the headquarters, then moved to Dessau in 1983), one in Potsdam (for the districts in Brandenburg) and one in Jena (for the districts in Thuringia). Additional offices were opened in 1954 in Greifswald and Dresden (for the districts in Mecklenburg-Western Pomerania and Saxony, respectively). Each of the branch offices conducted research for "scientific priority programs," in addition to providing advisory and coordinating services. Initially there was only one part-time director, one to two research associates, and a secretary for each of the branch offices. The branch offices were headed by H. Bohnstedt in Halle, W. R. Müller-Stoll in Potsdam, J.-H. Schultze in Jena, K. H. C. Jordan in Dresden, and T. Hurtig in Greifswald. All five men were university professors who taught in the cities where their offices were located.

As at the headquarters, the branch offices later employed full-time directors. A list of these directors and the years in which they were appointed follows: at the Jena office Ernst Niemann in 1963 and Walter Hiekel in 1978; at the Dresden office Hans Schiemenz in 1959 and Rolf Steffens in 1985; at the Halle office Hugo Weinitschke in 1963 and Peter Hentschel in 1968; at the Potsdam office Karl Heinz Großer in 1962, Lutz Reichhoff in 1986, and Matthias Hille in 1988; at the Greifswald office Harry Schmidt in 1963 and Gerhard Klafs in 1970.

The branch offices published their own regional conservation magazines in cooperation with the district councils. These publications focused on practical issues of nature conservation and featured articles from both government and volunteer conservationists. The first issue of "Naturschutzarbeit in Mecklenburg" (Nature Conservation Work in Mecklenburg) appeared in 1958, followed by "Naturschutzarbeit und naturkundliche Heimatforschung in Sachsen" (Nature Conservation, Natural History, and Heimat Research in Saxony) in 1959, "Naturschutzarbeit und naturkundliche Heimatforschung in den Bezirken Halle und Magdeburg" (Nature Conservation Work, Natural History, and Heimat Research in the Bezirke of Halle and Magdeburg) in 1963, "Landschaftspflege und Naturschutz in Thüringen" (Landscape and Nature Conservation in Thuringia) in 1964, and "Naturschutzarbeit in Berlin und Brandenburg" (Nature Conservation Work in Berlin and Brandenburg) in 1965. In 1961 another publication, the Archive for Nature Conservation and Landscape Research (Archiv für Naturschutz und Landschaftsforschung), appeared. Published by the German Academy of Agricultural Sciences/Academy of Agricultural Sciences of the GDR and edited by the ILN, it put greater emphasis on scientific topics.

Many different professional and institutional relationships were formed with neighboring socialist countries. Only after legal changes in 1970 (when the amended Nature Protection Regulation was adopted) was the ILN able to profit from wider-ranging international collaboration.

Starting in the mid-1950s, a number of biological field stations were opened or reopened across the GDR. Here, as at the ILN and its branch offices, scientists conducted applied ecological research, assisted by volunteers. Some of the stations were later assigned to the ILN. By the 1960s, the list of field stations included the following (Müller 1965):

- 1. Seebach Bird Observatory (county Mühlhausen, Thuringia), whose principal activities were in the field of applied ornithology
- 2. Steckby Bird Observatory (county Zerbst, Saxony-Anhalt)
- 3. Neschwitz Bird Observatory (Saxony), dedicated primarily to animal and ecological research in the fields of Bautzen and in the ponds and heath of Lausitz
- 4. Serrahn Biological Field Station (Mecklenburg), which focused for the most part on questions of applied ornithology and which, beginning in the 1960s, performed hydrological studies and drafted guidelines for maintaining close-to-nature forest ecosystems
- 5. Hiddensee Biological Research Institute, which worked mainly on biological studies of the southern shore of the Baltic Sea, in particular the "Boddenlandschaft" (bodies of water along the shore that often form lagoons). The Institute's Bird Observatory Department was the central coordinator of all bird-banding activities in the GDR, and the headquarters for all studies on bird migration and bird biology.
- 6. Langenwerder Island Bird Preserve (between the island of Poel and the peninsula of Wustrow), where phytogeographical and meteorological data were gathered, together with data on coastal morphology
- Müritzhof Field Office, Institute of Forest Protection and Hunting at the Technical University Dresden, located in Tharandt, which primarily pursued research in animal ecology in the Müritz lake district
- Fauler Ort Biological Field Station, Zoological Institute at Martin Luther University Halle-Wittenberg. The field station was located near the nature protection area "Ostufer der Müritz" and served primarily as a teaching station for biology students.
- 9. Field Station of the Research Center for Limnology in Jena-Lobeda, located on Stechlin Lake near Rheinsberg. Staff there studied the ecological consequences of using the waters around Rheinsberg to supply cold water to the Rheinsberg nuclear power plant.

- 10. Neunzehnhain Hydrobiological Laboratory (county Marienberg/Saxony), a research and teaching lab for hydrobiology
- Dölzig Field Station, with a satellite station in Finsterwalde. It was assigned to the ILN in 1967 and focused on the problems of reclaiming lignite mining areas.

Earlier, in 1956, the Working Group for the Protection of Animals Threatened with Extinction (Arbeitskreises zum Schutze vom Aussterben bedrohter Tiere, AKSAT) was founded under the aegis of the ILN in Halle.

A new training facility for nature conservation, the Zentrale Lehrstätte für Naturschutz (Central Educational Institution for Nature Protection), opened its doors on September 14, 1954, in Müritzhof. By 1990, it had trained several thousand protection helpers. The facility was established by Kurt and Erna Kretschmann and was managed by them until 1960. Subsequent directors were Wilhelm Linke (until 1975) and Dieter Martin (until 1990). The facility received regular funding from the state budget from 1956 onward and was assigned to the ILN in 1966.

The biological field stations and the Müritzhof facility all employed at most just one to two research associates and an average of two technical staff (see also Reichhoff 2011 on organizational developments).

Nature Conservation from 1970 to 1982

"Socialist Environment" Policy Sparks New Hope Among Conservationists

As the economy grew in the 1960s, the objectives and practices of nature conservation expanded to address environmental impacts. These new objectives included reducing noise pollution; maintaining good water and air quality; protecting soil from erosion; properly disposing of waste; and, following the transition to industrial agriculture, tackling overall problems resulting from the management and development of agricultural landscapes. Almost inevitably, demands were made for comprehensive legislation that regulated not just issues of nature conservation but also of environmental protection. The term "Landeskultur" was taken out of its traditional agricultural context and expanded to mean environmental protection.¹⁵ "Sozialistische Landeskultur" came to be synonymous with environmental policy and protection.¹⁶

A shift in this direction could be seen as early as 1963, when, at the urging of the Cultural Alliance Central Commission for Nature and Heimat, proposals were submitted for a new law to replace the Nature Protection Act of 1954. Before the year was out, these proposals were adopted under the title "Principles of Socialist Environment Policy in the GDR" by the Ministry of Agriculture and Forestry and declared a binding addendum to the Nature Protection Act. They were the legal precursor to the Environment Act of 1970.

The work of drafting this new law was resumed in 1968. That year, under the leadership of Werner Titel—the deputy chairman of the Council of Ministers (Ministerrat) who had championed the "New Economic System of Planning and Management" (Neues Ökonomisches System der Planung und Leitung, NÖSPL)¹⁷ and was a personally interested advocate of and acknowledged expert in nature conservation and environmental protection—a group of representatives from the Friends of Nature and the Homeland, the ILN, and pertinent universities studied the environmental situation and made projections "regarding the development of socialist environment policy and its specific objectives and practices." In 1969, a Standing Working Group for Socialist Environment Policy was created, also under Titel's direction. It drafted the bill that was to become the Environment Act. Lawyer Ellenor Oehler played a key role in that work.

On May 14, 1970, the People's Chamber (Volkskammer) of the GDR not only passed the Environment Act (Gesetz über die planmäßige Gestaltung der sozialistischen Landeskultur – Landeskulturgesetz, LKG)¹⁸ that superseded the Nature Protection Act of 1954; it also adopted several implementing orders (I.O. – Durchführungsverordnung, DVO) for the Act.¹⁹

The passage of the Environment Act was preceded by an amendment of the Constitution of the GDR that established nature conservation and environmental protection as responsibilities of the state. Article 15 of the Constitution, which, like the Environment Act, remained unchanged until the end of the GDR, stated: "(1) The land of the German Democratic Republic is among its most precious natural assets. It must be protected and efficiently used. Land used for agriculture or forestry may only be diverted to other uses with the approval of the competent government authorities. (2) The State and society provide for the protection of nature in the interest of the well-being of all citizens. The maintenance of water and air purity, the protection of the plant and animal world, and the safeguarding of the natural beauty of the Heimat [Homeland] shall be ensured by the

¹⁵ Landeskultur now referred to "sociopolitical measures for the sensible use and effective protection of the environment (environmental protection) through the combination of production practices with ecological, sociocultural, and aesthetic requirements". (BI-Handlexikon, 2nd ed. 1984) – In West Germany, Landeskultur retained its traditional meaning as a broad term encompassing measures for soil conservation, soil improvement, land reclamation, and land consolidation. (Brockhaus-Enzyklopädie, 19th ed. 1990)

¹⁶ "Sozialitische Landeskultur" is translated here as "socialist environment policy" or "socialist environmental protection."

[&]quot;Die sozialistische Landeskultur umfasst alle staatlichen und gesellschaftlichen Maßnahmen zur planmäßigen und rationellen Nutzung und Gestaltung sowie zum Schutz der natürlichen Umwelt der Menschen. [Sie] zerfällt in folgende Teilkomplexe: Umweltschutz, Landschaftspflege und -gestaltung, Naturschutz." (Martin 1989, p. 6)

¹⁷ The New Economic System of Planning and Management, was an economic policy introduced in 1963.

¹⁸ Gegenstand dieses Gesetzes ist die planmäßige Entwicklung der sozialistischen Landeskultur als System der natürlichen Umwelt und zum wirksamen Schutz der Natur mit dem Ziel der Erhaltung, Verbesserung und effektiven Nutzung der natürlichen Lebens- und Produktionsgrundlagen der Gesellschaft – Boden, Wasser, Luft sowie Pflanzenund Tierwelt in ihrer Gesamtheit – und zur Verschönerung der sozialistischen Heimat." (Environment Act, Section 1)

¹⁹ These regulations included the first I.O. concerning the Protection and Care of the Plant and Animal World and the Beauties of the Natural Landscape—Nature Conservation Regulation (*Schutz und Pflege der Pflanzen- und Tierwelt und der landschaftlichen Schönheiten—Naturschutzverordnung*); the second I.O. concerning the Accessibility, Management, and Development of the Landscape for Recreation (*Erschließung, Pflege und Entwicklung der Landschaft für die Erholung*); the third I.O. concerning the Cleanliness of Cities and Municipalities and the Recycling of Residential Waste (*Sauberhaltung der Städte und Gemeinden und Verwertung von Siedlungsabfällen*); and the fourth I.O. concerning Protection from Noise (*Schutz vor Lärm*).

competent authorities and are, moreover, the responsibility of every citizen." A modern reading of this article of the Constitution would find that it defined environmental protection and environmental management as the responsibilities or objectives of the state. The official order to draft the Environment Act was issued by the Council of Ministers in February 1969 with explicit reference to Article 15 of the Constitution (Oehler 2007, p. 105).

The Environment Act, as a "complex legal framework," defined "fundamental goals and principles and [contained] basic regulations concerning nature and landscape conservation, soil, woods, water, air, waste, and noise. This framework was fleshed out and implemented by means of existing legislation that addressed certain subjects as well as by regulations that were or would be enacted as implementing orders for the Environment Act. The stated aims of the Act were as follows: overcoming a lack of coordination among government agencies and ministries with regard to measures involving environmental impacts; long-term predictive studies; environmental impact reductions by means of economic incentives; improved economic results through the identification and utilization of biogeochemical cycles and multifunctionality; and cooperation among the various target groups (for example between polluters and those affected by pollution) with broad participation of the public. The preamble of the law made note of responsibility for future generations" (Oehler 2007, p. 106).

The Environment Act also extended the mandate of nature conservation—which until then, in terms of both law and thus tradition, had focused its protective efforts primarily on "living nature," that is, on animal and plant species and their habitats—to such features of inanimate nature as soil, water, air, and quiet (via noise abatement) (Environment Act, Section 10). The list of action objectives was also expanded. The effect of these changes was to completely free nature conservation from its previous perspective, which was conservative and backward-looking.

With this expansion from landscape "protection" to landscape "management," "design," "development" (in the sense of planning), and "restoration" (of damaged landscapes, Environment

Act, Section 11), the Environment Act-like West Germany's Federal Nature Protection Act (Bundesnaturschutzgesetz, BNatSchG) of 1976 and various environmental protection laws of the 1970s²⁰—provided a political response (even if in practice it was not realized for the most part) to the "blessings" of an industrial energy revolution after the Second World War. This revolution involved the increasing use of petroleum, natural gas, and uranium and was distinguished by mass motorization, the widespread use of new technologies and chemicals in private households, the encroachment of human settlements on previously unspoiled areas, and the industrialization of the agricultural sector. Partaking in these "blessings" was declared an important new social goal under the Honecker administration, which came to power following the removal of Walter Ulbricht as head of state in May 1971. It was to be accomplished by expanding the consumer goods sector and was encapsulated in a slogan-"the union of economic and social policy"-which was quoted incessantly. As a result of widespread shortages, however, "consumerism" (Andersen 1996) gained relatively little ground compared to the industrialized countries of Western Europe.

The strategy of integrating nature conservation into land use was placed on a firm legal footing by the Environment Act. The "multiple use of landscapes" was considered to be a "principle of socialist environment policy" (Weinitschke 1980, pp. 78–79). Under this policy, conservation issues were to be given the same priority as other interests and to be reconciled with those interests when deciding matters related to land use. As became evident in the years that followed, however, interests such as agriculture, residential development, and industry had precedence.

While the Nature Protection Act contained a series of clear requirements and prohibitions regarding protected objects and areas (even if their implementation proved increasingly difficult in some respects), the Environment Act primarily contained objectives for representative assemblies, government institutions, social organizations, enterprises, and individual citizens regarding the implementation of environmental requirements. The tools put at the disposal of nature and landscape conservation in the Environment

²⁰ The goal of "restoration" (Wiederherstellung) was included in the amended Federal Nature Protection Act of 2002.

Act's section on "landscape conservation and management, and protection of the nature of the Heimat (homeland)," consisted of regulations concerning the protection of endangered species on the one hand and categories of protected areas on the other.

In terms of actual impact on the practice of nature conservation, it was not so much the Environment Act but the implementing orders (I.O.), "technical standards, quality regulations, delivery terms" (Technische Normen, Gütevorschriften und Lieferbedingungen, TGL)²¹, and "department standards" that were key. The first I.O. regulated the protection and conservation of the plant and animal world and the beauties of the natural landscape, while the second regulated how landscapes would be managed, developed, and made accessible for the purpose of recreation.

The first I.O., issued on May 14, 1970, and given the title Nature Conservation Regulation (Naturschutzverordnung), was based largely on the Nature Protection Act of 1954, with respect to both structure and content. There were, however, some appreciable differences:

- The I.O. eliminated the term "nature conservation body" (Naturschutzorgan) and replaced the heading of the relevant passage with "Management of Nature Conservation" (Leitung des Naturschutzes). Local councils were made responsible for nature conservation across the board. They had the authority to assign council members responsibility for nature conservation, but were not obligated to do so. This arrangement was seen, probably not without reason, as an attempt to further disorganize and downgrade the significance of nature conservation. However, the terms for the administrative bodies that dealt with conservation on the district and county levels were so firmly established that, for the most part, they continued to be used. In some cases, a flood of submissions was lodged with the council chairman, forcing them to appoint a council member to handle matters related to nature conservation and environmental policy.
- The "obligation to tolerate" that was formulated with such stringency in the Nature Protec-

tion Act ("Property owners or those bearing legal responsibility for the property [...] are to tolerate protective measures. These measures can be implemented through the use of police force [... and] do not constitute grounds for compensation") was recast as an "obligation to support," which demanded of property owners or those bearing legal responsibility for the property that they "undertake any modifications [... in order to] reconcile their [land] use with measures set out in the management guidelines for nature reserves and landscape protection areas."

- Penalties for violating the provisions of conservation laws and regulations changed. While severe penalties could be imposed under the Nature Protection Act, any violation of the first I.O. was dealt with as an infraction (Ordnungswidrigkeit) and punished with a maximum fine of 200 East German marks.
- The list of categories of protected areas was expanded to include wetlands of international importance (Feuchtgebiete internationaler Bedeutung, FIB), wetlands of national importance (Feuchtgebiete nationaler Bedeutung, FNB), and biosphere reserves. These changes came about in part through participation in international conventions, in particular the 1971 Ramsar Convention on wetlands, which came into effect in 1975 and which the GDR adopted in 1978 in accordance with a resolution of the Council of Ministers. In 1979, Steckby-Lödderitz and Vessertal were designated as biosphere reserves by UNESCO. A long stretch along the Elbe River was also designated as a biosphere reserve. The Environment Act did not provide for national parks or natural parks.

The system of administration laid out for nature conservation under the Nature Protection Act of 1954 was retained, apart from the above-mentioned weakening of the obligation to appoint authorities, in particular at the county level. Nor were any significant changes made in staffing, which continued to be completely inadequate. What was new was the establishment of conservation field stations, in particular in the districts of Neubrandenburg and Potsdam, and later in other districts.

²¹ National technical standards. They were requirements with the force of law and not mere guidelines.—Trans.

This resulted in more government employees working on nature conservation at these locations.

The status of the unpaid, volunteer nature protection officers essentially remained unchanged. With the enactment of the first I.O., the position of "nature conservation helper" was officially introduced. The unpaid, volunteer nature protection officers and helpers received an identity document that entitled them to exercise the powers of a public authority. These powers were the same for both groups. They were accorded a kind of right of inspection. However, while the Nature Protection Act of 1954 stipulated that they were "to ensure [...] that nature conservation regulations were followed," after 1970 they were simply "to contribute to the enforcement of legal regulations concerning nature protection."

In addition to the nature protection officers of the counties and their frequently active deputies, there were communities of protection helpers and other volunteers in all of the GDR's 227 counties (and East Berlin). Martin calculated that in 1982 there were 12,000 protection helpers across the country (amounting to approximately 53 per county). Wegener estimated that the number of active helpers ranged between 20 and 40 volunteers per county. "Active counties" counted upwards of 100 helpers (Wegener 1998, p. 93). In addition to the nature protection officers and helpers, there were other volunteer conservationists. These people included district officers for waterbird research (Working Order of November 27, 1970), species protection and bird banding, as well as the appointed members of the Cultural Alliance group, Friends of Nature and the Homeland (heads of the national, district- and county- level expert committees, and various working groups). Those working on an official basis as volunteers (in all of the above-mentioned positions) were legally required to be reimbursed for their travel expenses. In addition, the nature protection officers of the districts and counties received a tax-exempt lump-sum payment for the reimbursement of expenses. The amount was set by the respective district council. Volunteers were sometimes given such generous leave from their paid work that their protection activities could in some sense be seen as part- or full-time jobs. This helped disguise dire personnel shortages in government administrations.

The Ministry for Environmental Protection and Water Management (Ministerium für Umweltschutz und Wasserwirtschaft, MfUW) was established in 1972. Subordinate institutions were created, including the following: a national environmental inspection agency and center for environmental management; environmental inspection agencies in the districts; and standing commissions for environmental protection, water management, and recreation in the district and county assemblies. Additional groups of volunteer conservationists, called working group for socialist environmental protection (Arbeitsgruppe sozialistische Landeskultur) were established by the district councils to work on environment issues.²²

In the early 1980s, the number of environmental protection officers in factories and businesses began to rise, reflecting growing environmental problems. The district councils and some of the county councils established standing working groups for socialist environmental protection (Ständige Arbeitsgruppen sozialistische Landeskultur) and/or standing commissions for environmental protection, water management, and recreation (Ständige Kommissionen Umweltschutz, Wasserwirtschaft, Erholungswesen). Personnel for "socialist environmental protection" were hired in some state-run forestry operations, such as those in the district of Suhl and Magdeburg.

While the Environment Act may have provided a legal basis for the strategy of integrating nature conservation into land use, it was a purely formal one. Hopes that landscape planning would be integrated into spatial planning for the country as a whole, and not limited to landscape protection areas and nature reserves, remained unfulfilled. The position of nature conservation generally was weakened, particularly with respect to agriculture. Some progress could be seen in the explicit departure in the Environment Act and associated implementing orders from a preservationist philosophy of nature conservation. Among the stated goals of the management guidelines for both nature reserves and landscape protection areas were the management, development, and planning of landscapes. However, there were no other significant

²² For more on the organization of environmental protection in the GDR, see Behrens and Hoffmann (2007, pp. 41–47).

changes that could have helped accomplish the expanded objectives of socialist environmental protection.

The Environment Act of 1970, like the Nature Protection Act of 1954 before it, applied to both populated and unpopulated areas. In terms of its impact, however, it continued to be restricted largely to unpopulated areas and, in particular, to protected areas and objects.

Socialist Intensification in Agriculture and Forestry

As far back as the 1950s, conservationists had had to contend with demands for extensive increases in agricultural production. The idea of plowing up meadows and pasture lands to gain additional croplands, for instance, was widely promoted. At the time, calls to preserve or even expand grasslands were seen as reactionary. In the 1960s, nature conservation was increasingly confronted with problems resulting from intensified land use (including grassland use), and attendant land improvement and fertilization practices. The complete collectivization of agricultural production, which had been achieved throughout the GDR by 1960 and which aimed to industrialize agriculture and revolutionize social structures in villages, put increased pressure on agricultural landscapes. Contributing further to extensive changes in the country's agricultural landscape were large-scale drainage projects in major wetlands such as Friedländer Große Wiese in Western-Pomerania and Wische in Altmark. These projects were carried out by young people as part of government-organized youth activity programs.

It was the policy of "socialist intensification," however, that first brought about really fundamental changes in the agricultural landscape. The resolutions of the SED's Sixth Party Congress in 1963 and Seventh Party Congress in 1967 contributed to the intensification of land use.

The New Economic System of Planning and Management was announced at the Sixth Party Congress in 1963. This was an attempt to introduce an economic management system that combined a planned economy approach with the price mechanisms of the market. From that time on, the state mantras were "specialization, cooperation, and industrial production." Pilot projects and prestige projects were given unreasonable targets, which were not restricted to large-scale land improvement programs for grasslands. Many agricultural landscapes were radically reshaped to facilitate industrial production methods, including sprinkler irrigation and factory-style "animal production." These efforts encompassed drainage projects, the construction of access roads and industrial farming facilities, land leveling, and land consolidation. "General land improvement plans" (Generalmeliorationspläne), classified as confidential, were implemented systematically. These measures were initiated and enforced by high-level SED party leadership bodies, often in the face of resistance from the affected enterprises. Farmers did not generally accept these new developments as they led to a breakdown in the relationship between the village and the countryside and caused an increasing sense of alienation from the natural resources of production among agricultural workers. Evidence of such alienation can be found in remarks made in 1971 by Hans-Friedrich Joachim of the Institute of Forestry Sciences in Eberswalde. In a reference to the sometimes extreme denuding of fields and meadows, he stated: "Mention should be made of the benefit of bushes and small trees along field boundaries. Tractor drivers working on large areas need a visible boundary to the fields in which they work, both to reduce symptoms of fatigue and to give them a sense of achievement. Aspects of industrial and organizational psychology and of occupational health and safety thus have a role to play in deliberations regarding the planting of shrubs and small trees along large fields" (Joachim 1971, p. 8).

The slogan "socialist intensification" originated at the Seventh Party Congress of 1967 in the context of attempts to accelerate and intensify the use of scientific findings and technological advances. Another slogan was "überholen ohne einzuholen", a phrase that used the metaphors of "pulling ahead" and "catching up" to suggest that the East should overtake the West economically without following in its capitalist path. These slogans were created to further the implementation of the "Economic System of Socialism" (Ökonomisches System des Sozialismus, ÖSS), as the New Economic System of Planning and Management was referred to at this stage.

The power of the agricultural lobby can be seen in Article 15, Section 2, of the 1968 Constitution of the GDR. While this new version of the Constitution enshrined nature conservation, it did not contain the section in Article 26 of the 1949 Constitution which named landscape design and management as effective strategies for ensuring the stability of agricultural production. This change was related to political and economic developments which saw two new agricultural policies introduced on a grand scale following the Seventh Party Congress in 1967. The first involved the use of a variety of measures aimed at supporting industrial agriculture (drainage projects, construction of access roads, and industrial agricultural facilities, etc.). The second called for the separation of animal and plant production and established two new enterprise types: Kooperative Abteilungen Pflanzenproduktion (KAP) and Kombinate Industrielle Mast (KIM). KAP were cooperatives that farmed areas encompassing multiple communities, while KIM-literally ,,industrial fattening combines"-were large-scale animal production operations (Krenz 1996). Preservation-oriented landscape management were no longer desired.

Food supply targets were raised despite the fact that croplands were shrinking as a share of the country's total area and air pollution was negatively affecting yields. As a result, the agricultural sector was forced to constantly step up production. This led not only to a complete restructuring of enterprise and land-use models, but to an increase in the use of heavy machinery and agrochemicals (applied using technology such as cropdusting), and to complex manipulations of soil moisture. The consequences were fertilizer and pesticide residues in ground and surface water, as well as growing soil erosion and compaction. Large-scale animal production facilities caused additional water and air pollution.

Forestry was not untouched by "socialist intensification." In the mid to late 1950s, forced industrialization and better earning potential in other sectors resulted in an increasing number of forestry workers seeking employment outside their field. Soon there was a noticeable shortage of labor. Resulting pressure to streamline operations caused the labor-intensive approach of optimal stocking forestry (vorratspflegliche Waldwirtschaft) to be replaced for a short time by site-appropriate forestry (standortgerechte Forstwirtschaft). This brief phase—introduced on October 18, 1961, by a decree of the Ministry of Agriculture and Forestry on the Principles of the Silvicultural Management of Forests in the GDR²³—was a high point of site-appropriate forestry, in which stand tending continued to play a major role.

This phase came to an end in 1967, as Gerhard Grüneberg, an influential member of the SED Central Committee, turned his attention from agriculture to forestry and pushed for the use of industrial production methods there, too. These methods were also promoted at the Seventh Party Congress and at the Tenth German Farmers Congress in 1967. Forestry policy now favored the use of heavy machinery, which led not only to the renewed dominance of clearcutting as a practice, but to ever-larger clearcuts. Under these conditions, timber production took the place of forest management and growth. From 1970/71 on, forestry was fully integrated into central economic planning. Special mechanical harvesting crews were formed as silvicultural practices receded into the background. "Utility and economics, combined with pronounced dirigisme, determined what was done in the forests. District foresters and head foresters were essentially reduced to mere executors" (Milnik, Heyde, and Schult 1998, p. 212).

This phase of socialist intensification in forestry was marked, particularly in the 1970s, by increasingly frequent and ever larger clearcuts (up to 30 hectares), greatly reduced cultivation of deciduous species, and a rise in game populations. The clearcutting inevitably led to the widespread use of chemicals and heavy machinery, as well as the establishment of pine and spruce monocultures. Increases in population targets for game, including red deer, fallow deer, and roe deer, were the result of the greater status accorded to hunting as a part of the "developed social system of socialism."

"Socialist intensification" continued to have an effect, especially in agriculture and forestry, until the late 1970s and, together with lignite mining, dominated the day-to-day problems of nature conservation, which, despite the concerns and warnings of its advocates (see Meusel, Bauer, and

²³ The original German title of this decree is "Grundsätze zur waldbaulichen Behandlung der Forsten in der Deutschen Demokratischen Republik."

Weinitschke 1961; Weinitschke 1962), received virtually no attention.

The Oil Crisis and the Revival of Lignite Mining

The revival of lignite emerged as a serious problem for nature conservation following the oil price shock of 1973 (when OPEC dramatically raised the price of crude) and other price hikes for raw materials that the GDR had to import. By 1974, the price of crude had increased by a factor of five. This trend continued from 1975 to 1980. The price per barrel rose from \$1.80 in 1970 to \$17.26 in 1979. That price then doubled within a year and reached \$32–34 per barrel in 1980 (Wenzel 1998, pp. 67 and 74; Roesler 2012, p. 78).

The strategy of the SED leadership was to replace oil with lignite. Considerable investments were made in retrofitting measures, with the result that funds were not available for repair and modernization needed elsewhere. Ambitious consumption-oriented programs, such as the housing program, contributed to lower levels of investment in industry and accelerated the process of wear and deterioration in manufacturing facilities. This had the "side-effect" of reducing the role of environmental protection in the one- and five-year plans (Paucke 1994). By 1990, maintenance costs in the manufacturing sector had reached DM 49 billion, the same level as investments. Seventeen percent of total potential output went toward maintenance and repair (Behrens 2007, p. 2).

The constant expansion of lignite mining (as well as the construction of housing in previously undeveloped areas) resulted in a reduction of arable land. From 1971 to 1985, a total of 45,729 hectares of cropland across the GDR was reallocated to lignite mining. The total area of reclaimed mining fields, at 12,945 hectares for the same period, lagged far behind the total area of reallocated croplands, both in terms of quantity and quality (in particular soil utility). In the period from 1971 to 1975, approximately 35 percent (4,914 ha) of the area that had been appropriated for mining (14,282 ha) was reclaimed, while in the period from 1981 to 1985 that figure was only 19 percent (3,038 ha reclaimed/15,930 ha appropriated).

The district of Cottbus provides a good illustration of the consequences of the lignite revival for nature conservation. Cottbus had established itself as one of the GDR's principal coal and energy districts early on, following the launch of a national coal and energy program in 1957. The east of the district contained 45 percent of the country's industrially accessible lignite reserves. The three lignite mines VE Braunkohlenkombinat Senftenberg, VE Kombinat Cottbus, and VEB Schwarze Pumpe Lauchhammer employed approximately 79,000 people in the 1980s, amounting to 49.5 percent of all employees in the industry. In the early 1980s, the SED and the political leadership resolved to significantly expand lignite mining. Extraction targets for the district of Cottbus were set to rise from 148.9 million tonnes in 1980 to 200 million tonnes in 1990, and to stay at that level for "decades." The district assembly of Cottbus therefore placed 45 lignite deposits totaling 172,000 hectares under protection. These "protected mining areas" (Bergbauschutzgebiete) comprised 21 percent of the total area of the district.

In 1980, there were 11 surface mines in operation. By 1989 six more had been started and five others—according to government plans—were supposed to be shut down due to reserve depletion. Records indicate that in 2000, operations were to commence at 21 surface mines. Three hundred areas (villages, municipal districts, and residential developments) would have been affected by lignite mining.

Nature conservation was essentially a lost cause in lignite mining areas. The consequences of lignite mining included the razing of towns and landscapes, reductions in ground water levels, changes in topography, increased environmental impacts due to air and water pollution, and spoil banks. If the mining program had been carried out as planned, 12 nature reserves with a total area of 1,044 hectares, large parts of 14 landscape protection areas, and 17 parks with a total area of 129 hectares would have been bulldozed. In addition, 16 nature reserves and 32 parks would have been affected over the long term by reductions in groundwater levels (Wittig 1982, pp. 4–17).

The only jobs remaining to the ILN and its volunteers in those areas which actually were affected was to step up their efforts at taking inventories and documenting natural processes in nature reserves, and to resettle selected animal and plant populations to alternative biotopes.

In April 1989, the ILN presented a paper titled "Concept for the Development of Nature Conservation Measures in the County of Weisswasser in View of the Expansion of Surface Lignite Mining Begun in 1988."²⁴ Its predictions for the future of nature conservation were gloomy. According to the paper, the expansion of lignite mining would result in 62 percent of the district of Weisswasser being razed. Approximately 90 percent of the district would experience reductions in groundwater levels, and a number of nature conservation areas and objects would suffer increased environmental damage as a result of emissions. It called for as much information as possible to be collected from the protected areas that were threatened with destruction in order to document what had been worthy of protection there. It also recommended that genetic resources be secured and an attempt be made to resettle certain animal and plant species to other locations.

Nature Conservation from 1982 to 1989

Environmental Problems—Signs of the Collapse of the GDR

By the 1980s, certain regions of the GDR—the industrial areas centered around Leipzig and Halle foremost among them—were facing catastrophic environmental conditions as a result of the revival of lignite mining, the consequences of its use in the chemical industry, accelerating deterioration of manufacturing facilities, the burning of lignite as heating fuel, and the continued policy of intensive farming and forestry.

In the late 1980s, the GDR's main energy sources were, as a share of total power generation, lignite at 70 percent, followed by petroleum at 12 percent, and natural gas at 10 percent. The country's gross domestic energy consumption, at 233 gigajoules per capita, was one of the highest in the world. Only Canada, the United States, Scandinavia, and Luxembourg consumed more energy per person. The GDR had the highest levels of sulfur dioxide and particulate pollution in all of Europe, with annual emissions amounting to approximately 2.2 million tonnes of particulates and 5.2 million tonnes of sulfur dioxide per unit area. The principal industrial polluter was the coal and energy sector, which was responsible for 58 percent of sulfur dioxid emissions and 41 percent of particulate emissions, followed by the chemical industry at 12 percent of sulfur dioxid and particulate emissions. The emissions were concentrated in the districts of Cottbus, Frankfurt/Oder, Halle, Karl-Marx-Stadt, and Leipzig.

Industry in the areas around Halle and Leipzig largely used pre-war technology. Over half of the facilities operated by large chemical manufacturers here, such as Leuna and Buna, were over 20 years old in 1990 (Nyssen 1992, p. 15, footnote 11). One of the consequences was that a large number of the plants' employees had to be assigned to repairs. Prisoners and conscientious objectors (called Bausoldaten, or construction soldiers) were also assigned to these jobs, which were sometimes quite dangerous (Vesting 2003).

Between 1974 and 1989, regions with particularly high air pollution levels were found to have an increased incidence of respiratory and other illnesses. In some cases, there were quite significant increases. For example, the number of children suffering from bronchitis in these areas jumped by approximately 50 percent during this period. Thirty percent of the children had endogenous eczema. It was estimated that the main impacts on health in these regions, apart from respiratory diseases, were psychosomatic disorders.

The principal causes of environmental pollution and land "misuse" in the industrial problem regions of the GDR were lignite mining and the chemical industry, in particular product lines (such as carbide) which had been discontinued in other countries for economic and ecological reasons. The country's often dilapidated factories were a hotbed of health problems, occupational accidents, environmental hazards, and state surveillance (Plötze 1997; Thielbeule 1983; Hülße 1986; Landkreis Bitterfeld 1996).

In 1989, 54.3 percent of the forests in the GDR showed evidence of negative environmental impacts, 16.4 percent to a moderate or extreme

²⁴ "Konzept zur Entwicklung der Naturschutzarbeit im Kreis Weißwasser unter der Ausweitung des Braunkohlenbergbaues ab 1988 (Bestandteil der komplexterritorialen Raumstudie Weißwasser)," 7 April 1989, folder of correspondence for the district of Cottbus 1974–1989 (Schriftwechsel Bezirk Cottbus), ILN Archive, Brandenburg Landesamt für Umwelt.

degree, and 37.9 percent to a lesser degree. The environmental report of the GDR shows an increase in negatively impacted wooded areas from 31.7 percent in 1987 to 54.5 percent in 1989.

Significant funds and effort were needed to make the GDR's scarce natural water resources usable as a stable and sufficiently high-quality water supply for the general population, industry, and agriculture and to protect the water in watercourses that crossed international borders or ran into the Baltic Sea. The state of the main watercourses in the GDR was such that in 1990 only 20 percent of classified river sections could be used for drinking water abstraction when normal water treatment technologies were applied. Complicated and very expensive treatment technologies were required for 35 percent, and 45 percent were no longer usable for drinking water at all. In early 1990, 67 percent of industrial wastewater requiring purification was processed in wastewater treatment plants. Of municipal wastewater, 85 percent was treated. Of the wastewater discharged into watercourses, 14 percent was untreated. Mechanical processes were used in 36 percent of wastewater treatment, and a combination of mechanical and biological processes in 52 percent. Phosphorus was removed from 14 percent of the total wastewater. A great many of the wastewater plants and pipelines were in need of repair. Of the existing 36,000 km of wastewater pipelines, approximately 26,000 km were damaged, in some cases badly damaged. More than half the organic pollution load was discharged into watercourses untreated.

In 1988, the GDR produced 91.3 million tonnes of solid industrial waste and secondary raw materials (compared to 80 million tonnes in 1980). Of this waste, 39.9 percent was recycled (compared to 36.4 percent in 1980). Part of the remaining 60.1 percent was stored with a view to foreseeable recycling opportunities that would allow the material to reenter the economy and be reused. A considerable amount of unusable waste was released directly or indirectly into the environment, however. In 1989, approximately 3.9 million tonnes of solid municipal waste were recorded, of which 2.9 million tonnes were household waste. There was not a complete record made of the number and state of waste disposal sites for industrial waste and municipal waste in 1989, but according to data for 1988, there existed at least

13,000 waste disposal sites, of which approximately 2,000 were for industrial waste and approximately 11,000 for municipal waste. In all, 87 percent of investments in waste disposal were targeted at the creation or expansion of capacity for the safe disposal of industrial waste; these investments were aimed at safeguarding continued production, above all in the energy, chemical and mining industries. Municipal waste was handled locally and disposed of for the most part in unregulated sites. Of the approximately 11,000 municipal waste disposal sites, only 120 were sanitary landfills. Another 1,000 were regulated landfills and the rest were created and operated without authorization or regulation (see Petschow, Meyerhoff, and Thomasberger 1990 on the environmental performance of the GDR).

Classified Environment Data and Environmental Dissidents

It is not surprising that as adverse environmental impacts became increasingly evident, environment data became a potentially explosive issue for the government of the GDR. There was no official assessment of the situation until 1990, when the Environment Report of the GDR was published. Several years prior to that, the Presidium of the Council of Ministers had passed a resolution establishing the confidentiality of environment data. This Directive Regarding the Collection, Processing and Safeguarding of Information about the Condition of the Natural Environment of the GDR (Anordnung zur Gewinnung oder Bearbeitung und zum Schutz von Informationen über den Zustand der natürlichen Umwelt in der DDR) issued on November 16, 1982, was followed by a second directive on April 27, 1984. These directives reflected the rigidity of the political system and the unwillingness of the SED leadership to engage in dialog.

It is equally unsurprising that under conditions such as these an environmental movement of dissidents and independent thinkers sprang up. One of the first independent environmental groups to emerge had its roots in tree-planting campaigns carried out by church youth groups in the town of Schwerin in 1979. Starting in early 1981, this group, centered around Jörn Mothes and Nikolaus Voss, held annual ecology seminars which until 1983 were the most important platform for organizing and networking in the environmental movement. The church was virtually the only place where an independent ecology movement could develop (Beleites 2007, p. 185; Gensichen 1994 and 2007). The church research center (Kirchliches Forschungsheim) in Wittenberg-became the organizational center of the movement. It published the first issue of its magazine "Briefe zur Orientierung im Konflikt Mensch-Erde" (Letters Providing Direction in the Conflict between Man and Earth) in 1981. Starting in 1982, at the initiative of the church, the church research center hosted an annual gathering of representatives of church-sponsored environmental groups. The Umweltbibliothek (Environment Library) was founded on September 2, 1986, by activists who had previously been part of a church-centered peace and environment group in Berlin-Lichtenberg. The group was given space in the Zionskirche church in Berlin-Mitte and started publishing its "Umweltblätter" (Environment Papers) the same year it was founded. From 1985 to 1989, there were about 60 to 65 independent environment groups across the country, with a total membership of between 550 and 850 people. They came together to form the Netzwerk Arche (Ark Network) in 1988, and later the Grüne Liga (Green League) in 1990.

One of the principal activities of these groups was to organize regional protests on issues including "coal, chemicals, forest dieback, highway construction, waste, uranium, nuclear power plants, and large-scale, collectivized farming" (Beleites 2007, p. 187). The growth of independent environmental groups reflected a failure on the part of the state to attract people to comparable state-sponsored groups, such as those in the Cultural Alliance. One such institution, the Society for Nature and Environment (Gesellschaft für Natur und Umwelt, GNU) was founded as part of the Cultural Alliance on May 27, 1980. It was intended to provide a "home" to conservationists as well as environmental activists who were concerned with urban and industrial environmental problems, and it formed working groups to study issues of urban ecology. Cultural Alliance records for 1987 show 380 urban ecology groups with a total of 7,000 members. The Cultural Alliance did not accomplish its mission of serving as a home to these groups, however.

The environmental problems described above and the work of those who tackled them—both in the independent environmental movement and in the critical groups of the Cultural Alliance—helped to make a "healthy environment" one of the top priorities of the citizens of the GDR in 1989.

Government Conservation Work—between Principles and Practice

Government conservation authorities were no match for the country's growing conservation problems. The general lack of conservation personnel in district and county administrations continued into the 1980s. The ILN addressed the problem at a meeting of its branch managers and Dölzig department staff in Müritzhof on June 24– 25, 1986. A document summarizing the results of the meeting assessed the performance of government conservation authorities and provided a trenchant account of the general situation:

- "Local representative assemblies, at both the district and county levels, occupy themselves with questions of nature conservation very rarely (once every five years, on average).
- The council members in charge of these issues work on them with similar infrequency, unless they are given particular cause to do so through input from the citizenry (usually regarding only specific, local problems) or proposals made by the ILN. Conservation is almost unique among the subjects handled in government departments, in that government direction, guidelines, or reporting obligations either do not exist at all or are rudimentary. This is true of both central and district administrations. In some cases, however, individual council members may be personally interested in conservation and as a result may be unusually dedicated to the job.
- In the districts, a single government employee is tasked with all matters related to nature conservation and only rarely does this person possess the qualifications required of the job. Moreover, it is common for additional, regularly recurring tasks to be given to this employee, who is generally considered to be non-essential. The position typically also has a high turnover (particularly when held by enterprising

staff who are familiar with the ways of the administration). By and large, work at the district level can be characterized as a "one-person job."

- At the county level, matters pertaining to nature conservation are—or are supposed to be—dealt with by staff in the hunting and nature conservation department. The 'double-hatted' status of the department, together with the fact that it reports to two different authorities (the chairperson of the county council and the Agriculture and Forestry Department), place high demands on its staff and in practice mean that 80 to 90 percent of the work they do is related to hunting. (This is particularly true of counties that hold large amounts of woodland, according to statements made by government employees.)
- The collective agreement (Rahmenkollektivvertrag) for public authorities mentions only a "head of the subject area of hunting." There is no mention at all of the subject area of nature conservation. The ranking on the salary scale is relatively low. This is the reason (or pretext) for the great neglect of conservation work, along with the fact that the issues of nature conservation are not easy to grasp and require higher qualifications. The number of counties in which government conservation work is "good," that is, performed effectively, is estimated at 20 percent.
- At the county level, the effective functioning of government conservation work is restricted to counties in which either or both of the following hold true: the county has an enterprising volunteer force (county nature protection officers and helpers) and/or the government employee responsible for nature conservation has a personal interest in it. In some cases, members of the Environment, Water Management and Recreation Department, despite having a heavy workload related to the department's own affairs, have performed conservation-related tasks better, or have been the only ones to accomplish them at all (documentation available).
- When the position of the county nature protection officer is not filled or is inadequately filled, and the composition of the county council is unfavorable, a situation can arise in which

government-administered nature conservation is virtually non-existent for years at a time (approx. 20 percent of the counties).

- According to a resolution made by the district council of Rostock in 1982, counties that are located in industrial regions or possess large hunting grounds, and as a result have heavy workloads in either conservation or hunting, should handle these workloads separately, with each assigned its own government employee. This has not yet been implemented.
- The lack or inadequacy of government personnel has a particularly negative impact on the review process for site permits. Leaving aside the lack of consistent and binding regulations regarding the involvement of nature conservation authorities in the preparation of all landscapealtering measures, project documents submitted for conservation-related review to county councils are approved without reservation, provided no nature reserves or natural monuments are affected. The provisions laid out in regulations such as those concerning species protection continue to be completely disregarded! This causes valuable matter to be irretrievably destroyed or damaged.
- Under these circumstances (and with some exceptions), there can be no question of applying landscape conservation principles and [effectively] working with landscape protection areas. Even in some of the district councils, landscape protection areas—even those of central importance—are excluded from the sphere of responsibility of the forestry and conservation departments (for example, the district of Rostock). In some cases, this work is taken on by the Environment, Water Management and Recreation Department.
- The training of government conservation officials on the district level [...] is inadequate; as a result, only those staff who are very assured and extremely dedicated meet the expectations placed on them.
- The public authorities responsible for nature conservation do not have the capacity or work methods needed to move beyond the activities of old-style, defensive, preservationist nature conservation (placing areas/objects under protection, or creating/enforcing regulations aimed at mitigating impacts). As a result, it is not

possible to implement constructive, long-term plans in harmony with use and protection. The standing of nature conservation cannot be raised under these conditions.

- The ILN is required by law to provide expert advice to [public authorities entrusted with] conservation work [...]. This requires that we have partners in government who are authorized to take this expert knowledge into consideration and apply it in the implementation of government guidelines. Without such partners, research and consultation work in this sector are ineffective. The same is true of unpaid, volunteer nature protection officers, who are only rarely able to wholly fulfill their social function. The esteem in which this function is generally held is a reflection of this fact.
- As a result of the situation regarding public authorities, complicated conservation work (large-scale water management projects, land improvement, traffic, etc.) is passed on to the regional working groups of the ILN, whose lack of capacity forces them to make ad hoc evaluations and assessments that do not do justice to the scope and long-term consequences of these measures. When it comes to implementation, narrow departmental considerations often tip the scale against optimizing conditions in the economy and society as a whole. Because of its limited capacity, it is seldom possible for the ILN to monitor and evaluate the results."²⁵

The signatories to this document made several suggestions for overcoming discrepancies between legal regulations and actual conservation practices. The suggestions were modest considering the extensive list of shortcomings that they were addressing, however, and were largely restricted to increases in staffing, better qualifications, and higher wages.

Thus the prospects for nature conservation toward the end of the GDR looked anything but bright, and without the selfless work of unpaid, volunteer nature protection officers and other volunteers, there would have been no progress (Wegener 1998, p. 89).

Nature Conservation from 1989 to 1990

Last-Minute Strategies for Change

An amended version of the Nature Conservation Regulation titled "Protection and Care of the Plant and Animal World and of the Beauties of the Natural Landscape" (Schutz und Pflege der Pflanzen- und Tierwelt und der landschaftlichen Schönheiten) was enacted on May 18, 1989, shortly before the tumultuous events of October and November 1989. The regulation came into effect on June 19, 1989, and introduced several improvements to the government's toolkit of conservation practices. It was the result of efforts on the part of the ILN to devise a new strategy for nature conservation.

While tackling conservation issues in the natural landscape as a whole did not conflict with traditional conservation theory and objectives, the work of the ILN, researchers in cooperating institutes, and conservation volunteers focused on protected objects and areas (or those deserving of protection) and performed research in large natural monuments, nature protection areas and landscape protection areas. Conservation successes were largely limited to these "islands" in the countryside, with large natural monuments and nature protection areas far ahead of landscape protection areas in terms of priority. The system of nature protection areas was considered to be complete as far back as the early 1970s. The areas protected under that system constituted at best 0.9 percent of the total area of the GDR and did not conform to the dominant, industrial form of land use. The limits of the "island" approach to nature conservation could be seen in areas where lignite mining or intensive agriculture and forestry were heavily promoted, or where marginal lands were re-assigned to non-agricultural use. The problem of threats to biodiversity, and consequently of cultivar loss and the need to protect cultivars, was sufficiently well known and yet was not reflected in conservation practices.

As early as 1976, at a conference in Wesenberg, Mecklenburg, 25 leading members of national and

²⁵ ILN publication, "Zur Wirksamkeit der staatlichen Organe auf dem Sektor Naturschutz als Teil der sozialistischen Landeskultur, Greifswald, den 25.8.86, unter Verwendung der Zuarbeiten von Dr. Hentschel, Dr. Hiekel und Dr. Reichhoff zusammengestellt von Dr. G. Klafs," folder of correspondence for the *Bezirk* of Potsdam and Berlin, Meetings of the *Bezirk* Council 1970–1989 (Schriftwechsel Bezirk Potsdam und Berlin, Beratungen RdB), ILN Archive, Brandenburg Landesamt für Umwelt.

district botany committees called for a new concept of nature conservation, one "that is commensurate with the present and future conditions of land use" (Weber 1998, p. 159).

The traditional concept and practices of nature conservation, now almost one hundred years old, appeared increasingly obsolete in the face of failures to tackle conservation issues outside of protected areas.

In 1987, employees of the ILN published ideas for a new definition and strategic realignment of conservation. These ideas, which they had been preparing for years, articulated a clearer distinction between the objectives and practices of nature conservation and those of environmental protection and landscape management (Reichhoff and Böhnert 1987). In an approach based on the concept of resources, they divided natural resources into exhaustible and inexhaustible resources and the latter category into restorable (soil, biomass, ecosystems, landscapes) and unrestorable resources. The unrestorable resources were divided into those that were developmentally passive (fossil fuels, ores, and minerals) and those that were developmentally active (diversity of species and forms in organisms, genetic diversity of populations). Based on this system, they derived strategic and tactical objectives of nature conservation.

Nature conservation, according to their theory, was principally concerned with the protection of exhaustible, unrestorable, developmentally active resources. Environmental protection was concerned with inexhaustible resources; and landscape management was concerned with exhaustible but restorable resources. Resource economics, on the other hand, was concerned with exhaustible, unrestorable, developmentally passive resources (Reichhoff 2009).

On the basis of this theory, the strategic goal of nature conservation was defined as the preservation of the diversity of species and forms within living nature (Reichhoff and Böhnert 1987, pp. 148–149). The authors then developed premises for the establishment of a "unified theoretical conception of nature conservation" and for conservation research. In view of profound changes in the diversity of natural species and forms, they felt research needed to focus on preserving threatened populations of species and forms and to do from the perspectives of evolutionary biology, population genetics, and population ecology. This tactic of redefining nature conservation as the selection of proper scientific, legal and practical measures should, they said, be used primarily in the protection of species and forms. They identified the red lists created in the 1970s as "guideposts for a tactical approach in nature conservation" (Reichhoff and Böhnert 1987, pp. 151–152). The authors called for the preventive protection of species and habitats.

The concept of resources as a category that would guide the definition of objectives and practices was intended to promote the acceptance of nature conservation among those who thought primarily in economic terms and acted on the basis of economic considerations. These people included political decision-makers, staff in other public institutions and administrations, and not least land users. In this way, species and biotope protection could be depicted as a measure to protect exhaustible, unrecoverable, developmentally active natural resources, thereby safeguarding the basic prerequisite of any economic utilization of such resources.

The phrase ,,diversity of the species and forms of organisms" was included in the new nature conservation regulation. This change improved the legal basis of species and biotope protection considerably. Section 11 (2) of the regulation introduced the concept of "total reserve" (Totalreservat) and expanded the protection of natural processes; Section 12 introduced the legal category of biosphere reserve and Section 13 that of protected wetlands; Section 14 enabled the designation of sanctuaries for species threatened with extinction; Section 15 established natural monument areas as an independent category and expanded the maximum possible protected area from three to five hectares; Sections 20 and 21 used the term "red list" and regulated the protection of the locations of protected plants and the habitats of protected animals; Section 22 regulated the designation of other protected organisms (for example, fungi); and Section 24 introduced ecologically important areas (protected biotopes) (Reichhoff 2009). Toward the end of 1989, numerous small areas across the GDR were provisionally protected in accordance with Sections 15 and 24.

The new regulation would not ultimately have remedied the problem of understaffing in government conservation departments. The role of volunteers, however, was strengthened. Section 6, for example, called for citizen participation in conservation work. The possibility of forming advisory committees for nature conservation (Section 7) was also new. In effect it reintroduced the volunteer-staffed conservation offices that had been abolished by the Nature Protection Act of 1954.

The National Parks Program of the GDR

The unexpected opening on November 9, 1989, of the border separating East and West Germany was followed by the formation of a new government headed by Hans Modrow (from November 18, 1989, to the early elections of March 18, 1990). It also heralded a new period of nature conservation that set many milestones and laid the foundations for a national parks program of the GDR. The idea of a national parks program for the entire GDR, which would preserve and develop large areas of the countryside, emerged in a variety of places. One of those places was Waren an der Müritz (Knapp 2012, p. 53), where an action group had formed, demanding the closure of the state hunting grounds located on Lake Müritz. "The group was quick to react to the political changes and, by December 18, 1989, had presented the People's Chamber, Prime Minister Modrow, and the Round Table of the GDR with a nine-page document detailing the steps needed to establish a national park on Lake Müritz and outlining a national parks program for landscapes in regions that they deemed particularly worthy of protection. These included Southeast Rügen, Darß-Zingst-Hiddensee, the area around Müritz, Spreewald, the area around the Middle Elbe, the Elbe sandstone highlands, Eichsfeld, and Rhön. This document named eight of the fourteen areas later protected under the unification agreement (Rösler 1998, p. 562).

The Ministry of Nature Conservation, Environmental Protection and Water Management (Ministerium für Naturschutz, Umweltschutz und Wasserwirtschaft, MNUW) was founded on January 1, 1990. On January 15, 1990, Michael Succow was appointed deputy minister, in charge of resource protection and land use planning. Like the Müritz action group, Succow had proposed the designation of several national parks in letters written in December 1989 to the then Minister of Environmental Protection and Water Management. More ideas for national parks came from the head of the church research center in Wittenberg, Hans-Peter Gensichen; from conservationists Uwe Wegener and Heinz Quitt working in the High Harz; and from others in Sächsische Schweiz.

Through March 1990, Succow brought many people with him to the nature conservation division of the Ministry. Among them were Rolf Caspar, former secretary of the governing board of the Society for Nature and Environment in Berlin, Hans-Dieter Knapp (self-employed botanist), Matthias Freude of the Humboldt Universität zu Berlin, Lutz Reichhoff of ILN Dessau (and Deputy Director of the ILN), Wolfgang Böhnert of ILN Dresden, Lebrecht Jeschke of ILN Greifswald, and several leading ILN staff members.

On January 27-28, 1990, conservationists from East and West Germany met in Berlin for a major conference on nature conservation. The preceding weeks had been spent in a lively exchange, renewing contacts that had been largely severed after the Wall was built in 1961. As the Cultural Alliance member organization Society for Nature and Environment slowly collapsed in the months from November 1989 to March 1990, a number of new groups were founded in the GDR. These included the Grüne Liga (Green League), a network of independent, local environment groups, and the Naturschutzbund der DDR (Nature Conservation League of the GDR). This latter group, formed on March 18, 1990, was a spin-off of the Society for Nature and Environment. In addition, an increasing number of environmental organizations operating in West Germany, including BUND, WWF, and Greenpeace, established branches in the GDR (Behrens 2010 b).

The first meeting of the Central Round Table (Zentraler Runder Tisch) took place on December 7, 1989. The Central Round Table convened a total of 16 times before its last meeting on March 12, 1990. The "round tables," which were also held at local levels, had become "new forms of representation and legitimation" (Bundeszentrale für politische Bildung 2013) that tried to fill the power vacuum left after the rule of the SED and its bloc parties collapsed. The Central Round Table formed a working group for "ecological reorganization" (ökologischer Umbau), which presented the results of its activities on March 5, 1990, with a "Proposal Regarding the Inclusion of Ecological Principles in Social and Economic Development."²⁶ On April 4, 1990, the Central Round Table presented a constitution for a democratic and independent GDR based on the principles of the welfare state and environmentally sustainable development. "But at this point the political revolution of the GDR had already moved beyond reform positions such as these. In the end, the Round Table was merely left with the job of organizing the first free elections in the GDR, which were brought forward from May 1990 to March 18, 1990" (Bundeszentrale für politische Bildung 2013).

Another round table, the Central Green Table of the GDR, was established by the MNUW. It met for the first time on January 24, 1990. Among the issues it discussed was the national parks program. The Green Round Table met again on February 21, 1990, but was disbanded after the elections on March 18.

In early February, 1990, Hans-Dieter Knapp formed a National Parks Committee at the MNUW. Its members included ministry staff as well as representatives of citizens' initiatives and members of local administrations from the areas affected by the plans for large-scale protected areas. Meetings were initially held once per month but became much more frequent in the summer of 1990.

Earlier, on January 30, 1990, a preliminary proposal for a national parks program had been drafted. It contained the categories "national park," "biosphere reserve," and "natural park reserve" (Naturschutzpark), this last category being a more strongly preservationist variant of the category of "natural park" (Naturpark), which was enshrined in the West German Federal Nature Protection Act (Bundesnaturschutzgesetz, BNatSchG). Succow presented this proposal to the Central Round Table at its meeting on February 5, 1990. The Round Table approved it unanimously and requested that the government make the necessary funds available promptly (Rösler 1998, p. 566).

In mid-February, the MNUW issued its first regulation aimed at strengthening government conservation work. It resulted in the formation of functioning conservation authorities in the counties and districts.

"The plan was for each district to establish a nature conservation department with a staff of approximately eight people. There would be one person each assigned to species protection, landscape planning, the protection of woods and parks, land use planning, and soil conservation. In addition, the districts were to establish nature conservation centers, each with a staff of five to ten people, and nature conservation stations, each with a staff of eight to twenty people. With a view to the future reintroduction of the states, two employees were to be hired per district and tasked with setting up environment agencies for the states. There were to be changes on the county councils as well, with three to five employees assigned to nature conservation and land use. This amounted to approximately 1,400 jobs (N.N./Umweltreport 1990). Large parts of the reform were implemented in April. Approximately 1,000 new jobs were created in nature conservation, most of them filled by people who had previously been active in conservation in their leisure time. They now formed the indispensable basis not only of the GDR's national parks program but, more generally, of nature conservation in the GDR and, later, in the five new states" (Rösler 1998, p. 567).

In March, the Ministry succeeded in closing all the industrial animal production facilities for environmental reasons, with the exception of one in Ferdinandshof, Western-Pomerania.

Among the most remarkable conservation measures taken in the short period of the Modrow administration was the founding of the International Nature Conservation Academy on the island of Vilm, which until then had served as a resort for East Germany's political elite. At that point, cooperation with the West was already sufficiently advanced that the academy was established with the agreement of the West German Environment Ministry.

On March 16, 1990, the Council of Ministers approved a draft resolution for the national parks program. It named six biosphere reserves, five national parks, and twelve natural park reserves and called for these areas to be provisionally secured as landscape protection areas of central importance. On the basis of this resolution, development committees with 20 members each were established in the affected areas, and 6.55 million

²⁶ StUG 004-1. Collection of the Grüne Liga e.V.

East German marks were set aside for the program in that year's budget (1990).

Environmental Union and the Safeguarding of the "Family Silver of German Unification"²⁷

The government of Prime Minister Lothar de Maiziere, formed following the election of March 18, 1990, took up the mandate of the previous administration and allowed work on the national parks program to continue. This was the primary focus of its work on conservation, alongside the consolidation of conservation authorities.

On April 12, 1990, the MNUW was renamed the Ministry of Environment, Nature Conservation, Energy and Nuclear Safety (Ministerium für Umwelt, Naturschutz, Energie und Reaktorsicherheit, MUNER) to reflect the wording of the West German ministry's name. At the same time, Karl-Hermann Steinberg was appointed Minister.

Succow initially remained in charge of his division at the Ministry, but he resigned his post on May 15, 1990 (concerning his reasons for doing so, see Rösler 1998, pp. 571–574). In the meantime, work continued on the national parks program. At a meeting on June 25, 1990, at the West German Ministry for the Environment, Nature Conservation and Nuclear Safety in Bonn, the West German states arranged to support the national parks program in the form of a sponsorship scheme.

The Environmental Framework Law (Umweltrahmengesetz) was signed on behalf of the governments of the GDR and the Federal Republic of Germany (FRG) on June 29, 1990, and took effect on July 1, 1990, the same day that the currency union became effective. With this move, large parts of the West German Federal Nature Protection Act became effective in the GDR. At the same time, however, the national parks program profited from the fact that East German environmental law and regulations continued to apply at the states level.

"The Federal Nature Protection Act—and thus Section 16, which regulated natural parks—became directly applicable in the GDR as of July 1, 1990. East German law continued to apply to those issues which were not covered by the Federal Nature Protection Act but for which provisions had been made in the GDR's Environment Act and Nature Conservation Regulation. Examples included nest protection zones and biosphere reserves. In May and June, as the prospect of environmental union drew ever closer, the idea of natural reserve parks died. As political unification approached ever faster, efforts focused on securing as many areas of the national parks program as possible via the unification agreement. This was imperative, as GDR law would only apply in those areas not covered by the Federal Nature Protection Act for a limited time after the transition. [...]

The Environmental Framework Law stated in Article 6, Nature Conservation and Landscape Management,

- that the 23 areas named in the resolution of the Council of Ministers on March 16, 1990, would continue to have provisional protection status according to the GDR Nature Conservation Regulation of May 1989 (Section 5.2);
- that national parks, nature reserves, and landscape protection areas of central importance would be established by a resolution of the Council of Ministers (Section 6.1);
- that the Environment Minister was responsible for the provisional protection of national parks, nature reserves, and landscape protection areas of central importance; and for regulating the establishment and activities of administrative bodies for such areas (Section 6.2).

It is thanks to these provisions that it was possible to put the GDR's national parks program on a secure legal footing. The Environmental Framework Law, drafted in large part by West German lawyers who specialized in nature conservation law, was created with a view to implementing this program" (Rösler 1998, p. 577). Arnulf Müller-Helmbrecht, a lawyer from the Environment Ministry in Bonn who had been assigned to MUNER in mid-May, 1990, played a critical role in this work (Müller-Helmbrecht 1998).

When, on August 23, 1990, the People's Chamber of the GDR resolved that the GDR would ac-

²⁷ Klaus Töpfer, West German Environment Minister at the time of unification, characterized the national parks program as the "family silver of German unification."—Trans.

cede to the FRG on October 3, 1990, that date became the deadline for all decrees concerning all areas to be placed under protection. As the decrees were not issued until after the unification agreement between the GDR and the FRG was signed on August 31, 1990, the agreement does not contain any mention of the national parks program.

Just a short time before unification, in the last session of the Council of Ministers on September 12, 1990, six biosphere reserves, five national parks and three natural parks were placed under protection for the national parks program in accordance with the law of the GDR. Twelve other areas were placed under protection provisionally.

On September 18, 1990, an additional agreement pursuant to the unification agreement of August 31, 1990, was signed by Wolfgang Schäuble on behalf of the FRG and Günther Krause on behalf of the GDR. This agreement confirmed the 14 decrees concerning the national parks program that had been issued by the Council of Ministers. The other 12 areas were placed under provisional protection for a period of two years.

"Within ten months, more had been accomplished for nature conservation in terms of actual physical area than government and private conservation efforts had managed in the previous 100 years" (Rösler 1998, p. 583).

While the last chapter of East German history ended with unification on October 3, 1990, one of the country's conservation institutions survived beyond this date. The ILN, established in 1953, did not close its doors until December 31, 1991, after it had been evaluated by the German Council of Science and Humanities in May 1991. (For more on the closure of the ILN, see Behrens 2011.) The GDR's leading research institution for nature conservation thus existed for another 15 months within a united Germany.

The last research papers had been defended in the ILN in 1989 (for the research history of the ILN, see Reichhoff and Wegener 2016). In the first six months of 1990, the Institute's research work was gradually discontinued. Staff who had previously been involved in research now assisted in preparations for the designation of the national parks, biosphere reserves, and natural parks that were part of the national parks program. In September 1990, the ILN was divided into eight working groups, two departments, two biological field stations, a training center, and a branch office in Specker Horst.

In the new, or rather reinstated, states of eastern Germany, progress was being made in setting up their environment and nature conservation departments (the names varied, depending on the state). A number of former staff from the ILN branch offices were heavily involved in these efforts. By May 1991, the five branch offices of the ILN were subsumed into the respective state departments of environment and nature conservation, specifically in the nature conservation divisions of these departments. For the former ILN staff members who continued to work on conservation for the government, the character of that work changed fundamentally from research to responsibilities concerned solely with administration.

Assessing Nature Conservation in the GDR

Assessments of nature conservation in the GDR, and what it was and was not able to achieve, are likely to vary greatly, depending on one's personal perspective, the degree to which one was affected by it, and one's own experience in the field of nature conservation. Lutz Reichhoff, for example, who held a number of different government positions and thus experienced and shaped the field personally, takes a critical view. "Nature protection activities in the GDR were controlled by the state (legally and politically), supported by scientific research, and executed largely by volunteers. It was accorded a social niche that was filled by volunteers (both the GNU at an organizational level and those working as nature protection officers and helpers). Conservation work was only possible thanks to the constant encouragement of extremely understaffed and often demotivated government authorities. This is not to say that there were not also dedicated and active conservationists. [...] Nature conservation in the GDR lacked professionalism in planning and government administration, and among the volunteers. There were virtually no advances made in the legal instruments of nature conservation. It was only through international cooperation (MAB, protection of waterbirds) that new ideas and momentum came. [...] The organizational structure of public administrations was completely underdeveloped. This naturally created gaps that the volunteer force could try to fill. By no means, however, was it a modern, forward-looking form of conservation work. [...] On the whole, the enforcement of conservation law was not guaranteed by the rule of law, so that enforcement was marked by arbitrariness, deficiencies, very subjective judgments and relative valuations, personal influence, and the particular combinations of people involved at specific times and places.

In spite of all this, the intensive conservation work performed under these conditions, primarily by volunteers but also by employees of the state, yielded considerable results. The approach taken was typically a practical one. Because private property issues did not pose a problem, it was easy to implement conservation measures. These measures were even supported by the state. Volunteer nature protection officers and helpers were financially and otherwise supported in accordance with political parameters. In the end, the results of this work – protected areas, preserved populations of [threatened] species, practical experience, and a specific understanding of nature conservationwere passed on to the Federal Republic. It is virtually impossible, however, to continue work in the same vein, as sociopolitical conditions (i.e., property law, conservation law, administrative law and labor law) have changed" (Reichhoff 2009, pp. 24 and 25).

In terms of physical space, conservation work focused on the rural areas of the GDR, and above all on protected areas and objects. Its successes were restricted to the nature reserves, natural monuments, natural monument areas, landscape protection areas (recreational areas), and the populations of [threatened] species that were preserved. It was powerless against industrial agriculture, forestry, and fishing operations. It was just as powerless against problems in the traditional industries (lignite mining, lignite chemical industry, and uranium mining) and against urban environmental problems, such as open space protection, air pollution, waste and wastewater disposal and treatment, noise pollution, etc. There was, however, an awareness of these problems, which were the source of constant local conflicts.

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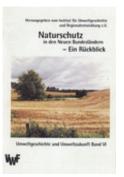
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