

**The German Water and Soil Associations –
self-governance for small and medium scale
water and land resources management**

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The German Water and Soil Associations – self-governance for small and medium scale water and land resources management

Die deutschen Wasser- und Bodenverbände – Selbstverwaltungsstrukturen für klein- und mittel- maßstäbliche Wasser- und Bodenbewirtschaftung

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Stichworte

Wasser- u. Bodenverbände, Wasserverbandsgesetz, Deutschland, Organisation, Governancestrukturen, Gemeinschaftsaufgaben der Wasser- und Bodenbewirtschaftung

Keywords

Water and Soil Associations, Water Association Act, Germany, organization, governance structures, collective action in water and land management

Zusammenfassung

Der Wasser- und Bodenverband (WuBV) ist eine spezielle und traditionsreiche Organisationsform deutschen öffentlichen Rechts, die neben anderen, konkurrierenden Organisationsformen prinzipiell für ein breites Spektrum gemeinschaftlicher Selbstverwaltungsaufgaben der Wasser- und Bodenbewirtschaftung geeignet ist. Derzeit sind in Deutschland über 12.000 WuBV tätig, insbesondere auf kleiner und mittlerer Maßstabsebene in der Gewässerunterhaltung, Be- und Entwässerung und im Hochwasserschutz. Die heutigen WuBV, die in einem Jahrhunderte langen institutionellen Entwicklungsprozess aus mittelalterlichen Deichgenossenschaften hervorgegangen sind, arbeiten auf der Rechtsgrundlage des Wasserverbandsgesetzes (WVG), das ihre Gründung, Aufgaben, Organverfassung, Mitgliedschaftsbeziehungen usw. regelt. Als Bundesrahmengesetz erlaubt das WVG den Bundesländern regionsspezifische Akzentuierungen und lässt den WuBV zudem einen Spielraum für die Regelung ihrer Belange durch eigene Satzungen. Die Stimmrechte und Beitragspflichten werden normalerweise nach dem individuellen Vorteil des einzelnen (in der Regel dinglichen) Mitglieds aus der Verbandstätigkeit gewichtet. Alle Mitglieder zusammen bilden das Willensbildungsorgan des WuBV, die Verbandsversammlung, die das Exekutiv- und Vertretungsorgan, den Vorstand wählt. Indem das WVG dem gewählten Vorstand eines WuBV starke Rechte gegenüber einzelnen Mitgliedern hinsichtlich ihrer Beitragspflichten einräumt und neben den Mitgliedsbeiträgen auch öffentliche Zuschüsse und zinsgünstige Darlehen als Finanzierungsquellen in Frage kommen, erweist sich der WuBV als eine zugleich flexible und durchsetzungsstarke Governancestruktur, die sich dementsprechend erfolgreich in der Praxis bewährt hat.

Abstract

The Water- and Soil Association (WaSA) is a traditional German public law form of organization, suitable for the collective provision of local public goods in the area of small and medium scale

water and land resources. Currently more than 12,000 WaSAs are active in Germany, particularly in watercourse maintenance, flood protection, irrigation and drainage. Today's WaSAs emerged from medieval dike cooperatives in a series of institutional changes. Their current legal basis is the Federal Water Association Act (*WVG*), which regulates the establishment, tasks, organs and membership of WaSAs. As a federal law providing guidelines the *WVG* permits regional adjustments by the *Bundesländer* and gives scope to the WaSAs to regulate their affairs by by-laws. Voting rights and contributions of the members normally are graded according to their individual benefits from the WaSA's undertaking. The members together form the general assembly as the decision-making organ, which elects the board as the executive organ. The board has strong rights regarding the contributions of individual members, and to a certain extent can draw on public grants and loans at low interest rates as well. In all the WaSA has been proven a successful governance structure due to its flexibility.

1. Introduction

The German institution *Wasser- und Bodenverband*, i.e. Water and Soil Association (WaSA) incorporates a very long experience in successful organizing collective action in managing water and land resources at the local level, reaching back to medieval times. Against the background of the international debate on institutional reforms in water management this frequently leads to the question of transferability of the WaSAs' institutional know-how into the irrigation and drainage sector of developing countries (NEUBERT, SCHEUMANN, EDIG (Eds.), 2002; WOLFF, KÖNIG, 1997; STEINAHECKER, 1998). However, despite the widespread occurrence of WaSAs, even in Germany itself their governance potential is not well known.

The aim of this article is to frame the WaSA with its key characteristics and its specific legal basis in public German law (RAPSCH, 1993), with the perspective of the New Institutional Economics (NIE) as a **governance structure** (WILLIAMSON, 2000). The paper begins with a short description of the local public goods provided by the WaSAs and their institutional alternatives in Germany. Then it comprises a brief retrospection of the historical fore-runners and gives an overview of the current regional prevalence of WaSAs across the German *Bundesländer*. After dealing with the fundamental legal basis, establishment procedure and membership requirements of WaSAs, it describes more detailed their membership relations including user participation and by-laws, and after this their organizational setup. Financial issues are considered next, and finally some conclusions concerning transferability are drawn.

2. Collective tasks – and governance structures to manage water and land resources jointly

The Water Association Act defines an overall scope of permissible **WaSA-tasks**. Although they vary in their degree of excludability and rivalry in consumption, the main characteristics of all these tasks is their public good nature. The proper performance of these functions usually goes beyond the capabilities of individual land-owners, land and water users, namely:

- waterbodies maintenance, expansion and renaturation,
- facilities in and along waterbodies (construction and maintenance),
- sea defense and flood protection measures including maintenance of embankments,
- irrigation systems construction, procurement, operation and maintenance,
- drainage systems construction, procurement, operation and maintenance,
- improvement of land including the regulation of soil water and soil air tables,
- joint agricultural facilities construction, procurement, operation and maintenance,
- rural roads construction and maintenance,
- water procurement and provision,
- waste water disposal,
- landscape conservation and protection of the natural balance and the soil.

Due to the public good nature of these functions, an institutional arrangement is needed that could help the owners of adjacent plots of land to join forces. In other words, governance is required, i.e. “an effort to craft order, thereby to mitigate conflict and realize mutual gains” (WILLIAMSON, 2000, p. 599). This may be a WaSA or another form of organization. In principle such arrangements may be reached on a voluntary basis (OSTROM, 1990) but it is rather helpful to have the support of the law. In Germany this has to be considered within the context of a federative administration. As a federal state (*Bund*) Germany consists of 16 states (*Bundesländer*), each endowed with legislative powers within their state borders to regulate collective tasks of water and land resource use and management. As a result, a **variety of governance structures** has been established throughout the country to tackle such tasks:

- public authorities either on the *Bundesland* level, or on the local or an intermediate level (KRAEMER/JÄGER, 1998; LERSNER/BERENDES, 2002),
- different WaSA-types regarding the organizational setup, membership provisions and tasks performed (RAPSCH, 1993), and
- two types of special functional administrative bodies, called *Kommunaler Zweckverband* (CRONAUGE, 1997) and *Sondergesetzlicher Wasserverband* (GLAGOW, 1984; HOLM, 1988), both formed by several municipalities. Sometimes the latter one also includes business companies and other stakeholders.

All of these alternative modes of governance are in principle qualified to deal with all the afore-mentioned tasks, but every mode has its particular merits regarding the type and scale of tasks involved. Within this set of different governance structures, the WaSA is one which is well suited as a self-governing body for collective small and medium scale water and land management tasks. That appreciation is the focus of this article, whilst all the other mentioned governance structures are left aside.

3. Historical forerunners and current regional prevalence of the German Water and Soil Associations

Water and Soil Associations have a very **long tradition** in Germany, in some areas reaching back to medieval times, especially in the coastal areas and lowlands in the northern parts of Germany. Collective action became first a necessity as vulnerable seashores and floodplains were populated. Hence, the 11th century dike cooperatives along the North Sea in *Frisia* (today part of *Lower Saxony*) and *Dithmarschen* (today part of *Schleswig-Holstein*) can be seen as the earliest forerunners of today's WaSAs. As the Frisians and Saxons had no feudalistic rulers, the construction and maintenance of dikes for flood protection had to be self-organized from the outset. First of all they achieved a local, mostly tribal institutional arrangement based on payments in kind ("*naturalwirtschaftliche Kommunioneichung*"). Over a period of eight centuries this system developed in several phases, thereby enlarging the covered territory, gradually untightening the tribal connections ("*Kleinkabeldeichung*"), and monetary payments becoming the standard form of contribution ("*geldwirtschaftliche Kommunioneichung*") (GOLD-BECK, 1991). Besides dike cooperatives, similar organizations for other land and water use issues evolved by and by (LINCKELMANN, 1950), thereunder

- dike and sluice associations ("*Deich- und Sielverbände*") since the late middle ages;
- small local irrigation and drainage cooperatives ("*Be- und Entwässerungsgenossenschaften*") since the 15th century in *Bavaria*, and later in many other German countries (18th century in *Westphalia*, and a huge number in the 19th century in *Hanover*, *Hesse*, *Prussia*, *Thuringia*, and *Wuerttemberg*);
- regional watershed drainage associations ("*Große Vorflut- und Schauverbände*") since the 17th century, first founded in *Brandenburg*, *Hanover*, *Pomerania*, and *Saxony*;
- amelioration cooperatives ("*Bodenverbesserungs- und Ödlandgenossenschaften*") for the cultivation of badlands, fens and heathens, nationwide since 1914;
- water associations for potable water supply, dam construction, and/or waste water disposal ("*Wasserwirtschaftliche Verbände*"), first established around 1910 in the industrial area *Ruhrgebiet* in today's *North Rhine-Westphalia*.

Notably since the 17th century the institutional development process was more and more affected by the rulers of the at that time numerous autonomous German countries. Since around 1850 they made increasing efforts towards a standardization of formal rules and a clearcut assignment of functions between the state and self-governing bodies, and later on towards an adjustment of the different regional laws. This applied not only to the dike cooperatives, but in fact to the whole range of collective action tasks in managing water and land resources. Driving forces behind this series of institutional changes were some severe floodings and storm tides in conjunction with the fast-growing population, the need for land reclamation and improvement, the development of the monetized economy, the rise of the German nation state, the rapid technological progress in civil engineering with its vast productivity gains, and increasing safety standards. Finally, that process results in the first uniform law, the Water Association Act (“*Wasserverbandsgesetz*”) of 1937, and the nation-wide use of the name “*Wasser- und Bodenverband*” (GOLD-BECK, 1991).

But this act and its accompanying ordinance (“*Erste Verordnung über Wasser- und Bodenverbände, WVVO*”) were badly riddled with Nazi ideology. At that time WaSAs came under tight control of the Nazi government, and local Nazi party leaders strongly interfered with internal WaSA-affairs. WaSA-chairpersons were not elected any longer by the members, but instead appointed by government supervision. In West Germany, the act of 1937 was annulled completely after the Second World War. However, the ordinance WVVO, which was certainly rid of antidemocratic paragraphs, continued to be in force for another period of 46 years (WELLER, 1991). In East Germany, the WaSAs were dissolved in the fifties under the communist government. Their functions were partly assigned on public authorities and partly on inter-farm amelioration cooperatives (“*Zwischenbetriebliche Meliorationsgenossenschaften*”). These were special functional bodies at rural district level, made up of a number of collectivized agricultural cooperatives. After the German reunification the WVVO was replaced with a new Water Association Act (“*Gesetz über Wasser- und Bodenverbände, WVG*”) in 1991. As a federal act it represents law providing guidelines for the 16 *Bundesländer*, which are allowed to adapt the WVG within defined limits according to their different regional needs and traditions. These regulations are the legal basis of the today’s WaSAs (RAPSCH, 1993).

The **current prevalence** of WaSAs is not regularly monitored and a survey of their functional and regional coverage does not exist. Nonetheless, with the informations gathered from a literature review and interviews of their managers it is possible to provide a general overview. The total number of WaSAs in Germany is estimated between 12,000 (RAPSCH, 1993) and 18,000 (WOLFF/KÖNIG, 1997). These represent a diversity of organizational setups, ranging from small, honorary, single-task local entities up to large, full-time staffed, multi-task regional entities and covering different make-or-buy ratios. Among them are multi-layer WaSAs and umbrella unions on

district and *Bundesland* level as well. In general, the regional spreading of WaSAs is subject to the topographic and climatic characteristics of the various *Bundesländer*. It also reflects different political and agrarian traditions. The synopsis above (*Table 1*) gives a rough impression of how WaSAs are spread in the whole country today. Predominantly, WaSAs occur in the northwestern and northeastern lowlands, where they are established to perform a number of different tasks, while the southern and eastern parts harbour a smaller and declining number of WaSAs.

Table 1:
Current Functional and Regional Prevalence of Water- and Soil Associations

WaSA- functions	umbrella union of WaSAs on Bundes- land level	compulsory WaSAs for watercourse maintenance**	voluntary WaSAs for watercourse maintenance	WaSAs for dike maintenance	WaSAs for surface irrigation and drainage	WaSAs for sprinkler irrigation	WaSAs with other tasks ***
Bundesland							
Baden-Wuert- temberg*			X		X	X	
Bavaria*			X		X	X	
Berlin			(X)				
Brandenburg	X	X					
Bremen	+	X		X	X		
Hamburg			X	X	X	X	
Hesse	X		X		X	X	X
Lower Saxony	+	X	X	X	X	X	
Mecklenburg- W.Pomm.	X	X					
North Rhine- Westpha.			X	X	X	X	
Rhineland- Palatine	X		X		X	X	X
Saarland			(X)				
Saxony			(X)				
Saxony- Anhalt	+	X					
Schleswig- Holstein	X	X		X	X		X
Thuringia			(X)				

X WaSAs with this function occur in this Bundesland

(X) Berlin, Saxony and Thuringia harbour only one WaSA for watercourse maintenance each, Saarland has two.

+ WaSAs in Bremen, Lower Saxony and Saxony-Anhalt are united in one umbrella union on Bundesland level.

* Number of WaSAs is declining, i.e. liquidation of existing WaSAs, no more establishment of new WaSAs.

** Area-wide network of compulsory WaSAs for maintenance of 2nd and/or 3rd order watercourses.

*** In Hesse: composting, potable water supply and rental of agricultural machinery; in Lower Saxony: potable water supply; in Rhineland-Palatinate: composting and cattle water feed facilities; in Schleswig-Holstein: wind protection and waste water treatment; in some Bundesländer WaSAs also conduct rural road maintenance and landscape conservation.

Source: own compilation

The functions itemized in section 2 are actually provided by WaSAs only in selective sites at a time. The relevance of mainly agricultural WaSAs for amelioration, irrigation and drainage has declined over the last decades, although in terms of total numbers they still make up the bulk. Most of these WaSAs are comparatively small-sized in terms of membership and territory and they do not employ professional personnel. Whereas the importance of WaSAs for watercourse maintenance has increased since the German reunification. Three of the newly founded eastern *Bundesländer* established an area-wide network of compulsory WaSAs on watershed level, which is existing for a long time in three western *Bundesländer* as well. These WaSAs maintain so-called 2nd order water-courses (i.e. smaller than main rivers and tributaries but larger than ditches and outlet channels) which are determined by the water laws of the *Bundesländer*. These WaSAs are usually much larger than agricultural WaSAs and comprise every plot of land in a certain catchment, similar to WaSAs for dike maintenance which span every plot in the hinterland below a defined contour line.

4. Legal basis, establishment procedure and membership requirements

As mentioned above, the **legal basis** of the Water and Soil Associations is the „*Gesetz über Wasser- und Bodenverbände (WVG)*” of 1991. The WVG provides the statutory framework to establish and operate WaSAs. It prescribes the main features of WaSAs, dealing with its formation, permissible tasks, membership, organs, by-laws, finances etc.. However, as a federal law it allows specific adjustments by the *Bundesländer* according to regional distinctions. In the meantime, 11 of the 16 *Bundesländer* have enacted WVG implementation acts, so-called “*Laenderausführungsgesetze zum WVG*”. WaSA by-laws even allow for further alignment with the specific goals and tasks of a certain WaSA. Altogether, this legal basis appears to be a necessary prerequisite for the success of the WaSAs in organizing and governing collective action. Whereas the WVG as an organization law shapes the WaSA as a governance structure and institution, it contains no substantial regulations governing the individual areas of responsibility. These and the afore-mentioned alternative governance structures are ruled separately.

German WaSAs as public law institutions must be clearly distinguished from agricultural cooperatives erected under civil law. “The experiences of farmers and administrative authorities, however have shown that organisational forms of this kind – under private law – are doomed to failure unless all property owners concerned are able to participate in the decision-making process. The main drawback of this organisational form was that it lacked the ability to implement measures against the will of the individual property owners even when it was their own property that was affected. In addition the legal basis for the payment of contributions and the right to

membership was too weak.” (STEINAECKER, 1998, p.2) As a consequence, the institutional strengthening and upgrading of private sector organizations in water and soil management now constitutes the basis of legislation as expressed in the new WVG.

Virtual WaSAs take somewhat an intermediate, parastatal position between civil and public law (“*mittelbare Staatsverwaltung*”). As an autonomous body under public law the WaSA is a legal person, committed to perform in self-government but under state (i.e. *Bundeslaender*) supervision, collective action tasks in managing water and land resources to serve the public interest and for the benefit of its members (§§ 1, 2 WVG). Under certain conditions landowners can be forced to become members of a WaSA, and within the domain of their specified functions WaSAs can exert mandatory authority on their members (RAPSCH, 1993). Thus the WaSA-members “[...] were now confronted not with the state but with the association itself as the initiator and enforcer of compulsory measures [as internal measures]. Since however the associations are made up solely of all their members, it is the members themselves who, ultimately, initiate the compulsory measures, since it is they who discuss and adopt such measures via the association’s own institutions.” (STEINAECKER, 1998, p. 3)

The list of **possible members** of a WaSA is generally designated in § 4 WVG and comprises:

1. owners or leaseholders of plots, facilities and mine property (members in rem),
2. persons, whose obligations will be relieved or lessened by the WaSA,
3. bodies under public law,
4. other persons, if the responsible authority of the respective *Bundesland* so permits, and
5. the builders of traffic facilities not included under number 1.

To use rights in rem over immovable property, i.e. real property rights is the basic principle of WaSA-membership. It is indicated here by item number 1. So membership is generally linked with property and not with persons (“*dingliche Mitgliedschaft*”). This had been the fundamental idea of the WaSA-forerunners and it was adopted in the present WVG as well. It means e.g., that in the event of a passage of title from one person to another on property seated within the domain of a WaSA, the new title bearer automatically attains the WaSA-membership from his predecessor as well (RAPSCH, 1993). Item 3 has gained in importance since the German reunification. Then the three emerging *Bundeslaender* Brandenburg, Mecklenburg-Western Pomerania and Saxony-Anhalt have established area-wide networks of WaSAs for the maintenance of 2nd order water-courses. Their members are municipalities, which are bodies under public law. The items 2, 4 and 5 more or less represent special cases and are of comparatively little significance. However, the above delineation is fairly abstract apart without further discrimination. Therefore, the 1991 amended

WVG has introduced, unlike the previous act of 1937, in § 8 the term “participants” (involved or concerned parties or persons) as a central concept for the establishment of a WaSA. The term is closely connected with the notion “member”, in-as-much **the status “participant”** demands the availability of potential member-ship as well as the application of the benefit principle, i.e.:

- participants must either expect to benefit from the undertakings of the WaSA,
- or negative impacts from their premises on the WaSA’s activities are likely to occur,
- or they probably have to tolerate measures by the WaSA, if they have been determined to be participants by the supervisory authority.

Crucial here are individually traceable net benefits, respectively impacts. Indeed, in any case the status “participant” has to be ascertained by the supervisory authority of the respective *Bundesland*. From there, it is possible (§ 9) to call upon participants against their will as compulsory WaSA-members (RAPSCH, 1993). An enforcement specifically occurs if a certain property is required to design the territory of a WaSA as a contiguous area of adjacent plots. This is indispensable in particular for the construction, operation and maintenance of dikes, and sometimes for irrigation and drainage schemes. Likewise the WaSAs for maintenance of 2nd order water-courses are made up of compulsory members (“*Pflichtmitgliedschaft*”). Although such an enforcement should be the exception rather than the rule, and in practice actually most of the WaSAs consist solely of voluntary members.

To start the **establishment procedure**, an application by one or several of the participants or ex officio is necessary. A number of documents must be part of it: the plan for the undertaking, a cost estimate, a description of the expediency and financing of the project, draft by-laws, and a directory of the potential participants including data to determine their votes. The application is followed by a public announcement of the proposal by the supervisory authority and a closed discussion process among the participants under the chair of the authority. This leads to several decisions, whether to establish the WaSA or not, on the plan, and on the by-laws (RAPSCH, 1993). Under these circumstances, the WVG differentiates more than one type of establishment of a WaSA (§§ 7, 10), they each are subject to approval by the competent supervisory authorities of the 16 *Bundesländer*. The options are either: establishment

- by a unanimity decision of the participants, or
- by a majority decision of the participants and calling of participants not in favour, or
- ex officio, i.e. e.g. by a particular *Bundesland* act or by a land consolidation authority, if this is necessary in the public interest and a WaSA is expedient to achieve this goal.

The supervisory authority can deny the approval solely for reasons of public interest, especially when the WaSA's tasks being planned can be better accomplished in another fashion, or are yet being or can be accomplished by an already existing institution, e.g. a local authority or an association (RAPSCH, 1993).

5. Membership relations, by-laws and user participation

The salient trait of the German WaSAs probably are their idiosyncratic membership provisions. Irrespective of the elaborated norms, the fundamental idea behind the WVG remains nevertheless, that "[...] the associations had compulsory measures that could be enforced as internal measures against their own members. [...] Thus the water and soil associations became self-administrating [...] under public law." (STEINAECKER, 1998, p.3) The WaSA-membership is a **special public legal relationship** ("*öffentlichrechtliches Sonderrechtsverhältnis*"). It begins as soon as the establishment procedure is completed and the by-laws of the WaSA have been edicted. A constituent of the establishment procedure is the ascertainment of the numbers of votes which account for each party concerned. Voting rights are one of the members' main rights, just as rights to use the WaSA's facilities. The main duties are compulsory contributions, which are a form of public charges, and obligations to tolerate all measures to the extent necessary for the carrying out of the WaSA tasks (RAPSCH, 1993).

The key point here is the general match of the **members' rights and duties** with the individual benefits they shall obtain from the WaSA's undertakings. Hence, an appropriate criterion for benefit is required. Normally, the rights to vote in -the general assembly or to the committee (see section 6.) and the contributions are weighted proportional to the individual member's acre-age. Somewhat difficult is the treatment of participants whose facilities will have negative impacts on the WaSA undertaking ("*Erschwerer*"), and participants who expect no (net) benefit at all, but will be negatively affected themselves by the WaSA undertaking. In the former case the total amount of expenses which will accrue from these participants on the WaSA's account could be the assessment base, and in the latter case the participant's disadvantage shall be the measure for his or her number of votes. Still, in WaSAs with more than two members the number of votes accounting for each member is limited to a maximum of two-fifths of all votes. In all cases an approximate calculation shall suffice (RAPSCH, 1993).

Regarding the contributions in WaSAs for watercourse maintenance an undifferentiated acreage based flat rate is applied, if the differences in benefit among members are relatively small. Otherwise the acreage yard-sticks often will be graded according to different kinds of land use, e.g. housing contributes more than agriculture, and agriculture contributes more than forestry. Several WaSAs sub-divide

agricultural land furthermore, with e.g. polder areas contribute more than other. On the other hand, in WaSAs for dike maintenance the charge assessment basis typically is the rateable property value, and in WaSAs for sprinkler irrigation it is the measurable water consumption. However, any terms like these have to be set in the by-laws, and the general assembly of members of the WaSA is to a certain extent free to deviate from the out-lined principles. So, in practice the rule one-man-one-vote is quite common, and it is not unusual that contributions in kind can replace monetary payments to a limited amount.

The legal conditions of the WaSA and the legal relations to the members of the WaSA are regulated by **by-laws** unless otherwise specified in the WVG or legal relations of the 16 *Bundesländer* (§ 6 WVG). At least the by-laws must contain provisions on the name and seat of the WaSA, its task, undertaking and territory, the membership and membership directory, limits of land ownership and any obligations otherwise incumbent upon the members, principles underlying the assessment of contributions, formation and tasks of the WaSA-organs, association inspection, amendments to the by-laws, and announcements of the WaSA. If the WaSA employs civil servants additional provisions are needed regarding the bureaucratic chain of command. Overall, the right of the members to issue such by-laws (“*Satzungsautonomie*”) is a vital, basic requirement for the self-government of the German WaSAs (RAPSCH, 1993).

As the WVG only refers to “members” and “participants” in the aforementioned manner, one can speak of **user participation** merely in a sense. Land and water users participate in a WaSA if they fulfil the membership requirements and if they are furthermore involved in the WaSA undertaking in terms of benefit and cost. Since the provisions of § 4 WVG connect the membership with real property in the first place, and in this way give clear priority to land-owners over tenant farmers, the latter hardly can attain membership at all, even if they are the day-to-day users of the plots. Still, exceptions exist especially in voluntary WaSAs for sprinkler irrigation and land drainage with tenant farmers as possible members (WOLFF/KÖNIG, 1997). Also, other users can participate indirectly as members of bodies under public law like municipalities, which in some *Bundesländer* are the members of WaSAs for water-course maintenance, or even directly if the supervisory authority so permits (but this barely happens).

6. Organizational set-up

Because Water and Soil Associations are self-governing this implies a corresponding managerial competence and a suitable organizational setup. For this reason particular attention was paid to the organs of the WaSA at the WVG amendment in 1991 (§§ 46 – 57 WVG). As is customary in statutory bodies, the WaSA has two organs, one for

decision-making and one for execution and representation. The decision-making organ normally is the general assembly of all members of a WaSA. However, a committee composed of representatives of the members can be installed optionally instead of the general assembly, if so determined in the by-law (*“Alternativitätsgrundsatz”*). This often occurs in WaSAs with a great many members (some WaSAs in Northern Germany have thousands of members). The executive and representative organ is the board, which is headed by the association president. The board members are active on a honorary basis, albeit they may receive a compensation for the performance of their functions. Optionally, the WaSA may appoint one or several managing directors, which has to be regulated in the by-law as well (RAPSCH, 1993). Moreover, a full or part time salaried staff for administration, engineering, maintenance and so on may be employed also. An exemplarily organizational setup is depicted in Figure 1.

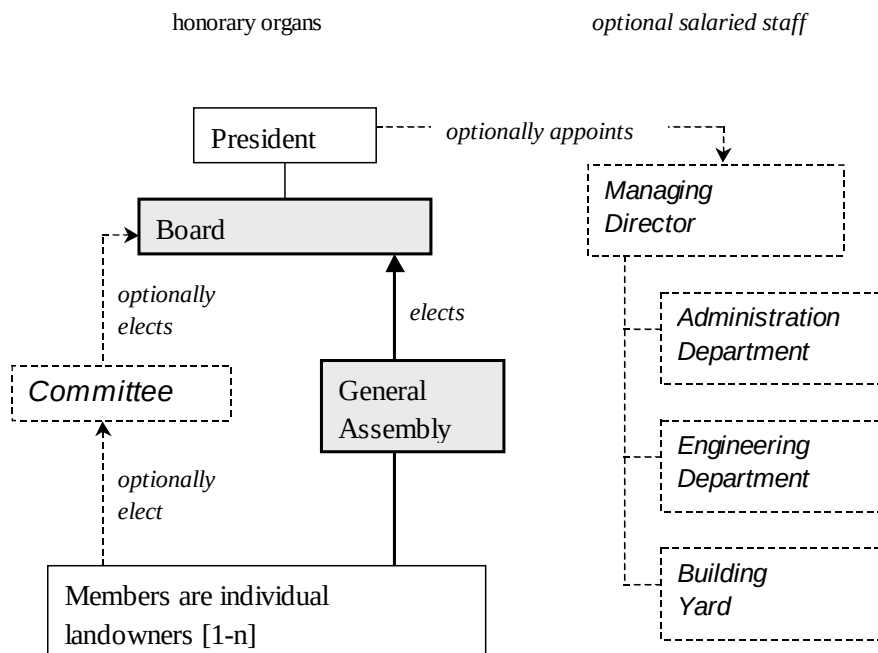


Figure 1:
Organizational set-up of a single Water and Soil Association

The **general assembly** as one of the two mandatory organs of a WaSA has considerable competencies, which are determined in § 47 WVG (the by-laws may provide for further tasks):

- election, recall, and discharge of the board members and their deputies,
- decision-making on alterations of by-law and tasks, on reorganization and dissolution,
- election of inspection agents,
- drawing up of the budget as well as of supplementary budgets,
- fixing of remunerations and principles for service and employment relations,
- counselling of the board in all important matters.

The general assembly convenes as and when required, at least once a year. The meetings are not public and shall be chaired by the association president. In case the WaSA does not have a general assembly, its functions shall be incumbent on an **association committee**. Then the provisions on the general assembly apply accordingly to this committee. The members of the committee (normally about five to ten persons) shall be elected by the WaSA-members among themselves for the periods specified in the by-law, usually a couple of years. (Regarding the voting rights of the WaSA-members in the general assembly and to the committee see above.) Each member of the association committee shall have a vote, whereas the votes count all the same, unless otherwise laid down in the by-law. The association president is chair-person of the committee, but without a right to vote (RAPSCH, 1993).

The **board** as the other of the two mandatory organs of a WaSA runs the association according to the provisions of the WVG and by-law and represents the WaSA both in and outside the court. In principle, all affairs not incumbent on the general assembly through act or by-law are incumbent on the board. It is particularly responsible vis-à-vis the members for ensuring compliance with the by-law and implementation of the decisions of the general assembly. The board may consist of one person – who then is the president of the WaSA – or of several persons. In the latter case the chairperson of the board also is **president** of the WaSA. He or she shall call board meetings whenever necessary, at least once a year. If a WaSA has an association committee instead of a general assembly, the president shall inform the members in reasonable time intervals on the WaSA-affairs. The members of the board and their chair-person shall be elected by the general assembly, if this is nonexistent, by the committee for the periods specified in the by-law, usually a couple of years. Members of the association committee cannot at the same time be members of the board. For important reasons members of the board may be dismissed by the general assembly by a two-thirds majority. (RAPSCH, 1993)

WaSAs have organizational options besides the basic legal requirements. In practice, it depends on the extent of its undertaking, scope of tasks, size of territory, number of members and financial position, whether a single WaSA will engage a

salaried managing director and staff or not. In this respect WaSAs often make use of the possibility to join forces with other WaSAs to make consortium arrangements or to establish **umbrella associations**, which then employ a professional staff (an example is diagrammed below in *Figure 2*). Umbrella associations mostly are purely service oriented and conduct orders of their members (i.e. WaSAs) without any right to interfere with whose affairs (WOLFF/KÖNIG, 1997). Multi-layered organizational structures with linked associations on local, district, and *Bundesland* level can be found also. The main function of an umbrella on *Bundesland* level is advice of its members in legal and administrative affairs, public relations and lobbying in the political arena. Moreover, another umbrella association exists on the national level, whose members are *Bundesland* umbrella associations and some isolated local WaSAs from those *Bundesländer*, where umbrella groups do not exist (see *Table 1*). Umbrella associations also can take the legal form of a WaSA, or another form of organization like a club or an incorporated society. For further diagrammatic examples of organizational setups see the literature (BAREISS/DENGLER, 1994; WOLFF, KÖNIG, 1997 or STEINAECKER, 1998).

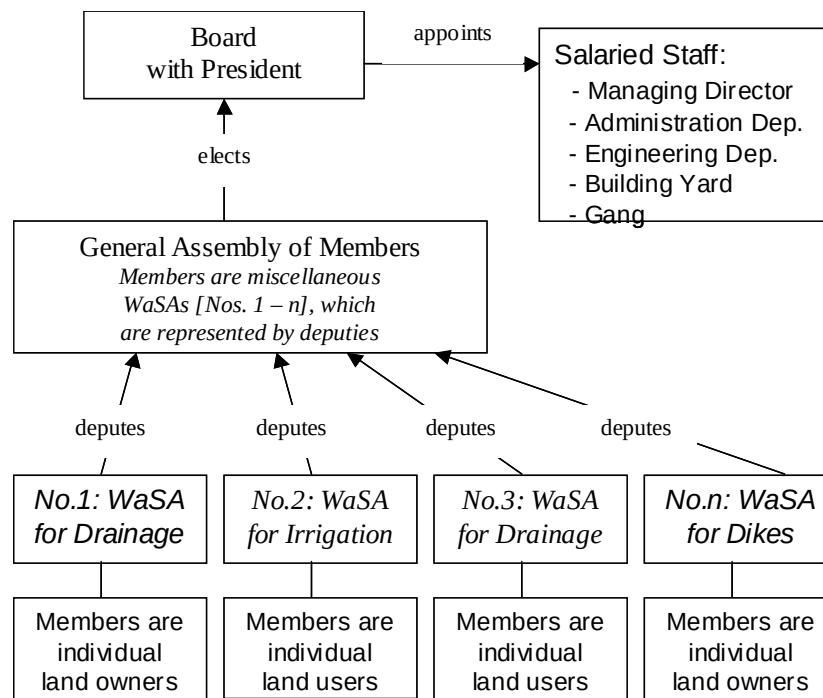


Figure 2:
Umbrella association as organizational alternative

The question to engage a salaried staff infolds a classical management problem, which has to be resolved first: the **make-or-buy-problem**. The general assembly must decide, whether the tasks of the WaSA shall be carried out by internal manpower and equipment, which is sub-ordinated to the board then, or by outside procurement from professional contractors. Moreover, in principle it is possible to carry out the tasks by the utilization of the skills of the many different individuals which make up the WaSA's membership instead of a salaried staff, which in turn means the levy of non-cash contributions instead of monetary payments. In practice, many different make-or-buy-ratios occur, from almost 100 % 'make' to nearly 100 % 'buy'.

7. Financing

The aforementioned organizational aspects are closely connected with financial issues, particularly with the calculation of monetary contributions. WaSAs are obliged to draw up annual budgets according to the respective legal provisions of the *Bundesländer* for non-profit bodies under public law, i.e. simple revenue and expense statements shall suffice (RAPSCH, 1993). Altogether the German WaSAs can count on **different sources** of finances, among them monetary contributions of their members are in the first place. Furthermore, loans (often at reduced interest rates), public investment grants (from the European Union, the German federal government, and/or the governments of the 16 *Bundesländer*), and occasionally miscellaneous other public grants for operation and maintenance activities are available to some extent. It largely depends on the kind of task, the financial programs at hand and the financial standing of the respective *Bundesland*, whether and to what extent public grants will be spent.

At large, the construction of infrastructure with high impact for the general public, e.g. dikes and other measures for flood protection, will be totally subsidized by **public investment grants**. In the past the extension of watercourses fell into this category also. However, as the paradigm shifts towards nature protection and landscape conservation, this hardly occurs anymore. On the contrary, it has been replaced to some extent by the renaturation of rivers, which then is fully financed by government agencies. However, operation and maintenance activities in general have to be entirely financed by the members of WaSAs, i.e. in case of dikes the owners of the protected real properties. On the other hand, measures with low impact for the general public, but nearly to the exclusive advantage of the WaSA-members, i.e. participating individual landowners, usually shall be financed by contributions of the latter without any public grants. Although, until the eighties of the last century the construction of artificial irrigation and drainage systems and rural roads was subsidized with considerable **miscellaneous public grants** too, so that merely low co-payments on the part of the individual beneficiaries, i.e. landowners were required.

In addition, WaSAs usually can draw on long term **loans at reduced interest rates**, which allow for relatively low burdens of amortization to be allocated upon their individual members.

Clearly, the level of rates for **monetary contributions** depends on the availability of public grants and the amount of funds needed. Latter is contingent upon the costs of services rendered, which in turn depends on the type and scope of tasks to be fulfilled by the WaSA on behalf of its members and the degree of economic efficiency accomplished in doing so. The calculation of per-hectare flat rates in single-task WaSAs, e.g. for the maintenance of 2nd order watercourses will be relatively simple compared to the calculation in multi-task WaSAs. In this case usually a mixed calculation will be applied, which is based on a number of separate contribution divisions. Sometimes the schemes are even more sophisticated with an additional spatial gradation to ensure that every member will be taxed according to his or her individual benefit from the respective division (RAPSCH, 1993). Moreover, for certain measures the contributions may be levied according to the costs actually incurred for the individual plots. The by-law of a WaSA may make prescriptions concerning the **payment arrangements** and behaviour. So it is possible to prescribe surcharges on top of the contributions in arrears, or to set advance payments to the extent required by the board for the carrying out of the WaSA's undertaking and its administration. The contributions don't need to be levied by the WaSA itself, but may be transferred to agencies outside of the associations (§§ 28 – 32 WVG).

8. Conclusions

The Water- and Soil Association is a suitable form of organization for the self-government of landowner and user groups in a variety of collective action tasks in managing water and land resources at local and district levels. Though not having analyzed the WaSA in every detail, from the previous sections it can be concluded that it has proven its practical suitability for decades in many instances. In the literature it has even been argued, that the “successful performance” of the German WaSAs “without any major problem” is the reason why “hardly any written material was available” about it, which could be used for the establishment of WaSAs elsewhere (WOLFF, KÖNIG, 1997, pp. 224, 232). The relative success of this governance structure probably derives from a combination of the following reasons:

- the clear and flexible formal rules as provided by the Water Association Act of 1991,
- the guarantee of autonomy of local participant groups under public law,
- the overcoming of the free-rider problem by compulsory membership, if necessary,
- the realization of the benefit-pay-say principle for the members of the WaSAs,

- the fair balance between the rights of the members and the competencies of the board,
- the careful assessment of the individual members' benefits and costs,
- the comparatively broad financial basis, at least in the past, and
- the deep roots in traditional rural norms.

From there, notwithstanding the fact that this governance structure is subject to German law, it could be quite worthwhile to consider the possibilities of a transfer of the organizational know how and self-governance experience of the WaSAs to countries searching for new institutional solutions for a more sustainable water and land management (STEINAECKER, 1998; NEUBERT, SCHEUMANN, EDIG (Eds.), 2002). Furthermore, as they exhibit a rich local knowledge WaSAs may be natural partners in the implementation process of the water framework directive of the European Union on sub-basin levels (MONSEES, 1999). Nevertheless it remains an open question, whether WaSAs perform better than alternative governance structures do. It will be a matter of careful criteria-based comparative institutional analysis to find out their respective assets and drawbacks with regard to the different goals, tasks performed and territorial scopes (MONSEES, 2002).

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