

CHAPTER III
THE ROLE OF THE LEGAL FRAMEWORK IN IMPLEMENTING
WATER RESOURCES DEVELOPMENT PROJECTS
DURING THE SECOND PART OF THE 20th CENTURY

1. Introduction

This book deals with the Indonesian-Dutch cooperation regarding the implementation of water resources development projects in general and irrigation projects in particular during the second half of the 20th century. Almost all authors have a technical background and their contributions are mainly technically oriented. This particular contribution deals with the legislative dimension and it will focus on the legal framework that was developed from the early 1970s with the goal to create a proper legal basis for the planning and implementation of these projects. It concerns the Water Management Act of 1974 and the various implementing government regulations that elaborate on various issues addressed in the act in broad terms only. I also pay attention to the Water Resources Act of 2004 with the goal to outline the new legal framework that was developed in the beginning of the 21st century. My contribution focuses on the following four legal questions:

- 1) Why was the existing General Water Regulation of 1936 (Algemeen Waterreglement 1936) no longer suitable and was the development of a new act necessary?
- 2) Was the new legal framework a real alteration of the previous legislation or was there also continuation?
- 3) What was the role of the new water legislation in the decision-making process concerning water resources development projects in practice? To what extent was the rule of law-principle (embedded in the new act) guiding the practice of the implementation of the projects?
- 4) Why was the development of a new legal framework necessary at the end of the 20th century and what are the main features of the new Water Resources Act of 2004?

The assessment of questions 2 and 3 was only partly possible through document analysis. Therefore, I also interviewed some Indonesian officials who were in charge at the Ministry of Public Works during that time. The persons interviewed, were: dr. ir. Suyono Sosrodarsono[1], mr. (SH) Budiharto[2], dr. ir. Mohammad Amron[3], and ir. Budi Santoso[4].

Furthermore, I interviewed ir. Willem van Diest[5]. All of them have provided very useful information for getting a good picture of the legal questions to be addressed in this contribution with regard to the period 1965 to 1998.

The structure of this contribution is the following. It starts with some general background information with the goal to explain the project development approach in the beginning of the second half of the 20th century (section 2).

- [1] Dr. ir. Suyono Sosrodarsono was the first director-general of the Directorate-General Water Resources, established in 1966. Under his responsibility the DWWR was built up. From 1982 to 1983 he was secretary-general of the Ministry of Public Works, and from 1983 to 1988 he was the minister of Public Works.
- [2] Mr. Budiharto started his legal profession at the Ministry of Public Works in 1963. From 1985 to 1992 he was head of the legal department of the DG-Water Resources. From 1992 to 1996 he was head of the legal department of the Ministry of Public Works.
- [3] Dr. ir. Mochammad Amron started his career at the Ministry of Public Works in 1970. He was involved with swamp development and river basin planning. From 2010 to 2012 he was director-general of the D.-G. Water Resources.
- [4] Ir. Budi Santoso started his career at the Ministry of Public Works in 1982. His work focused almost all the time on river planning and design; in the beginning at the operational level and, from 2005 to 2010, at the management level.
- [5] Ir. Willem Jan van Diest is an engineer from the University of Wageningen. He has worked in Indonesia since 1982. He is still working in the Indonesian water sector, especially in the irrigation sector.

Then the Algemeen Waterreglement 1936 will be outlined (Section 3). This is important for answering the question why the establishment of a new legal framework for the water resources was necessary to guide the implementation of the water resources development projects in that period.

The next section (Section 4) outlines the essence of the Water Management Act 1974 and the corresponding implementing government regulations. It then pays attention to the question to what extent there is continuation between the Algemeen Waterreglement and the new water legislation. Section 5 is about the role of the new water legislation in the decision making process of the water resources development projects in practice. Section 6 outlines the Water Resources Act 2004, developed in the beginning of the 21st century. The closing section (Section 7) sets out some summarizing conclusions.

2. Some General Background Information

For a good understanding of the first three legal questions to be discussed in this contribution, some general background information is of importance. Indonesia became independent in 1945. It was the start of a new era under the leadership of the first President Sukarno. Due to the political instability and the lack of funds rehabilitation of the existing water resources infrastructure (river basins, irrigation systems, dams) and development of new infrastructure was only possible in a limited way. When Sukarno was succeeded by Suharto in 1965 an ambitious economic development program soon started. The First Five Year Plan 1969-1974 (REPELITA 1)[6] was the basis for that program. The funds for implementation came from soft loans from the World Bank,[7] the Asian Development Bank, and other foreign donors. The main goals of REPELITA 1 were food, clothing, and housing. All of these issues needed supporting of water. For that reason, REPELITA 1 had a large water resources development component. “Development” meant both rehabilitation of the existing water resources infrastructure and construction of new water resources structures. The rehabilitation projects were mainly aimed at irrigation systems (810,000 ha under REPELITA 1). The construction of new structures concerned multipurpose dams (and their reservoirs), irrigation systems, and tidal lowland (swamp) projects (particularly) in Sumatra, Kalimantan, and Sulawesi.

3. Algemeen Waterreglement 1936

Answering the question why a new legal framework for the water resources had to be developed in the early 1970s is not possible without having a clear picture of the development, character, and content of the Algemeen Waterreglement 1936 (“AWR” or “Regulation”). Therefore, this section first pays attention to this Regulation. It starts with some information about the development of the Regulation. Then the character and content of the Regulation will be described.

3.1. Development of the Algemeen Waterreglement (AWR)

The AWR was the result of a discussion of more than 40 years about the desirable technical and legal framework for the use and division of irrigation water for irrigation systems and other purposes, in particular the sugarcane industry. Until then, the legal framework had an “ad hoc” character.

[6] REPELITA is the Indonesian acronym for Rencana Pembangunan Lima Tahun, or in English “5 year Development Plan”

[7] The biggest financial support came from the WB. It concerned the so called PROSIDA-program (Projek Irigasi IDA), funded by the International Development Agency in 1969. Within DGWR even a special Project Executing Unit was established to implement the program.

Separate water regulations had been made for the various new big water works constructed by the Dutch engineers[8].

Key discussion points concerned the system of water use and division of water quantities for respectively the newly developed irrigation areas planted with sugar cane and managed by the Dutch planters in relation to the ancient farmer irrigation systems with simple systems as developed and managed by local communities, and furthermore the position of the farmers in the management of the irrigation systems, in particular the tertiary systems.

Note:

Rice is usually cultivated on terraced plots, called sawahs, often designated as “paddies” in English publications, while padi is the Indonesian word for the growing rice plant. The use of the word paddy for sawah often gives rise to misunderstandings. In this article I stick to the Indonesian designations.

Most of the regulations were based on the criterion that quantities of water should be divided in a fair way between the different water users. However, what is a fair division? In practice, most of the regulations provided for a so called “day and night system”. The feature of this rotation system was that the sugar plantations had the right to use water during the day and the farmers could only get water for their sawahs during the night. In a certain way, this system was very efficient because water could be used 24 hours per day, and irrigation of sugar cane is more difficult and in need of proper operation than rice paddy irrigation in which water flows more or less automatically from one sawah to the next. However, in practice this system was often experienced as unfair, because it favored the sugar cane plantations.

Another discussion point concerned the position of the farmers. Could they be made responsible for the management of irrigation within a small irrigation system, or should this be the responsibility of the government agencies (irrigation departments)? Both systems could be found in the water regulations.

However, in general the system that attributed the management responsibility to the irrigation departments, was the dominant system [9].

In 1906, a first step was made to the development of a general water regulation for Java and Madoera. One of the tasks of the then established “Permanent Irrigation Commission” was the adoption of general principles for the division and allocation of irrigation water.

[8] The development of irrigation systems during the colonial period is described in various books, papers and articles. A detailed, more sociology-political oriented picture of this development can be found in the dissertation of Wim Ravesteijn: *De zegenrijke heeren der wateren; irrigatie en staat op Java, 1832-1942*; Delft University Press 1997. An other, more technical oriented book about this issue is the dissertation of Maurits Ertsen: *Prescribing perfection. Emergence of an engineering irrigation design approach in the Netherlands East Indies and its legacy. 1830-1990*. TU delft 2005. Both authors also have provided contributions to the book: *Bouwen in de Archipel. Burgerlijke openbare werken in Nederlands-Indië en Indonesië 1800-2000*; Walburg pers 2004; the English version of this book is: *For profit and prosperity. The Contribution made by Dutch Engineers to Public Works in Indonesia 1800–2000*; Aprilis-Zaltbommel 2008.

[9] Both issues were object of intensive discussion in various articles in: *De Ingenieur in Nederlandsch-Indie*. See for instance the discussion between ir. P.L.E. Happé (champion of the division of the water in fixed proportions and the establishment of water user corporations that develop their own culture plan) and ir. J.H. van Witzenburg, ir. L.J. Polderman, and ir. J.F. Graadt van Roggen who strongly criticized the opinion of Happé. (De Ingenieur in Nederlandsch-Indie 1935/11, page 135-140; 1936/2, page 27-33; 1936/8, page 139-148).

However, the Commission was replaced in 1916 by another Commission with the task to develop technical and administrative provisions for the use and division of irrigation water on Java and Madoera, and the adoption of theoretical principles based on that. In 1925, a Draft Algemeen Waterreglement was available. However, the regulation did not include yet the Decentralization Act 1925, that established far-reaching regional autonomy (also with regard to the management of public water bodies) to the provinces of West Java, Central Java, and East Java. Therefore, the draft AWR had to be revised. A commission under chairmanship of the Director of Civil Public Works started the work in 1931. A final draft AWR was sent to the Volksraad in January 1936 [10]. After a written and then intensive public discussion (mainly about the continuation of the “day and night” arrangement as provided for in Article 12) the AWR 1936 came into force at the end of September 1936[11].

3.2. Character and content of the Algemeen Waterreglement

Starting point for the AWR was the large irrigation task attributed to the provinces in the Decentralization Act 1925. Therefore, the provinces got a strong position with regard to the regulation and management of public water bodies[12].

Besides the Chapter with definitions (Chapter I; Article 1) the issues provided for in the Regulation were the following:

- free use of water for drinking, bathing, washing, and fire extinguishing (Chapter II; Articles 2 and 3);
- use of public water bodies for the irrigation of plantings, and for flushing and domestic purposes (Chapter III; Articles 4 to 25);
- use of public water bodies and construction of works with license requirement (Chapter IV; Articles 26 to 44);
- special duties (Chapter V; Articles 45 to 51);
- closing provisions (Chapter VI; Articles 52 to 54).

The provinces had to elaborate the principles (adopted in the AWR) regarding the water division and water allocation in provincial water regulations [13]. This expressed the decentralized approach of the AWR.

However, such a regulation had only been enacted in East Java in 1939, the province with vast areas for irrigation systems and sugarcane plantations. Such regulations were still under preparation in the two other provinces, when the Second World War began.

The AWR had a wide scope. It did not only deal with the use and division of water for irrigation and other purposes, but it also provided some related issues with the goal to establish complete regulation within possible limits. These issues concerned a) the use of public water bodies and the construction of works with license requirement (Chapter IV), and b) special duties (Chapter V).

[10] Volksraad zittingsjaar 1935-1936, onderwerp 107, stukken 1-3.

[11] Staatsblad 1936, No. 489.

[12] The Dutch term used in the AWR is “openbare wateren”, which mean all sources, water courses and stagnant waters under the authority and responsibility of the government (see also the definition article). Various English terms can be used for that: public water bodies, public waters, or public water sources. I prefer to use the term “public water bodies” in the context of this Regulation.

[13] Article 4.

Thus the AWR was much more than only an irrigation regulation. It also provides a license arrangement for guiding all types of water related activities[14] in, above and around water bodies with the province as the most important competent authority[15]. The license arrangement contained 24 articles; hence, offering a comprehensive and detailed arrangement.

The Chapter about special duties dealt with legal instruments like the tolerance duty and the right to compensation[16].

These instruments were of great importance for the implementation of water infrastructural works, to be effected by the government (as water manager) or a private company in the public interest.

The arrangements of the license requirement and the special duties were of a typical Dutch origin. They were almost the same as corresponding arrangements in water regulations in the Netherlands in that period[17]. The next section will explore the question to what extent these arrangements and the irrigation arrangement were continued in the new water legislation of 1974.

4. The Water Management Act 1974

This section deals with the second question if the Water Management Act 1974 really differed from the previous legislation or that it also provided for (some) continuation. For answering this question properly, the section starts with an outline of the Act 1974.

4.1. Outline Water Management Act 1974

In Section 2 above is explained that after 1966 the Indonesian government developed an economic growth policy, adopted in the First REPELITA 1969-1974. That plan was the basis for the start of a huge program of water resources development projects. Against this background the Ministry of Public Works (the first responsible ministry for these projects) established a new Directorate-General Water Resources (“DGWR”) in 1966 with dr. ir. Suyono Sosrodarsono as the first Director General, who stayed in this position for 16 years until 1982 when he was promoted to Secretary General of the Ministry of Public Works. From 1983 to 1988 he was in charge as Minister.

He had to build up this new department. With only limited technical and legal staff in the beginning there was a big pressure to start the water resources development projects as soon as possible. He told in the interview that he realized that also an adequate legal framework was necessary for the implementation of the new water resources policy. The AWR 1936 was dated for several reasons.

First of all the AWR only applied to Java and Madoera. It had not been implemented throughout Indonesia. Furthermore, the AWR was no longer in conformity with the existent situation. A new legal framework that accommodated the economic, social as well as technological development of Indonesia, was necessary. Dr. ir. Suyono followed an understandable pragmatic way. The new act should be simple and well understandable. The result of that approach was the Water Management Act 1974 (“Act”) [18].

[14] Besides abstraction of surface water and groundwater and discharge of water, all other physical activities in a water body (included the protection zone) required a license.

[15] The province was the competent authority for water bodies under the management of the province. A “regentschap or stadsgemeente” was the competent authority for water bodies under its management. The involved “Regentschapsraad” was the competent authority for desa water courses.

[16] The tolerance duty meant that a land owner/user had to tolerate certain temporary or permanent activities (like surveying, measurements, soil research, and installation of signals). In case of damage the land owner/user had the right to compensation.

[17] See for instance the various implementing government regulations of the State Managed Infrastructure Act 1891 (Wet van 28 februari 1891 tot vaststelling van bepalingen betreffende s’Rijkswaterstaatswerken).

[18] Act 11/1974. The Indonesian title of the Act is “Undang Undang tentang Pengairan”. Dr Suyono told me in the interview that the term “Pengairan” means: water management.

Contrary to the AWR 1936 in which the economic function of water dominates, the social function is an essential principle of the new Act as clearly is expressed in the Articles 2 and 13. That is a direct consequence of Article 33 of the 1945 Constitution referring that water is a gift of God. The legal consequence of this principle is elaborated in the Government Regulation of Water Resources Management 1982. Article 13 of the regulation states that the use of drinking water is the primary priority above all other uses of water. Article 16 stipulates that every person holds the right to use water for basic needs or for his domestic stock. This type of water use is also free of license requirement (Article 19.)[19].

The Act also has a wide scope. All types of water sources fall under the scope of the Act: surface water and groundwater[20], dams, rivers, lakes, irrigation systems, and lowlands (swamps). All relevant issues are addressed in the Act.

The structure of the Act is the following:

| CHAPTER | CONTENTS |
|---------|--|
| I | Definitions (Article 1) |
| II | Nature and Purpose (Article 2) |
| III | Right of Control and Competence of the State (Articles 3 to 7) |
| IV | General and Project Planning (Articles 8 to 9) |
| V | Management Policies (Article 10) |
| VI | Utilization (Article 11) |
| VII | Operation and Maintenance (Article 12) |
| VIII | Conservation (Article 13) |
| IX | Financing (Article 14) |
| X | Penal Provisions (Article 15) |
| XI | Transitional Provisions (Article 16) |
| XII | Final Provision (Article 17) |

All issues are only set out in broad terms. Various articles stipulate further elaboration by means of implementing government regulations. It should be noted that the drafting process of the regulations took a very long time. The first two regulations were enacted eight years later in 1982. It concerns the Government Regulation on Water Resources Management (GR 22/1982; “GR on WRM”) and the Government Regulation on Irrigation (GR 23/1982). It took another 9 years for enacting the Government Regulation about Swamps (GR 27/1991) and the Government Regulation on Rivers (GR 35/1991). The reason for this long process is rather simple. The implementation of the water resources development projects was the top priority of DGWR. The technical staff was focused on that task while the limited legal staff of DGWR was more focused on preparing and examining international contracts with foreign consultants and contractors. Furthermore, it was thought that the new Act and the still existing rules of the AWR 1936 were sufficient for the implementation of the technical projects[21].

[19] It should be noted that an initial impetus to that principle was already embedded in Article 14 of the AWR. That article stipulated that the use of irrigation water for the various purposes has to be applied with taking care of the water supply need for domestic use, for fire fighting, and for navigation.

[20] Groundwater also falls under the scope of the Act, however the authority and responsibility for that water resource came under the then Ministry of Energy and Mineral Resources (EMR). That was a compromise between the Ministry of Public Works and the Ministry of EMR. Regulatory measures with regard to the regulation of groundwater withdrawals were never taken based on Act no. 11/1974. The regulations realised under EMR’s responsibility consisted of guidelines with the emphasis on the technical aspects of the withdrawals. Rules with regard to licensing procedures, etc. were absent.

[21] The Act explicitly stipulated in Article 16 that “all provisions of the existing water legislation not contradictory to this Law shall continue in force as long as, and until new regulations are issued as provided for in this Law”.

A last point of this outline of the Act concerns the river basin approach. It is remarkable that this is already embedded in the definition article of the Act. The elaboration has taken place in the Government Regulation on Water Resources Management 1982 and based on that in a Ministerial Regulation of 1989, that provided for the division of responsibility for the 90 river basins between the central government and the provinces.

4.2. Change and Continuation?

Based on the outline of the Act 1974 the question to be answered now is if the new legal framework really differed from the previous legislation, or that it also provided for (some) continuation.

The outline of the new Act shows that the AWR was still in force until the replacement by the new implementing regulations in the 1980s and 1990s.

With regard to this the Elucidation of the Act states that “the AWR focused on the use of water for purposes mainly in the field of irrigation, without making provision for water resources conservation and development”. Thus, the AWR was seen as mainly an irrigation regulation with the focus on the use and division of irrigation water for the different purposes. Indeed Chapter III of the Regulation deals with this issue. As already indicated in section 3.1 above, this issue and especially the day and night arrangement of Article 12, was seen as no longer in conformity with the existent situation and contradictory to the Act[22]. Thus, this part of the AWR was no longer in force. However, the arrangements in the chapters IV and V about licensing and special duties were still of importance for the operational practice. These arrangements remained in force until the enactment of the new government regulations, especially the GR on WRM 1982. That regulation contains (among others) a comprehensive license arrangement, in which various elements of the AWR arrangement have been reused. The regulation also addressed again the special duties issue in a similar way[23].

The conclusion can be made that the new water legislation shows both change and continuation with the previous water legislation. Maybe the assessment of this question here has resulted in a more nuanced picture about the mutual relation between the old and new water legislation. Continuation and change are closely connected.

5. The Role of the Water Management Act 1974 in the Decision Making Process about Water Resources Development Projects

The third question to be answered concerns the role of the new legal framework in the decision making process about the water resources development projects in the second half of the 20th century.

The first point that requires clearness is the addressing of this issue in the Act itself. The answer is simple. Although one of the goals of the Act is to address water resources development, a project plan regarding the procedure arrangement is lacking both in the Act and the GR on WRM 1982. The license requirement (provided for in Chapter V about Water and water Resources Utilization of the regulation) only applies to water related activities (including infrastructural activities) of water users and not to the water manager (responsible for a water resource) who wants to execute water resources development projects. In practice, an extra-statutory procedure was applied.

This procedure (a guidance for the project managers) was called the SIDLACOM-model, meaning: Survey, Investigation, Design, Land Acquisition, Construction, and Operation & Maintenance.

[22] The Preamble and the Elucidation of the GR on Irrigation 1982 explicitly states this too.

[23] See Article 44 (Chapter XI about Miscellaneous Provision).

After the survey/ investigation/design stage of a project the land acquisition stage started. Dr. ir. Suyono told me in the interview that the construction stage could only start when the majority of a local community agreed with the compensation offered by the Ministry of Public Works being the executing authority of these large projects. In general the viewpoint of the local communities tallied with most of these rehabilitation projects, in particular with respect to the irrigation projects, as the farmers had great interest in the rehabilitation of the systems that were in bad condition. The development of new irrigation systems for the irrigation of already existing rain fed paddy fields also did not cause serious problems, as the farmers were eager to get irrigation water, especially during the dry season. The construction of new infrastructural projects (like large scale dams) needing resettlement of people, was much more difficult, due to a conflict of interests. The down stream located farmers had great interest in getting irrigation water, especially during the dry season. The people who lived in the upstream area (where a dam project had to be constructed) mostly would suffer, because they had to be resettled.

Dr. ir. Suyono told me that 3 dam projects were canceled during the period that he was in charge as Director-General. The Jipang dam in Central Java was canceled in the investigation stage, because the area that would be inundated was already well developed. The Jati Gedeh dam project in West Java was stopped during the land acquisition stage due to big resistance of the local community [24]. The third dam concerned a multipurpose dam in Central Java to which the local people objected in view of the unsatisfactory terms of the resettlement plan. However, later these 2 latter dams were both constructed after the terms of the resettlement package had been improved.

All development projects had in common that the decision making followed a top down approach. This approach has often been criticized in many reports. However, the interviews have taught me that this general picture has to be nuanced a little. Indeed, the projects were central driven, due to the funding system. However, in practice there was also a certain bottom-up approach. In many cases irrigation projects were executed based on proposals of the rice farmers through petitions signed by the farmers concerned.

Before the implementation of new irrigation projects many deliberating meetings (musyawarah) with the farmers and other landowners concerned were undertaken. Their involvement in the design stage was also important, because the tertiary networks would be transferred to the Water User Association after the construction stage. Also dam projects were developed normally based on petitions or requests of rice farmers in the down stream area of the river basin concerned. They also were aware that these multipurpose dams could prevent flooding of their rice fields or at least reduce flood disasters. The communities that would suffer were of course the people living in the area of the planned dam. In most cases such an area was a poor area. Through deliberation meetings and well planned and prepared re-settlements there were often no serious problems, as the new land was better than the people had owned before. Sometimes there was much resistance which resulted in canceling a project as mentioned above.

I can not “judge” well the “ins” and “outs” of the decision making process with regard to water resources development projects. That requires a separate in-depth assessment, which is not a subject of this contribution[25].

[24] Construction of the Jati Gedeh dam finally started in 2008 and is expected to be completed in 2014.

[25] The assessment of the land acquisition process should focus on both the formal legal framework on land acquisition in the public interest and on the implementation in practice through some case studies.

That requires a separate in-depth assessment, which is not a subject of this contribution[25]. Nevertheless it can be concluded that although one of the goals of the Water Management Act 1974 was to address water resources development, a project plan procedure arrangement is lacking in the new legal framework. In practice the extra-statutory SIDLACOM-method was used. This method tried to find a balance between both the public interest and the individual interests. Another conclusion is that the generally applied top down approach of the development projects needs to be nuanced a little. In practice the local communities concerned played a role in the decision making process, especially during the land acquisition stage of a project and sometimes also in the design stage.

6. The Water Resources Act 2004

The last question to be answered deals with the development of a new legal framework for the water resources at the end of the 20th century. What was the rationale of a new legal framework and what are the characteristics of the new legal framework?

One of the main features of the old water legislation outlined in section 4 above, is the project development approach. One of the goals of the 1974 Act was creating a legal basis for the implementation of a huge program of water resources development projects in (particularly) the irrigation sector. Although the 1974 Act had a wide scope (all types of water resources: surface water and groundwater, dams, rivers, lakes, irrigation systems, and swamps) and already introduced the river basin approach, the 1974 Act was effectively heavily sectoral focused. The shift to a more integrated approach started in the 1990s with the development of river basin management plans in Java and some other islands. These plans (in practice also called river basin master plans) did not have a formal legal basis yet. An integrated approach on a structural, long term basis (planning) was lacking in the 1974 Act. It became clear that the implementation of this and other aspects of integrated water resources management (IWRM) required the development of a new legal framework. However, the primary driving force for the modernization of the Indonesian water legislation was the institutional reform after the fall of the Suharto government in 1998. The regime change marked the start of a transition from a centralized government system to a decentralized, democratic and parliamentary government system.

Two decentralization acts of 1999, which came into force in 2001, established the institutional reform that focused on decentralization with far reaching administrative and financial autonomy for the districts[26].

Parallel to the institutional reform, the water sector saw a reform of the dated water legislation. This culminated in the decision to draft a whole new water act in order to implement IWRM-principles. The Water Resources Act 2004 (“Act”) is the result of the reform process.

The Act is an important milestone in the national implementation of IWRM-principles, accepted at the UN Conference on Environment and Development in Rio de Janeiro in 1992.

The most important characteristics of the Act are the following:

- The Act is a true management act. It is not primarily about the development of water infrastructure and irrigation networks, but about creating conditions for a sustainable management of water resources, including irrigation networks.

[26] Regional Autonomy Act (Act no. 22/1999) and in relation to this the Act on Fiscal Equalizing between Central and Regional Governments (Act no. 25/1999). In practice, Act 22/1999 gave rise to numerous questions regarding the objectives and consequences of decentralization. In response, the Government promulgated new legislation on the same subject in 2004: Act 32/2004 and Act 33/2004 (about the fiscal aspects), which replaced the previous acts. The new Act re-established some control over regional government, improved the coordination role of the Governor and also the Governor’s tasks as central government representative.

- The scope of the Act is aimed at water management in all its aspects: surface water and groundwater, both in quantitative and in qualitative terms. Thus, it offers a coherent and integrated approach. The integrated approach also manifests an explicit emphasis on the basin approach. Water systems (river basins and groundwater basins) with their functional relevant environment are the frame of reference^[27].
- Water management is based on a structural, long term approach. For that reason, a strategic plan must be drawn up for every river basin in which all relevant aspects must be considered and weighed in relation to each other. The river basin management plan is the reference for all types of operational activities.
- Local communities and other stakeholders involved in water management are given the opportunity to participate in all stages of the decision making process (public participation).
- The social function of water is expressed in the Act by the stipulation that water use for basic daily needs and for small-scale farmers in existing irrigation systems is free of license and free of charge. The economic function of water is also emphasized. This highlights the fact that water (surface water and groundwater) is a scarce commodity, which in principle has to be paid for (user pays principle and polluter pays principle). Although the government remains responsible for the fair allocation of water for the various social purposes, there is the option of further involvement of the market sector.
- Although the Act has increased considerably in scope compared to the old act, the topics it contains are only provided for in broad terms. The Act is consequently a typical framework act. This approach is in line with modern legislation principles in complex policy areas. The elaboration of the Act has to be done in government regulations and further in ministerial regulations for more technical issues. The decision was made to deal with the different sub-sectors of the water resources in separate regulations. Joining all types of water resources in an integrated way into one government regulation (GR) was not an option at that time.

As per the overview below, most regulations have been enacted.

| | |
|---|------------|
| Government Regulations already enacted | |
| GR on Drinking Water and Sanitation | GR 16/2005 |
| GR on Irrigation | GR 20/2006 |
| GR on Water Resources Management | GR 42/2008 |
| GR on Groundwater Management | GR 43/2008 |
| GR on Dams and Reservoirs | GR 37/2010 |
| GR on Rivers | GR 38/2011 |
| GR on Water Resources Low Land Management | GR 73/2013 |
| GR on Water Use Right | GR 69/2014 |
| GR on Lakes | |
| Government Regulations in drafting stage | |
| GR on Water Quality and Control of Pollution (review of GR 82/2001) | |

^[27] In Section 4.1. is already dictated that the river basin approach was already introduced in the Water Act 1974, but only in the definition article and not yet clear in the Act itself. These omissions were corrected much later, namely in the Government Regulation on WRM 1982.

It is a pity that the drafting process of the implementing regulations took such a long time. This is mainly due to a lack of a real project approach. Apart from that, the decision to elaborate the main issues of the Act in different sectoral regulations, has led to considerable overlapping and unnecessary duplication. This is unfortunate because as a result harmonization between the various regulations is limited and as a consequence will prove confusing in practice. Harmonization and integration of the various regulations will be an unavoidable next step in the process of further improving the water legislation.

A closing comment on the Water Resources Act 2004 deals with the provision in the Act that introduces the involvement of the private sector in the field of water services. This issue was already object of discussion during the drafting process of the Act and it led to a Constitutional Court decision in July 2005. The Court decided that the 2004 Act was conditionally constitutional. Certain conditions, mentioned by the Court, should be taken into account when implementing government regulations.

Yet, the Court noticed that the conditions to that effect had not been complied with, and the Court stated therefore, in its decision of 18 February 2015, that the Water Resources Act 2004 was in conflict with the Constitution 1945. The result was that the Court invalidated the Act. In order to avoid a legal vacuum, the Court decided to reinstate the old Water Management Act 1974.

Consequently, the Ministry of Public Works decided to generate ministerial regulations, which would found the various new government regulations on the Water Management Act 1974, in conformation with the decision of the Court. This will be the case until a new water act has been promulgated.

7. Conclusions

Four legal questions have been discussed in this contribution.

Firstly, why was the existing General Water Regulation 1936 (Algemeen Waterreglement 1936) no longer suitable and was the development of a new act necessary to have an adequate legal basis for the implementation of a huge program of water resources development projects in the second half of the 20th century?

Secondly, was the new Water Management Act 1974 really changing the old legislation or was there also continuation?

The third question was about the role of the new water legislation in the decision making process about water resources development projects in practice.

The fourth question was about the rationale of the development of a new legal framework after the year 2000 and about the characteristics of the new Water Resources Act 2004.

The outcome of the legal assessment set out in the sections above, can be formulated in the following summarizing conclusions:

In the framework of preparing the first Five Year Plan 1969-1974 an adequate legal framework was necessary for the implementation of the huge program of water resources development projects. The Algemeen Waterreglement 1936 was dated for several reasons. First of all the AWR only applied to Java and Madoera. It had not been implemented throughout Indonesia. Furthermore, the AWR was no longer in conformity with the prevailing situation. A new legal framework that accommodated the economic, social as well as technological development of Indonesia, was necessary.

A pragmatic approach was chosen. The new act should be simple and well understandable. The

result of that approach was the Water Management Act 1974 that only contained 17 articles. The drafting process of the required implementing government regulations took a long time. The main reason was that the implementation of the water resources development projects was the top priority of DGWR. The technical staff was focused on that task while the limited legal staff of DGWR was more focused on preparing and examining international contracts with foreign consultants and contractors. Furthermore, it was thought that the new Act and the still existing rules of the AWR 1936 were sufficient for the implementation of the technical projects.

The transition provision addressed in the Act was a welcome provision, because the essence of that provision was that the AWR 1936 (except the irrigation water use chapter) was still in force until the new regulations had been enacted.

The main issues addressed in the AWR concerned the use and division of irrigation water for the different purposes, and furthermore arrangements for the license requirements and special duties. Thus, the scope of the AWR was wider than only the irrigation issue. Nevertheless the Elucidation of the Water Management Act 1974 states that the AWR was dated for several reasons. One of them concerned the irrigation water arrangement. With regard to this issue there was no continuation in the new legal framework. However, that does not apply to the issues about the license requirement and special duties. These issues can be found back in the GR on WRM 1982 in a rather similar way. The conclusion can be made that the new water legislation shows both change and continuation with respect to the previous water legislation. Maybe the assessment of this question has resulted in a more nuanced picture about the mutual relation between the old and new water legislation. Continuation and change are closely connected.

The third question concerned the role of the Water Management Act 1974 in the decision making process about water resources development projects in practice. Although one of the goals of the Act was to address water resources development, a project plan procedure arrangement was lacking both in the Act and the GR on WRM 1982. In practice, an extra-statutory procedure was applied. This procedure, a guidance for the project managers, was called the SIDLACOM-model, which means: Survey, Investigation, Design, Land Acquisition, Construction, and Operation & Maintenance. After the survey/investigation/design stages of a project the land acquisition stage started. In general the viewpoint of the local communities did not cause serious problems with regard to rehabilitation projects of irrigation systems, because the farmers had great interest in the rehabilitation of the systems which were in a bad condition and evidently needed repair. New irrigation projects also hardly met resistance. The construction of dam projects that needed resettlement of people, was a much more difficult item and a project was sometimes stopped due to big resistance of the local community

Another conclusion is that the generally applied top down approach of the development projects needs to be nuanced a little. In practice many deliberating meetings took place with the concerned local communities in the land acquisition stage (and sometimes even in the design stage) with the goal to find an acceptable balance between the public interest and the individual interests.

The fourth question was about the rationale and the characteristics of the new Water Resources Act 2004. Although the Water Management Act 1974 had a wide scope and already introduced the river basin approach, the 1974 Act was effectively heavily sectoral focused. The shift to an integrated water resources management approach (IWRM) started in the 1990s with the development of river basin plans in Java and some other islands. These (master) plans did not have yet a formal legal basis. An integrated approach on a structural, long term basis (planning) and public participation was lacking in the 1974 Act. The Water Resources Act 2004 created the legal basis for the IWRM

approach. The Act is an important milestone in the national implementation of IWRM-principles, accepted at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992.

The Act is a typical framework act. The elaboration of the main issues addressed in the Act has been effected in different sectoral regulations. It is a pity that the drafting process of the implementing government regulations took such a long time. Apart from that, it has led to considerable overlapping and unnecessary duplication. This is unfortunate, because as a result harmonization between the various regulations is limited and as a consequence it will entail confusing in practice. Harmonization and integration of the various regulations will be an unavoidable next step in the process of further improving the water legislation.

It is therefore unfortunate that the Constitutional Court invalidated the Water Resources Act 2004 in its decision of 18 February 2015.

8. About the Author

Bart Teeuwen is a Dutch legal and institutional water specialist and he has been working as an independent water governance adviser since 2006, focusing on legal and institutional aspects of water management. His current activities are mainly focused on supporting water legislation of countries in South and South-East Asia. He started in 2002 with the assistance of the modernization of the water legislation of Indonesia. He supported the drafting process of the various implementing government regulations that had to be developed based on the Water Resources Act 2004.

The experiences in that process were input for the assistance of some other Asian countries (Bangladesh, Bhutan, Myanmar, Vietnam), which started in 2013 under the umbrella of the Asian Development Bank (ADB-UNESCO-IHE Partnership Fund).

The in 2002 started supporting activities were based on years of experience in the Netherlands, first in the academic sector as a lecturer and researcher at the Delft Technical University (1974-1984) and then in the government sector as a legal specialist, manager and water governance adviser at the then Ministry of Transport, Public Works, and Water Management (1985-2005).

For more background information about his legal supporting activities in Indonesia and other Asian countries one can view his website: www.bartteeuwen.com