

TAILOR MADE COLLABORATION A CLEVER COMBINATION OF PROCESS AND CONTENT



UNESCO-IHE
Institute for Water Education



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Facts and Figures

PLANNING

Initiation (Start): 2007

Completion (End):

2015

THE TRIGGER

In 1993 and 1995, the water levels in the rivers were dangerously high. In 1995,

250.000

people and a million animals had to be evacuated.

BUDGET

2,3

billion euros

WORK CARRIED OUT

The Rivers IJssel, Rhine, Lek and Waal were given more room at 34 different locations.

Nine

different methods were chosen.

OBJECTIVES

Safer river catchment areas.

As a result of giving the rivers more room, it will be possible for the River Rhine to safely transport

16.000 m³

of water per second to the sea. That is 1,000 m³/s more than is currently possible (equivalent to approximately 4,000 baths full of water).

More attractive river catchment areas.

Making room for the river is an ideal opportunity to improve the spatial quality of the catchment areas: for example, improving urban and rural development, creating more recreational areas, and strengthening the economy.

IMPLEMENTATION

Provinces, municipalities, water authorities and the Directorate General for Public Works and Water Management (Rijkswaterstaat) are jointly responsible for carrying out the Room for the River Programme. The Minister of Infrastructure and the Environment is ultimately responsible; this responsibility is also shared by the Secretary of State for Economic Affairs.

A short summary

High water level protection for the four million inhabitants of the river catchment areas: that is what the Room for the River Programme is working towards. It is a unique programme because as well as making the areas safer, it addresses spatial quality issues in the areas at the same time; an ideal opportunity to improve them. It is a programme with impact because 150 houses and 40 businesses need to be relocated to make room for the rivers. This calls for careful choices to be made and as much support from the local communities as possible. That is why the government and the regions are working intensively together to come up with optimal solutions. The result is: better plans and fewer chances of delay in implementation. This new approach definitely works. The planning phase is over and the majority of projects are currently being implemented. Most of them will be completed by 2015.

MEASURES



FLOODPLAIN EXCAVATION

By removing layers of soil from certain parts of the floodplains, more room is created for the river when the water level rises.



DEPOLDERING

The dyke on the riverside of a polder is relocated further away from the river. This depolders the area and enables water from the river to flood this area at times of high water.



RELOCATION OF DYKES

By relocating dykes further away from the river, the floodplains become wider, giving the river more room.



STRENGTHENING DYKES

The dykes are strengthened at a number of locations where making room for the river is not an option.



RIVERBED EXCAVATION

The riverbed is made deeper by taking away the top layer of the riverbed. Because the riverbed is lower, there is more capacity for river water.



WATER STORAGE

As a result of the controlled combination of a closed flood gate and large volumes of river water flowing to the sea, the Volkerak-Zoommeer serves as an area of temporary water storage.



HIGH WATER CHANNEL

A high water channel is formed between two dykes. The channel branches off from the river and transports some of the river water via another route at times of high water.



LOWERING BREAKWATER SPURS

Breakwater spurs ensure that the river does not alter its course or lose depth. However, at times of high water, spurs slow down the flow of the water. By lowering them, the water has a better chance of being transported away faster.



REMOVAL OF OBSTACLES

Where possible, removing or redesigning obstacles in the riverbed ensures that the water flows faster.



PROJECT

Deventer: unique combination of land, nature and water management

The IJssel Countryside Foundation was responsible for setting up the unique KeizersRande organic farm on the floodplains of the River IJssel, just north of Deventer. This is a modern, organic dairy farm that economically unites agriculture, nature, ecology and recreation. In addition to the tasks normally carried out on a farm, there are also other responsibilities such as vegetation management on a large scale,

increasing biodiversity, water management and making sure the area lends itself to recreational activities.

In addition to increasing high water level protection, Room for the River has led to a unique combination of activities: a viable dairy farm with vegetation and water management responsibilities.



PROJECT

Lower Rhine: faster excavation of floodplain

The four Lower Rhine projects are unique because of the innovative approach that was taken. The planning and realization stages were the responsibility of one authority. This ensured that issues that would play a part in the realization phase were already being considered when the plans were being drawn up; issues such as ground water streams, implementation of materials, and preparation of the ground during the process of obtaining various permits. As a result, the work was perfectly

streamlined with each part fitting together seamlessly. This of course speeds up the work to be done and also makes it cheaper. The outcome was that the four projects were indeed completed more quickly, without delays, which resulted in less money being spent.

In addition to increasing high water level protection, Room for the River has led to wiser, cheaper and faster contracting and implementation procedures.

PROJECT

Local community participation in the Overdiepse Polder

A particular example of local community participation was the motivation that was shown in setting up the Overdiepse Polder Association that was made up of dairy farmers working in the Polder who were going to be affected by the Room for the River Programme. Together with the Province of North Brabant, they came up with the idea of constructing mounds (terps) in the polder on which they could rebuild their farmhouses. Work was carried out and their farms have now been re-located on eight mounds. Furthermore, their capacity

to grow has not been compromised. If high water levels lead to flooding in the Polder, their farmhouses will still be on dry land. In 2012, the Overdiepse Polder Association was awarded the Water Innovation Prize in the category of Local Interest Organization and Unique Initiatives.

In addition to increasing high water level protection, Room for the River has enabled dairy farmers, on their own initiative, to implement a plan to build mounds for their farms.





PROJECT

Meinerswijk: Arnhem's wild back garden

For many years there were various ideas for dealing with the Stadsblokken–Meinerswijk area but none of them ever came to anything until Room for the River came along. The Municipality of Arnhem included the Meinerswijk floodplain excavations in their overall vision for the region which was drawn up in cooperation with the city of Arnhem. That vision did not just focus on giving more room to the river. The idea was that Meinerswijk would become Arnhem's wild back garden. Cycle lanes and footpaths would be put down, partly financed by the Municipality. The

Province of Gelderland made two million euros available for improving this unique region. It is special because of its cultural history (the Romans, the Limes border, the brick factory, the ASM-harbour, the IJssel Waterline, World War II) and the idea is to bring new life to this area and to highlight its cultural past.

In addition to increasing high water level protection, Room for the River has made it possible for an area that has been ignored for years to eventually become one of the largest floodplain parks of any city in Europe.





PROJECT

Room for the Waal

The Municipality of Nijmegen has taken advantage of Room for the River to give the city a boost. On the northern banks of the River Waal, at Lent, the dike will be relocated 350 metres further away from the river, as a result of which the Waal will not flood as frequently anymore and the waterfront will be safe. A channel to cope with high water will be excavated between the dike and the river which will leave an island between the channel and the river. Relocating the dike gives the river more room which means that the water level will drop in the stretch of river from Nijmegen upstream to the Pannerdensche Kop. In extreme circumstances, the drop in water level could be as much as 35 cms. Spatial

quality will also improve as a result of moving the dike. The entire area will become a river park where nature will thrive and recreational activities will be possible. Nijmegen has linked the river project to plans to expand the city on the northern banks of the River Waal. The new city bridge over the river and the Room for the River project will change the lie of the land. In future, instead of turning its back on the river, Nijmegen will embrace it. In 2011, the plan received the Waterfront Award in New York.

In addition to increasing high water level protection, Room for the River has been a catalyst for urban planning.

PROJECT

Room for entrepreneurship along the water at Avelingen

The Municipality of Gorinchem is carrying out work to excavate a high water channel in the River Merwede at the same time as giving the Avelingen industrial area along the river a complete facelift. The channel will be deep enough for shipping and an extra container park will be constructed along the quayside. This will be a boost for sustainable

river transport. Furthermore, established enterprises will also have more room to carry out their work along the water.

In addition to increasing high water level protection, Room for the River has created sustainable and economic opportunities for entrepreneurs whose business involves water.





PROJECT

Innovative river dyke in Munnikenland

Munnikenland near Zaltbommel: it is an unexpectedly peaceful bit of land in the middle of the Netherlands with beautiful river landscapes and the fairytale Loevestein Castle. It is also an area that lends itself to giving more room to the River Waal. High water channels will be built in the floodplains and the dyke will be relocated away from the river. The new 'Wakkere Dijk' will become the very first multi-functional river dyke in the Netherlands. It will have foot and cycle paths as well as look-out points in places of

historical interest. Munnikenland has a rich history which includes the Dutch (Defence) Waterline. Furthermore it will be a sustainable dyke because of re-use of soil and cattle will graze there to keep the vegetation down.

In addition to increasing high water level protection, Room for the River has made innovation possible in the form of the Wakkere Dijk: a stimulus for nature, culture and recreation.



PROJECT

Noorwaard: living and working in an area that will be under water several times a year

The Noordwaard will be depoldered so that the River New Merwede will be able to flow more quickly to the sea at times of high water. It will also mean more flood protection for the town of Gorinchem. Once the area has been depoldered, it will be under water several times a year. However, farmers and other people who want to continue living and working in the area have been given the option to do that. They will be able to live on existing mounds and additional ones will be constructed. Furthermore, it will not be necessary for them to move during the depoldering works.

A document will be drawn up with an action plan in the case of an eventual evacuation at times of dangerously high water levels. As a result of depoldering, the Noordwaard will revert to its original characteristic landscape with sandbanks, reeds, shallow streams and wooded areas. As many as forty-seven bridges will be built in this beautiful new wetland area.

In addition to increasing high water level protection, Room for the River has made it feasible for farmers and other inhabitants to continue to live and work in the Noordwaard.

Tailor made collaboration

A clever combination of process and content

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Foreword

Room for the River is a programme of which I have special memories. They begin, of course, with images of the extreme high water levels of 1993 and 1995. Two enormous near flood situations in short succession. Statistically highly improbable, and yet, it happened. These events shook us awake, and Room for the River was born.

As State Secretary, I was there from the very beginning. It is, therefore, all the more interesting now, as Minister of Infrastructure and Environment, to hold responsibility. Much has happened since then!

Room for the River is an ambitious programme in which state and region, the government and citizens, businesses and politics all work together towards the safety of approximately four million inhabitants of the river region. Rather than continuing to channelize rivers by building higher dykes in 34 areas in the Netherlands, we are literally affording these rivers more space. As nature had intended, in fact – but with better human direction. As a result, water levels drop and the flow is discharged out to sea more rapidly.

I am a great advocate of building together with nature. In this way, we allow safety and beauty to go hand in hand. Without question, a flood-protected Netherlands takes priority. However, as we work on that protection, let us also closely observe the environment in its entirety. By doing so, we can achieve a safer, more beautiful, and more attractive river region. Take Nijmegen, for example, where, within the framework of Room for the River

in Lent, the dyke has been relocated and a secondary channel excavated. This has resulted in the heart of the city the creation of an island in the Waal River with space for housing, recreation and culture, as well as water and nature. The channel has made Nijmegen not only safer, but the city has also acquired a distinctive impulse with the arrival of an urban island. It shows how a small country like the Netherlands can make a big impact.

The Room for the River approach has generated a lot of international attention. Delegates from across the globe come to our country to view the projects and listen to the experts. Notably, collaboration at varying levels and public involvement, such as residents and businesses are the focus of much attention. We have knowledge and expertise, which puts the Netherlands on the map as a leading 'water land', which is excellent for Dutch companies.

The basis, however, is in our own country; we're not there yet. Decisions have been taken on all the projects, and the emphasis is now on implementation. All the knowledge, creativity, and the ability to work together are desperately needed to meet the challenges that we face. The importance is substantial: a safer and more beautiful Netherlands for now and in the future. I wish everyone much inspiration!

Melanie Schultz van Haegen
Minister of Infrastructure and the Environment



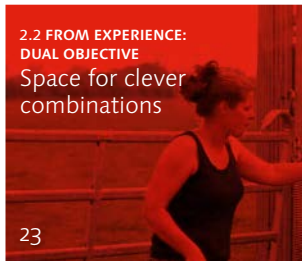
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problems are detected
early.'

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trust each other and help
each other, you can come
a long way.'

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ultimate democracy
of knowledge.'

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that some rightly
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'Success is shared
by many.'

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'With Room for the River
you can see that there's
clear vision within
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'Continue to insist on
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'We live and work along
a river from which we
must protect ourselves.'

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'My cows will soon keep
the grass in the floodplain
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'There appeared to be
a lot of possibilities and
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Introduction

The versatile Room for the River

Room for the River, the largest water construction project since the Delta Works, is at the stage of implementation. The programme was started in 2007 and all 34 projects are now being executed. The planning and design stage has passed and the phase of realisation and rounding off has come. Almost all projects will be completed in 2015. All the more reason to stand back and take note of all the hard work done behind the scenes; on how a stack of papers with the title 'Key Planning Decisions Room for the River' has been transformed into 34 dynamic projects, each with its own history.

Naturally, the enormous amount of work involved in moving earth is what catches the eye the most. And the many gatherings of all those involved has also not gone unnoticed. However, considerably less visible is the steering of management processes in order to accomplish the 'dual objective' of the programme, and to streamline cooperation with stakeholders.

Scientific evaluation

This booklet allows us to see how management of the programme has developed and, in particular, which factors have played a role in its success. Also three scientists, Prof. Jurian Edelenbos (Erasmus University, Rotterdam), Prof. Ernst ten Heuvelhof (Technical University, Delft) and Dr. Michiel Kort (Erasmus University, Rotterdam / Technical University, Delft) give their personal view to the unique character of the Room for the River programme.

They focus on the central position of the operational and institutional cooperation and implementation of the programme.

This publication has been realised in collaboration with UNESCO-IHE. The integral approach of the Room for the River programme has been evaluated by a team from the UNESCO-IHE Institute for Water Education, comprising of Prof. Chris Zevenbergen, Prof. Richard Ashley, Sebastiaan van Herk and Jeroen Rijke. Alongside their contribution to the content, they formulate Building Blocks for integral water management on the basis of the scientific evaluation of the programme.

History

A short history of the Room for the River programme makes clear how water safety and landscape management in the river region had slowly merged. Besides which, the

Department of Waterways and Public Works, Rijkswaterstaat, realised that continuing to build higher dykes was not the long-term solution. When the extreme high water levels of 1995 led to a massive evacuation, the time had come for a different approach: river widening. Constant channelizing of water made way for living with water. Water was no longer restrained in a straight jacket. On the contrary it was given more space.

As the first large scale programme, Room for the River brings forth a new adage: 'Building with Nature'. Images are evoked of polders with farms set up on mounds, and the installation of secondary channels in the floodplains.

From experience

River widening has a major impact on the use of the land, and the spatial quality of the landscape, nature and culture. That is why Room for the River is not carried out as an isolated hydrological project. During explorations, planning, and realisation, there has been close collaboration with the high level representatives from the regional governments and stakeholders. Per theme, key players bear witness to the unique experience of this 'multi-level water governance'. From politician to contractor, from mayor to farmer, from project leader to Chair of the Water Board, their stories provide insight into how this major infrastructure programme has remained largely within budget and time planning, and how the dual objective of water safety and spatial quality opened the door towards better plans.

International interest

Room for the River is an exceptional approach and has not gone unnoticed abroad. Hydraulic engineering experts and high level representatives from national and regional governments worldwide come to the Netherlands to witness, in particular, cooperation between various governments. Although situations abroad differ, 'The Dutch Approach' has a clear export potential, and a similar programmatic method can greatly reduce flood risk in other parts of the world.

The future

The last chapter is about the legacy of the programme. In a few years the last project will be completed and Room for the River as a programme ends. Work on flood protection along our great rivers, and the rest of the Netherlands will, however, continue. The Flood Protection Programme and the Delta programme will most certainly make use of the Room for the River experience.





1

Background

Water management in motion

The Netherlands has a long tradition of flood protection. As from approximately 1100 AD, man has altered the river courses of the Rhine and the Meuse to enable habitation on the low-lying, fertile grounds along the river branches. Since that time, the river basin has increasingly come under pressure due to agricultural and urban development. To ensure safety, the dykes have been repeatedly reinforced. The last major project was the Delta Works, which was a response to the floods of 1953. This particular approach to water management is often described as 'The fight against water'.

Since the 1970's, the approach to flood protection has slowly changed. With the increase of global weather extremes, and a growing awareness that nature cannot be entirely controlled, a new approach has come to the fore, namely: 'living with water'. The functional planning division of the Netherlands into three colour coded zones: blue (water), red (built), and green (nature), has been enriched through this integral approach. Space in the Netherlands is too scarce for only one function. This also involves water protection. Alongside flood protection, we also try to limit the consequences of floods. Furthermore, it provides opportunities for recreation, nature and agriculture, and even for building, e.g. floating homes.

Restoration of river system

The 'Third Policy Document on Water' (1989) gave for the first time, explicit attention to integrated water management and provided

the previously published, 'Ooievaar' (1986) with a national policy framework. This plan describes the restoration of the whole river system and the redesign of the floodplains as a nature area. With the preparation of new dyke reinforcements, opportunities were closely looked into to increase water safety in combination with strengthening landscape ecology. Rijkswaterstaat, local governments and conservationists came together more frequently.

Growing opposition against dyke reinforcement

Opposition to dyke improvement goes back to the 70's, and by the late 80's it had not diminished. Resistance increased focus on scenic, cultural and natural values in water management. The government gradually realised that there were alternatives for dyke reinforcement. The Bomendijk in Zutphen, for example, was given a dam wall so that, of

the 1900 trees, only 19 needed to be removed. Dyke reinforcements are increasingly carried out in conjunction with the establishment of nature reserves. Similarly, in its study, 'Living Rivers' the World Wildlife Fund recommended the digging of co-current flowing side channels in the floodplains in order to decrease high water levels, while simultaneously creating new nature. To get these projects off the ground, intensive collaboration with various governments and interest groups was needed.

River widening

Keeping these changing conditions in mind, the then Ministry of Transport and Water Management went in search of new measures. This occurred soon after the river region was rescued just in time from a great flood in 1993 and 1995. Because of impending threat, a quarter of a million people and a million head of livestock were evacuated. The quick succession of these events made a deep impression.

As a direct response to this near flooding, the existing weak areas in the dykes were reinforced. However, with every height increase of the dykes, the realisation grew that flood risk could also grow. In the event of a break in the dyke, water would surge through with a powerful force, resulting in a greater number of casualties and more economic damage than previously. The ground behind the dykes subsides, where during the course of the years construction has increased. Water level reduction is, therefore, the new aim. By giving the rivers more room, they rise at a lower level against the dykes and flow faster into the North Sea. Following the high water occurrences, exploratory work was carried out to discover whether allowing the river more room was a tenable solution. This created a structured collaboration between all governments and interest groups. The exploration engendered

KEY PLANNING DECISION

Prior to implementation of the Room for the River programme, a Key Planning Decision was taken (referred to in Dutch as PKB). It is a decision whereby the government makes its intentions in the field of spatial planning known. It can concern a memorandum, or indeed a concrete project. After pre-publication, a consultation procedure and handling in Parliament, the PKB Room for the River was formally put into operation on 26th January 2007.

a sense of interdependence in redesigning the river for all parties involved. It led to a breakthrough in the process where the Room for the River approach could later build on.

Programme approach

In preparing the Key Planning Decision (PKB) alternatives were discussed on regional level with all partners, of an approach consisting of several river-widening measures that would jointly increase the flow capacity while simultaneously improving spatial quality. This occurred in close collaboration with the region, which was asked by the State Secretary to advice on how to determine Room for the River. On behalf of the ministries, Rijkswaterstaat (Department of Waterways and Public Works.) drew up the PKB. It not only concerned the development of nature areas, but also dealt with economic progress, such as the construction of new residential areas, recreational possibilities, and even the creation of additional business. In this process, Rijkswaterstaat and the region have mapped out and discussed with local authorities 700 level-lowering measures.

This number was eventually reduced to a coherent package of 39 measures. Because the planning study revealed that more vigorous implementation could be applied to certain projects, 5 projects were deemed unnecessary and the total came to 34.

With the development of measures into project plans, the dual objective: Flood Protection and Spatial Quality, made it possible to include regional interests.

Via the legal procedure of the PKB, the three Ministries – the former Ministry of Transport and Water Management, Ministry of Agriculture, Nature Management and Fisheries, and the Ministry of Housing, Spatial Planning and the Environment – worked together on one plan that gave interpretation to room for the river, and the improvement of spatial quality in the river regions.

Successful collaboration

After being dealt with in Dutch Parliament, the PKB entered into force on 26th January 2007. The Room for the River programme office was assigned the task of completing all projects by 2015 at the latest, and within a budget of 2.3 billion euros. This initiated successful collaboration between politicians, businesses, residents and civil servants.

A tribute to administrative cooperation

Three scientists, Prof. Jurian Edelenbos (Erasmus University Rotterdam), Prof. Ernst ten Heuvelhof (Technical University Delft) and Dr. Michiel Kort (Erasmus University Rotterdam / Technical University Delft) offer their personal view of the unique character of the Room for the River programme. In the text below, they particularly focus on the central position of the administrative collaboration in the establishment, and implementation of the programme.

Collaboration within Room for the River has been shaped by an intelligent interweaving of operational, institutional and constitutional cooperation at central and decentralised level of government. That includes the private sector. In principle, the Ministry of Infrastructure and the Environment, with the Minister and Secretary of State, carries responsibility for flood protection along the major rivers. However, local authorities, such as municipalities, provinces and water boards, must also accept responsibility for the development and realisation of projects in specific locations. This 'multi-level water governance' has been given a central place in the Room for the River programme. Not the development of a set of isolated projects, but the development of so-called, 'baskets of projects'. The projects combine to form a larger whole, and are matched in order to make the region secure, liveable, and vital. Room for the River is a coherent package of measures connected by one

level of flood protection, one programme budget, and one Room for the River programme office. Cooperation also means that public, private and social domains become attuned to each other. The government has not reviewed all resources available to guarantee water safety. It relies on both the private and social domain. Companies have innovative strength. Social actors and private individuals have the necessary local knowledge, and can offer social support to the projects. The projects in the Room for the River programme focus on, 'multi-domain cooperation'. Consider, for example, the Noordwaard and the Overdiepse Polder, where agriculture and recreation, nature and water safety are seen together.

Interweaving of knowledge and effective cooperation

Projects in the Room for the River programme are of a technical nature and, at the same time, also require effective cooperation between the different levels of government. That demands collaboration between civil engineer experts

and high level representatives from national and regional governments in such a way that knowledge and policy are interlinked. In order to render knowledge useful and relevant for decision-making, the 'interface' between high level representatives from national and regional governments and experts should be organised.

Projects and programmes on the interface of water and spatial development are costly and demand project work focused on scope, money and time. But assurance of quality demands more: it's also about process aspects such as social and administrative support, synergy and innovation. It means that efficiency, innovation and legitimacy are linked and together lead to a higher quality that only, and exclusively, via a project or process rationality can be realised. Collaboration, therefore, is a combined project and process approach.

Cooperation implies doing much simultaneously and in continuous synchronisation. The programme office has invested a great deal of energy in organising this plurality. Just try to comprehend such an enormously complicated implementation. And yet, it has worked. The success of Room for the River is due, not in the least, to well-organised collaboration.

Three aspects crucial to cooperation:

1. *A coherent programme with customised projects*
The projects are not 'one-size-fits-all', but rather 'tailor made'. That not only applies to the content of the projects, but is also needed for the project's distribution of responsibilities. For the execution of content within the projects and the region, the programme allows substantial leeway. However, to continue giving that space is not easy, and has, at times, proven difficult. Management of a large variety of projects as a coherent programme demands a great deal of creativity.

2. *Reconfirm agreements*

The programme has a long duration. This means that agreements made over time fall into the background or even disappear into oblivion. The trick is to find a way to keep these agreements on the agenda, preferably by reconfirming them subtly, and without insistence. Confidence in the programme is thus created, and projects are developed and implemented in the spirit of what has been agreed.

3. *Move from viewpoints to interests*

Focusing on interests, rather than on viewpoints simplifies collaboration. On the level of interests, more room exists for consensus and commitment. Conditions that enhance mutual trust should be created to move from viewpoints to interests.

Organising plurality

Of this, we wonder what the common denominator is. Is a fashionable concept such as 'alignment' – the building and maintaining of lasting relationships – the key to success? Or is the willingness of project managers to allow programme interests to prevail above the interests of their own project a decisive factor? In our opinion, it's equally important that managers create and foster conditions under which different opinions are being shared and taken into consideration. As a hybrid. By allowing space for alternative interests and retrieving space for collaboration progress is made. Room for the River means room for cooperation.



2

2.1 FROM EXPERIENCE:
LARGE SCALE INFRASTRUCTURE PROJECTS

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EDIE BROUWER

'Success is shared by many.'

MARCEL HERTOGH

'With Room for the River,
you can see that there's
clear vision within strict
boundaries.'

JOS VAN UDEN

'With good contact problems
are detected early.'

2.1 From experience: large scale infrastructure projects

On time and within budget?

The Room for the River programme is on track to accomplishing the protection of four million residents of the river region, almost as agreed in the assignment. Included, is the improvement of the spatial quality of the river region, the second objective. On 30th June 2012, a project decision for 25 measures (86 percent of the production budget) had been taken, and the realisation phase had begun. The expected cost of 2.15 billion euros (30 June 2012), fall within the original estimate. For a programme in excess of 2 billion euros, whereby many public parties are involved and, therefore, where many and sometimes conflicting interests take part, it is an achievement not to be underestimated. This conclusion is drawn from the 3/4 Evaluation Room for the River by Andersson Elffers Felix (March 2013).

Often overruns

With large infrastructure projects, overruns in time and budget often occur, nationally and abroad. Research indicates that, of the examined 258 major European infra projects conducted in the period 1990 – 2010, 90 percent had budget overruns averaging between 20 to 40 percent. Many also underwent hefty delays. For example, because at some point one of the stakeholders objected to the project, whereby the contracting party was forced to take costly additional measures and/or initiate lengthy legal procedures of appeal.

Satisfaction

Those involved in the programme are generally satisfied with the Room for the

River process, and its results. Various evaluations indicate this. Three of which are the 'mid-term' evaluation that Berenschot and the Erasmus University carried out in 2011, the scientific evaluation by UNESCO-IHE in 2012, and the three quarter review by Andersson Elffers Felix in 2013. Feedback from the majority of stakeholders with regard to collaboration ranges from 'satisfied' to 'very satisfied'. Equally, the programme as a whole is positively assessed. This satisfaction is not limited to representatives from the high level representatives from national and regional governments and professionals. Nature conservation organisations, residents and businesses are also involved in the programme. The strength of the concept lies in working together on a safer and more

UNESCO-IHE

The UNESCO-IHE Institute for Water Education in Delft is the knowledge and training centre for water of UNESCO. It offers MSc and PhD programmes and customised training for professionals from developing countries. UNESCO-IHE works in alliance with knowledge organisations worldwide. The institute is partly funded by the Dutch government, which regards it as one of the instruments for the achievement of the Millennium objectives. Since 1957, the institute has built an international network exceeding 15,000 alumni in more than 160 countries.

beautiful river region. Sight is not lost, however, on the fact that for the residents in the project areas these are extremely drastic measures. Now that the initial projects are completed and the results visible all concerned act as agents promoting its success.

Three main reasons

The positive results of the Room for the River programme so far are due to a combination of factors. In the first place, there was a sense of urgency following the high water levels of 1993 and 1995. There was broad support for the increase of the flood protection of our rivers. Also of importance is the intensive cooperation between the State and the region, as well as recognising the value of local support – acknowledging one another's role and interests. Finally, the adaptive programme management approach has made a huge contribution to the success of Room for River. Where needed support was adjusted and delivered in an effective manner.



**EDIE BROUWER,
DIRECTOR OPERATIONAL
MANAGEMENT,
PROGRAMME OFFICE,
ROOM FOR THE RIVER
PROGRAMME**

Edie Brouwer has been part of the Room for the River programme office since the beginning of 2007. As a member of the programme office, he is responsible for programme control, business operation, real estate acquisition, market procurement and tendering of Room for the River.

HIS STORY "One of the significant factors in Room for the River's success is that we have had such a colourful personality as Ingwer de Boer as programme director. That personal success factor has also been mentioned in independent studies. He was given access at the high level representatives from national and regional governments where others were refused. Solid planning and the 2005 PKB budget have also contributed to the success.

I don't know if this is the only explanation for the fact that the programme is so nicely on

'Success is shared by many.'

schedule. Success is shared by many. Politics decreed that flood protection had to be regulated as early as 2015 instead of the then planned 2018, which was thought of as being more realistic. As a consequence, the programme could be put under pressure, making way for an innovative approach of parallel working, risk management, and competency management.

The dual objective laid down in the PKB, has also helped us with social acceptance and spatial integration of the measures. We have had to develop social intelligence and partnership on all levels and in all roles, in order to forge alliances with water boards, provinces and municipalities. Along the way, a receptive attitude has emerged for improvement and acceleration options. Thereby, we offered a helping hand and were able to facilitate local authorities, preventing any immediate antagonism from opponents. Social intelligence was, therefore, equally as important as technical know-how and process knowledge.

As the programme office, we have always strived for products of high quality. This is based on the conviction that, by doing so, the prevention of future problems is ensured. We also steered towards budgetary adaptation and sticking to schedule. With regard to the interests of the citizens who yield for the safety of four million fellow citizens, the operative word is care. Thus far, no plan has been returned by the State Council – the zoning plan is irrevocable in more than 70 percent of the construction budget. Of the more than 500 property dossiers, 84 have been purchased to date, and in only five cases has it come to expropriation. *'A fruit-bearing tree is known by its flowers'*. By being reliable and always delivering good quality, a foundation of trust is laid."



**MARCEL HERTOGH,
PROFESSOR OF INTEGRAL
DESIGN AND CIVIL
INFRASTRUCTURE
MANAGEMENT, TECHNICAL
UNIVERSITY, DELFT**

Professor Marcel Hertogh from the faculty of Civil Technique at Delft's Technical University, is a specialist in large infrastructure projects. He obtained his PhD with a study comparing large Dutch infrastructure projects with those of Switzerland and Great Britain.

**'With Room for the River
you can see there's clear
vision within strict
boundaries.'**

HIS STORY "Certainly, in terms of budget control, the Room for the River programme is, by European standards 'the Best Practice', given the approach, and the results achieved. I see a balance between, on the one hand, steering towards progress and control of all relevant operational issues and, on the other hand, keeping a keen eye on governance structures, processes and the stakeholders. My research shows that with projects such as these, so much is at stake. If anxiety sets in, the project organisation often goes into cramp and the focus turns inwards. That almost always leads to bad results. Social resistance arises followed by delays, which ultimately lead to decisions for more costly alternatives to be taken.

With Room for the River, you can see that there's clear vision within strict boundaries also for all stakeholders. The process procedure with the environment is, indeed, focused on added value. Towards interest groups, there is in essence a rather open attitude so that they can fit into the given framework, whereby flexibility also exists to do something extra. This has proven successful.

It is unique that local needs and aspirations are linked to the flood protection issue. The relinquished autonomy of various projects is also noteworthy, though well monitored by the programme office. In case problems did occur the programme office assisted the project teams in overcoming them."



PROJECT MANAGER CONTRACTOR VAN OORD

Jos van Uden is Project Leader at Van Oord Netherlands. Within the combination of contractors, Van Oord-GMB and Van Oord-GMB-Oldenkamp, he is responsible for project management of the projects, Overdiepse Polder and Munnikenland. On behalf of the contractors, he is assigned responsibility for time, budget, and communication.

'With good contact problems are detected early.'

HIS STORY "Looking back on the Overdiepse Polder project, it functions well. There was continuous consultation with the residents in the polder. They were timely informed of work to be carried out, and about amenities made available to minimise nuisance. Through this clear communication and making contact, problems are signalled at an early stage. That's for me the main reason why the Overdiepse Polder is proceeding hitherto according to plan, without delays, and without significant additional costs.

By involving residents early in the implementation stage, we were able to build a good relationship, which was very important. They had to deal with massive earthworks involving excessive and continuous heavy traffic. People often understand the need for the work being carried out, however, by catering to their involvement in the smaller details you gather more support. Both client and contractor benefit greatly from this kind of interaction. Such an approach may take a little more effort, but the rewards are there. In the past I've experienced the consequences of ignoring the environment. People were dissatisfied and worked against you, which resulted in no work being done at all.

We also have the Munnikenland project in progress, and have taken advantage of the lessons learnt from the Overdiepse approach. We have, for example, employed a manager who is tasked with providing support and information to the residents if required. It's always those tiny details that we can be blind to, and the very ones that can create resistance from the environment."



2

2.2 FROM EXPERIENCE: DUAL OBJECTIVE

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GERT VERWOLF

'If you invest together, trust each other and help each other, you can come a long way.'

CO VERDAAS

'Continue to insist on the importance of the story's common interest.'

PIET IJSELS

'We live and work along a river from which we must protect ourselves.'

ANNETTE HARBERINK

'My cows will soon keep the grass on the floodplain short.'

2.2 From experience: dual objective

Space for clever combinations

River widening on the scale of the Room for the River programme, and the chosen approach has broken a trend. A quickly growing realisation emerged that with river widening and the earthworks that accompany it, could lead relatively simply to new areas of nature. Or that valuable areas of the existing old landscape could be strengthened.

Space where possible, dykes where needed. These arguments weighed more heavily in the political decision making than in the arguments with critics who argued that the traditional approach of strengthening the dykes had been successful for centuries. And that it was not proven that river widening would yield better or cheaper results. A Central Planning Bureau (CPB) study in 2005 concluded that the Room for the River programme was necessary and valuable, but that dyke reinforcement at certain locations would be a cheaper option than river widening. Nevertheless, the CPB regarded the programme as a worthy investment. It would lessen flood damage, and would be potentially beneficial to society.

The uncertain technical state of our dykes could, above all, have led to surprises and cost increases such as those of the Flood Protection Programme. River widening has also set an example for our neighbours upstream. European legislation has been created and, amongst other countries, Germany now embraces river widening, whereby the Netherlands no longer receives

further high water discharge. The then politicians had the courage to support this change and to approve a package of 39 river widening projects in 2006. A few projects were implemented more vigorously allowing 5 projects to be discarded, bringing the total to 34.

Responding to change

Due to the economic crisis, the financial resources are limited. Therefore, a need arises for more transparency and austerity. This is emphasised by politics. Following the 2010 elections, the construction or the creation of new nature was seen as a luxury, and attention was directed towards the preservation of farmland. Room for the River has responded to these changes by making visible, which agricultural areas remain, and what opportunities farmers are given within the programme. Together with the farmers, they would seek appropriate solutions for preserving agricultural land, and strengthening healthy farming operations. Building on mounds, and agricultural nature management being two options.



**GERT VERWOLF, FORMER
CHAIR OF THE VELUWE
WATER BOARD AND
DIRECTOR AT
RIJKSWATERSTAAT**

As former member of the Executive Board of Public Works, Ger Verwolf was present at the cradle stage of the Room for the River programme. From The Hague, his involvement at the onset was one of 'top down', later he became Chair of the Veluwe Water Board and remained strongly involved in the programme. Now participating 'bottom up'.

**'If you invest together,
trust each other and help
each other, you can come
a long way.'**

HIS STORY "When I was still part of the executive board of Public Works, it seemed to me that the procedure of state projects was more preferable than a cumbersome Key Planning Decision procedure, especially because I wanted to address it from a sense of urgency. Yet, it became a PKB where more than six years have elapsed. Far too long, actually. However, due to the excellent work of the programme office, the fact is that almost all the projects will reach 2015. And that six years has been utilised generating huge support, has brought me much satisfaction. The status that the provinces have gained with the PKB, has led to steadfast commitment, clever combinations, and speedy implementation.

One example is the IJsselsprong project at Zutphen, where the county has taken the initiative, together with three municipalities and the Water Board, to tackle two dyke replacements. Jointly, they came to one plan within which housing, road infrastructure, and a green buffer are encompassed. That collaboration has improved quality, and increased the chance of success. It was a complex task, but I noted that if you invest together, trust each other, you can come a very long way.

I have also experienced that the closer you get to the citizen, the more are the demands made on landscape, nature and recreation. By involving them already in the planning phase, extra inexpensive facilities can be arranged, such as the construction of a cycle path. Such actions engender support. At a later stage, any adjustment would prove to be more costly. It's a success formula that can also be applied to the Delta programme."



CO VERDAAS, FORMER PROVINCIAL EXECUTIVE GELDERLAND

As Provincial Deputy in Gelderland province, Co Verdaas was involved with Room for the River for six years. During his first term, he was especially implemental in drawing in the subproject, Waalweelde. This pleased him so much that in his second term, he was assigned the complete Room for the River dossier.

'Continue to insist on the importance of the story's common interest.'

HIS STORY "The idea behind the Waalweelde project was to render the Waal River from Arnhem to Zaltbommel safer, more attractive and economically stronger in a single attempt. It released a great deal of energy and creativity. As Provincial Deputy alone, you simply could not image something like that. It came from the community itself, from a deep sense of: it's our river, and we want to do it ourselves.

I saw myself as a process agent whose task was to guarantee the ideas, and to keep giving stakeholders the feeling that they are co-owners. That implies continuing to insist on the communal importance of the plan, certainly during moments when we were afraid we weren't going to make it. Remaining adamant that people really do have something to offer and it should be put into action. Otherwise, others do the decision-making. At the same time, I had to make sure that all requests remained within the margins of the flood protection project.

In their explanations of river plans, specialists move on all too quickly to the number of cubic metres and the length of channels. It's much more important that local stakeholders understand the plan. As policy maker, it is impossible to imagine the Waalweelde plan, as it is now stands. Some tough words were exchanged, but in the long run everyone stayed on board because there was no lack of commitment. The river operation was irrevocable. If we had not succeeded, others would proceed to fill in the details. Acute awareness of that held all stakeholders together. Although it concerns a river, Waalweelde has become for me, above all, a spatial project."



PIET IJSSELS FORMER MAYOR OF GORINCHEM

Piet IJssels was mayor when a large part of his town of Gorinchem had to be evacuated in 1995 due to high water levels in the River Rhine and a threatening dyke break at the Gelderse Ochten.

Since then, IJssels has always felt closely involved with the Room for the River programme: from the abstract policy proposals in the Key Planning Decision to the concrete floodplain excavations in the Avelingen industrial area of his municipality. The new zoning for the industrial area and the construction of a quay offer water-related companies a sustainable location. Space is created for enterprise along the river.

HIS STORY "Dyke reinforcement has always been seen as threatening in Gorinchem. The inhabitants were extremely critical of the plainly ugly dyke reinforcements of the 60's. After the evacuation of half the population of Gorinchem in 1995, there has been an enormous turnaround in mindset. During the PKB discussion with the residents, we seized the opportunity to become fully aware that

'We live and work along a river from which we must protect ourselves.'

we live and work along a river from which we must protect ourselves.

Businesses around the harbour area could take advantage of the lower water levels. The zoning plan for the outer dyke harbour area was put on hold, but we could, however, compensate the river widening with an expansion of our harbour. In Gorinchem, we enjoyed a long tradition of fruitful consultation with regards to river projects, but that now employment would also benefit was an extra bonus.

That's the beauty of clever combinations. By organising information evenings and design studios, interest groups were encouraged to think along with us, and large-scale landscape operations were realised without much resistance. Actually, it started with the first reinforcement of the most urgent dyke sections, directly after the high water levels in 1995. A time before Room for the River various dyke sections had to be reinforced urgently, and rapid decisions needed to be made. Despite short preparation time, the new reinforcements blended well with the landscape. In fact, according to an independent survey, these new reinforcements were deemed better than others, which sometimes involved more than ten-year long discussions. This gave rise to the idea of also introducing that landscape element into Room for the River. Thus, things that concern us as a municipality found a place within a government programme for river safety. The very reason to get fully involved."



ANNETTE HARBERINK, PROPRIETOR NATURE FARM KEIZERSRANDE

Annette Harberink was working in biodynamic agriculture and wanted to start her own company. She heard that many farmers in the floodplains along the IJssel River were being bought out. The farmers did not see any possibilities of combining land management with river widening. Annette Harberink did see that possibility and is busy with the start of a nature farm. On a mound in the middle of a floodplain of the IJssel River near Deventer.

'My cows will soon keep the grass in the floodplain short.'

HER STORY "I combine nature with agriculture, water management and recreation. How unique is that! And it's all thanks to the Room for the River programme. The ground is in ownership of the IJsselland Foundation and as future farmer. From 2007 I sat with them at the table to develop plans for a nature farm.

Combined land management fitted in well with what Rijkswaterstaat and the province had in mind with this nature reserve. How the combinations can strengthen each other has been extensively looked into, and gradually everyone became more and more enthusiastic.

Thereby, the process went along very smoothly, and eventually the foundation and Rijkswaterstaat closed a deal wherein arrangements were made. Compensation is made available for the ground that has to be excavated for the river, and nature objectives have been laid down. My cows will soon keep the grass in the floodplain short.

It was very exciting to already have sat at the table with the design phase. At the time, we were searching possibilities for strengthening a traditional farm operation. Every farmer in a floodplain is turning his back. We want to prove that that you really can combine a farm with water management, nature conservation and recreation. As landowner, the IJsselland Foundation has agreed to reimburse, for example, the mowing and removal of grass, as part of river management. I want to demonstrate that the combination of these services, together with the livestock can be profitable."

A photograph of two men sitting at a round wooden table in a kitchen. The man on the left, wearing a light blue shirt, is writing in a notebook. The man on the right, wearing a denim shirt and glasses, is pointing at a document on the table. The kitchen background features hanging pots and pans, shelves with jars, and a window with a view of a brick building. A large red semi-transparent shape is overlaid on the right side of the image, containing text and a large number '2'.

2

2.3 FROM EXPERIENCE: EARLY INVOLVEMENT

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COR BEEKMANS

'Building Blocks (*'Blokkendoos'*) is the ultimate democracy of knowledge.'

PAUL DEPLA

'Dwell a little longer on the individual suffering that some rightly experience.'

NOL HOOUJMAIJERS,

'There appeared to be a lot of possibilities and from the beginning we were treated as a fully-fledged partner.'

2.3 From experience: early involvement

Space for local ambitions

The decision to widen the river rather than to reinforce the dykes means that large areas change dramatically. In order to create space for high water, people have to move, nature and industrial areas are redeveloped, and farmers must exchange their land. The flood protection issue is not merely a national issue; it also demands local inclusion. Local interests and ambitions must be taken into consideration early in the decision-making. Right from the onset the Room for the River programme has, therefore, paid close attention to the creation of local support.

Attention to the whole

The package of measures in the Room for the River programme has developed through an intensive process of participation. Two alternative options are always developed and calculated for the floodplains. During this process, local and regional authorities could present the Room for the River project organisation with suggestions and join them at the design desk. Social organisations were also welcome to engage.

Building Blocks ('Blokendoos')

A particularly useful tool in this process is the Building Blocks computer programme, which calculates the hydraulic consequences of a combination of (river widening) measures and supports the design and selection of measures. The tool was made available to all stakeholders to "experiment with" and demonstrate visually the effectiveness and interdependencies of measures to reduce water levels. Hence, it has facilitated the

dialogue, cooperation and decision-making between policy makers from different levels and regions.

Space for local ambitions

The Key Planning Decision (PKB) gave the framework for the Room for the River programme. The regional parties were given the space to link local and regional ambitions to the flood protection issue. For each measure an, 'initiator' was selected who would take on the task of the planning phase. For many of the measures, a water board, province or municipality has taken on this role. An important reason for this is that, at this stage, the possibility exists to include local and regional ambitions. At a later date, during the realisation phase, also many projects are drawn by regional authorities.

Within the Room for the River programme, the guiding philosophy is: 'controlled trust'. This means that the national government sets

and monitors the boundaries, and the region manages the planning and implementation of measures. This approach gave substance to advice given by the Elverding Commission that endorsed the importance of realistic and broadly supported project decisions. When setting up the projects and their implementation much attention is paid from the very beginning to environmental management. Given the different situations along the Rivers IJssel, Waal and Lek, river branch managers are appointed who could quickly pick up on signals around the areas concerned.

ELVERDING COMMISSION

In 2008, the Elverding Commission, assigned by the then Minister of Transport and Water Management, advised on how infrastructure projects could be accelerated. The recommendation was delivered in the form of a report entitled: 'Faster and Better', wherein the duration of an infrastructure project can be halved. That is possible with a different work method, which is referred to as, the 'Elverding approach'. Following release of this report, several other ministers have requested the application of this method in other sectors, such as, regional development, nature and legislation. Equally, the Elverding approach also serves as a guide when drafting new legislation.



COR BEEKMANS, RIVER BRANCH MANAGER, PROGRAMME OFFICE ROOM FOR THE RIVER

Cor Beekmans has been involved in the programme since 2001, and has helped to establish the Room for the River Key Planning Decision (PKB) at Rijkswaterstaat. He was one of the first employees of the Room for the River programme who initiated contact with local policymakers in the provinces, municipalities and water boards. He is now river branch manager at the programme office.

'Building Blocks (*'Blokken'*) is the ultimate democracy of knowledge.'

HIS STORY "In those early discussions with local policymakers there was an atmosphere of: *there's something in it for us, it's urgent, and the money's there.* A national programme with so much drive and energy where there is space for your own initiative – you just can't let a chance like that go by. It was the ideal breeding ground for local involvement.

During preparation of the Room for the River PKB, the region's wishes ran parallel. And the stakeholder representatives were intensively involved during the design sessions. A huge set of options was created.

It was extremely important for us that regarding the basic principles, and indeed the facts, no political argument would arise. By pulling together, in both the designing and in determining the effect, there would be no difference of opinion concerning the facts. Discussion revolves around choices you make. That greatly simplifies the process.

In that respect, '*Building Blocks*' formed a solid basis wherein all designs, effects and costs came together. I've always said that the '*Building Blocks*' is the ultimate democracy of knowledge. With the measures we had devised together, everyone could explore what precisely the right solution was for their own region."



**PAUL DEPLA, FORMER
ALDERMAN OF NIJMEGEN,
PRESENT MAYOR OF
HEERLEN**

When Paul Depla took office as Alderman in the municipality of Nijmegen in 2000, one of his first large dossiers was the Vinex-location Waalsprong situated on the North Bank of the Waal River. The location was designated by the State. When it claimed that very area for river widening, Depla, as local manager, was faced with a dilemma. The lack of clarity concerning the state's plans with the area – Vinex-location or secondary channel – fuelled the residents' unrest. Depla's initial involvement with the Room for the River programme was getting some clarity regarding the contradictory aspects of the State's spatial planning.

'Dwell a little longer on the individual suffering that some rightly experience.'

HIS STORY "Politics must ultimately make the choice for a spatial plan. However, by presenting clear boundaries it can, for a large part, leave the interpretation to the ones who are directly involved. They are then forced to relinquish resistance and cooperate. To make the best of it. The attitude would be more like: 'If we must, then we'll do a job well done.' That's one of the things I've learned with the dyke replacement at Lent.

The Waalsprong was already hard to endure for the residents, and then The Hague came up with a secondary channel. As government, we see great opportunities, but citizens feel as though they're being used as a bargaining chip. To avoid fierce opposition, one ought to dwell a little longer on the individual suffering that some rightly experience. After an accident, you don't immediately start happily chatting about the future.

To gain mutual understanding, policymakers and citizens must learn to place themselves in each other's position. Not only communication, but also transparency is needed. Allow citizens to understand what our considerations are. Organise, therefore, workshops, or a bus trip to a similar project, which is separate from their own concrete situation. Conversations in a bus soon veer towards other topics, whereby a certain connection is made."



**NOL HOOIJMAIJERS,
FARMER AND CHAIR
INTEREST GROUP UNION
OVERDIEPSE POLDER**

Nol Hooijmaijers is a dairy farmer in the Overdiepse Polder along the Bergsche Maas River at Waspik and Waalwijk. Directly after he had heard of plans to allow the Overdiepse Polder to become an overflow area he took initiative. Together with two other livestock farmers, he set about protecting the interests of the farmers concerned. Due to this action, Hooijmaijers and the other livestock farmers were holding discussions with the government at a very early stage. With some measuring and fitting adjustments, the farmer's proposal to put their farms onto mounds found a place in the river project.

'There appeared to be a lot of possibilities and from the beginning we were treated as a fully-fledged partner.'

HIS STORY "It struck like a bomb when, during the information evening, we saw that the plan was completely filled in blue. We thought it was definite. After we let our frustration be known, we realised that we had two options: we could show resistance, and travel to the State Council every week, only to ultimately be proven wrong. Or, we could make known to the government that we wanted to cooperate. The latter was agreed upon. But then, with an A4 sheet specifying our terms and conditions at hand.

It was painstaking work trying to get all the livestock farmers focusing in the one direction. Our profession is milking cows. We have no understanding of urban or spatial planning. However, we did get a lot of help. First, the agricultural organisation ZLTO agreed with our mound plan, and later we were well supported by the province. An advisory board which consisted of representatives of the different institutions involved has assisted in the further development of our requirements. There appeared to be a lot of possibilities, and from the beginning we were treated as a fully-fledged partner.

We could bring in our knowledge of the polder. When problems arose, with permit issues, for example, they were resolved quickly. There was a perfect mix. We turned a threat into an opportunity, and see the government's set-up as really exceptional. That we have also served the public interest is wonderful. Because, we too, understand that climate change has made these changes necessary."



2

2.4 FROM EXPERIENCE: COMMUNITY BUILDING

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BEN BROENS

'The aim is that there's a definite design over which the Minister or State Secretary can make a decision.'

IRENE VAN RUSEWIJK

'Bring the outside world inside.'

ADRIAAN SMEENK

'The water boards know the farmers and understand the region.'

JACCO ZWEMER

'The general lesson is that communication is at the forefront.'

ANNEMIEKE NIJHOF

'There's a lot of political handcraft involved.'

2.4 From experience: Community building

Collaboration with a clear focus

Management of the Room for the River programme is commissioned by the Ministry of Infrastructure and the Environment and carried out by the programme office of Rijkswaterstaat. Initially, the programme office was tasked with testing the progress and quality of the projects, but soon came to adopt a facilitating role, namely, to support individual projects in achieving the desired objectives and quality.

Identifying problems early

The programme office keeps track of the local projects, with the finger continuously on the pulse. This is done via a so-called river branch manager who, as contact person, forms a link between the regional project teams and the national testers who monitor the entire programme for the programme office. The testers are also consulted for generic problems, such as dealing with cables and pipes. The central coordination of knowledge enabled projects to share expertise. Manuals, guidelines, training, and formal and informal meetings also contributed. In certain cases the policy was adjusted.

Development of a common perspective

Room for the River pays much attention to environmental management and communication. Environmental managers keep an eye on stakeholders and their interests. They can facilitate consultation and cooperation. At the onset of a project, nobody is yet entrenched in his own preference; there is ample space for the development of a common perspective.

With further development of the project plan there can still be consideration for shared interests by modifying provisioning measures or additional policies.

At programme level the environment management is a standing item at the Policymakers Conference, where over a hundred directors conduct annual discussions on bottlenecks.

Consistent management in all projects

Within the Room for the River programme, a balance is sought between directing and collaborating. Project control, environment management and technical feasibility are important topics that must be in balance. This avoids too much or too little emphasis on progress and project risks, support, technique and design. By keeping these factors consistent throughout the programme management and the management of the individual projects, knowledge can be exchanged between the projects and the programme office, and between the projects themselves. In order to achieve this

cooperatively, the programme office works consciously on 'community building'— not only between people with similar roles and responsibilities within the programme, but also between high level representatives from national and regional governments.

Milestone guidance

Room for the river consists of an organisation that seeks to constantly learn and to adapt when circumstances demand. The applicable principle is: 'structure follows function'. The learning and adjusting ability of all the programme's participants is vital to the achievement of objectives within the boundary terms. The so-called 'milestone guidance', wherein interim benchmarks were tested against predetermined criteria, has played an important role in this. That guidance has provided transparency during the plan formations and encouraged those involved to keep up the momentum. Moreover, this approach enabled progress and quality of the measures to be checked

regularly, and eventual problems to be signalled out early. Because Room for the River was assigned the status of 'Major Project', this mechanism of guidance is applicable. With a 'Major Project', the Minister is accountable to the House of Representatives for progress and expenditure on a half-yearly basis.



**BEN BROENS, DEPUTY HEAD
OF ENGINEERING AND
DIRECTOR OF KNOWLEDGE
MANAGEMENT, ROOM
FOR THE RIVER
PROGRAMME OFFICE**

As one of the three programme directors, Ben Broens, is responsible for knowledge management. He is tasked with securing and realising the objectives, as well as undertaking the major task of substantively managing the risks of the programme. A wide network of experts helps him with possible bottlenecks.

HIS STORY "One of the most valuable keys to success in Room for the River is knowledge management: knowledge about water safety and spatial quality, and how to apply it to design and implementation. It's also knowledge that is needed for controlling a number of risky themes within the programme. Specialists in the programme office are capable of quickly seeing and assessing problems that arise in the projects,

'The aim is a definite design over which the Minister or State Secretary can make a decision.'

and offering assistance to the project managers by tapping into their knowledge network.

Milestones play a crucial role when managing the entire programme. These are the decisive moments that are deliberately built into every project in order to keep the programme manageable, and to render the planning process concrete. With these milestones, a broad scale of aspects is assessed. One can observe whether objectives are met, and preconditions are not exceeded. The assessment framework specifically fitted into the programme offers assistance, and we were able to indicate clearly at which moments and in which way the feasibility and objectives should be monitored.

From the central overview of the programme office, are aspects in the planning process that deserve general attention, e.g. earthmoving operations, spatial planning, permits and estimates. In these areas, support for the project teams is intensified. During the process, such an approach makes it possible to correct or incorporate alternatives. Thus avoiding that the feasibility of the design only becomes clear when the process is finalised. The ultimate aim is a well thought-out, definite design over which the Minister or State Secretary can make a decision which is within the scope, time and budgets."



**IRENE VAN RIJSEWIJK,
DIRECTOR POLITEA
TRAINING AND COACHING**

Irene Rijsewijk is director of training and coaching firm, Politea. Training is given to project managers, civil servants, and contractors to work together with stakeholders. Through role-play, she exposes the hidden interests of a particular standpoint: not only the interest of the other, but also explicit self-interest.

'Bring the outside world inside.'

HER STORY "Cooperation is most appreciated when both parties can put themselves in each other's role, background and interests. You have to understand the world of the person with whom you work, negotiate, or have any other kind of dealings. Whether it's an alderman, a contractor, a community organisation representative, or someone from the media.

Bring the outside world inside. That is where the programme office has laid emphasis from the very beginning. Together with Liesbeth van Riet Paap, stakeholder manager Room for the River specific trainings were organised. All are practise sessions, including simulation games, which in addition to the relevant officials, an invitation is extended to representatives of other parties within Room for the River. It was not about the content, but about successful collaboration. The training is time scheduled in such a way that all involved have already got to know each other prior to actually working together and negotiating. Thereby, several Policy Conferences have been organised to inform aldermen, chairs of water boards, and deputies and in order to retain the urgency.

Through training, participants gain insight into each other's background, the reason why negotiating parties display a certain attitude, and how they can interact with that. For instance, contractors often don't understand the position of the official who is, after all, accountable to the board. Officials, in turn, learn that the attitude of contractors during negotiations is equally determined by their accountability towards their shareholders."



ADRIAAN SMEENK, PROJECT LEADER VEESEN-WAPENVELD, WATER BOARD VALLEI AND VELUWE

On behalf of the Vallei and Veluwe Water Board, Adriaan Smeenk is responsible for the implementation of the Veessen-Wapenveld river widening. Initially, the plan for a flood channel was met with a large amount of resistance from the local farmers. Nevertheless, the decision was taken. In the meantime, Smeenk is at the negotiating table with the farmers in an effort to incorporate their specific requirements as much as possible.

'The water boards know the farmers and understand the region.'

HIS STORY "A nice aspect of Room for the River is that which authority best suits a certain stage of the programme can be considered. As a result, the Vallei and Veluwe Water Board were deployed in the realisation phase of the Veessen-Wapenveld project, after the province had drawn the planning study phase. The farmers as a whole let it be known that they were against the plan for a flood channel. However, following the State Secretary's definite and final decision, the farmers knew that the channel was unavoidable, and that it would be in their own interest to comply. When the responsibility was handed over to the water board, the farmers had to deal with other people and other authorities. The great advantage was that the water board's management branch was very familiar with location specific issues, implementation aspects, and agricultural matters. Moreover, the water board knows all the farmers and knows the culture of the area. Therefore, it is able to assess the interests of the farmers.

We picked up communication immediately, and focusing on solutions, details within the project were discussed. By sharing thoughts, we generated a small degree of shaky confidence. It became clear that for them, as plot owners, there was something to gain. Visiting the farmers in their homes to discuss individual concerns aided the growth of confidence. While sitting at their kitchen table we could, with the aid of drawings and clear use of language, indicate concretely which plots the farmer would get, where drainage would be, where a ditch had to be moved, or a culvert ditch installed. As such we were able to proceed, and their uncertainty came to an end."



JACCO ZWEMER, PROJECT LEADER NOORDWAARD AND ROOM FOR THE LEK, RIJKSWATERSTAAT

Jacco Zwemer worked initially as project leader with the Noordwaard project and his experience came into good use with the start of the Room for the Lek project. His motto is: include the residents and maintain clear communication.

HIS STORY "A crucial moment in the Noordwaard project was when local representatives made clear to farmers and agricultural organisation ZLTO not to consent to the original intentions to reserve a large part of the area for future measures. They let it be known that it was best to get it right in one go. According to me, the Noordwaard success is that during the entire process, the residents and the farmers in the project area were really listened to. Constant anticipation of possible consequences of implementation activities, and the timely consultations with,

'The general lesson is that communication is at the forefront.'

for example, the Water Board about management requirements, also had a very positive effect.

Another crucial moment was the tender where the contractor was challenged to a personal filling up. The spatial quality was, of course, an important issue in the project. The plan, by the way, was fixed. That was needed to rest the residents assured, and to reach flood protection objectives. However, therein was much to optimise using all manner of design freedom. The contractor offered one large family 47 bridges of his own design. Furthermore, it's important to keep that 'good feeling' going with people in the area. Our work is often conducted in their backyards. Every now and then that leads to changes in the work method, or detail adjustments in consultation with the residents. Thereby, a good alignment regarding management expectations, and honouring promises is most important.

In the Room for the Lek project, we apply many lessons learnt from the Noordwaard. The general lesson is that communication is at the forefront; that you clearly indicate in advance what people can expect in terms of planning, obstacles, and eventual damage. Thereby, one should not hesitate in also expressing uncertainty."



ANNEMIEKE NIJHOF, FORMER DIRECTOR-GENERAL WATER, MINISTRY OF TRANSPORT AND WATERWORKS

Under the Secretary of State, Annemieke Nijhof, was for many years the first responsible for the execution of the Room for the River programme. She has experienced how enthusiasm for work on the vitality of the river system goes hand in hand with spatial planning.

HER STORY "Room for the River appeals to the imagination. Obviously, there is vast support in the rivers region for increasing flood protection, but the residents also have an eye for the beauty of the rivers and the floodplains. If work done on safety runs parallel with the environment, much enthusiasm is generated: most certainly if citizen contribution is incorporated into the programme. Therein, the programme is unique, also for the Netherlands. All projects are officially drawn-up by the programme office, however, prior to implementation, they

'There's a lot of political handcraft involved.'

have to be politically approved. There's a lot of political handcraft involved.

In the beginning, we at the General-Directorate Space and Water and Rijkswaterstaat clearly had to get used to that mutual adjustment, but in the end it worked out well. Initially, there was hesitation towards opening the door so wide open to local managers and residents. There's the risk of undergoing years of deliberations about a fantastic plan that has yielded 33 cm water-level reduction instead of the required 38 cm. You may have given space for deliberations, but you've also generated high expectations that, from a hydrological viewpoint could not be justified. That has happened a few times, resulting in the rejection of a plan at political level. Fortunately, there are good examples, where politics has, indeed, chosen for a completely different plan, such as the Overdiepse Polder mounds plan, which was presented by the region.

The programme office always kept an eye on the whole programme. It was not only about implementation of the projects. The question always asked was: what are the implications for the entire programme? The acquired knowledge and experience of the first projects was utilised to set up, or modify, other projects. At a certain point, an advisory board which consisted of representatives and policymakers of the different institutions involved was established so that image-defining representatives from national and regional governments regularly discussed the main points of the programme. That was a good move because complex decision-making process talks could take place, separate from those concerning the direct interests of the individual projects."



2

2.5 FROM EXPERIENCE: THE RESULTS

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PETER GLAS

'Civil engineers who work *with* nature, instead of against nature.'

SYBE SCHAAP

'Do something important for the people and not necessarily for yourself.'

ANDRIES HEIDEMA

'Water problems have by definition an impact on many areas of life.'

JAN HENDRIK DRONKERS

'Harsh and difficult discussions have taken place.'

2.5 From experience: the results

Room for the next river projects

The exceptional approach of the programme has unleashed a great deal from high level representatives from national and regional governments, project leaders and stakeholders. A scientific survey by PhD students at Delft University of Technology shows that 93% of those involved apply lessons learned from Room for the River to their own organisation, and other projects. Principally, it is about the linking of flood protection and spatial planning, and collaboration between organisations.

Inspiration for future projects

Water management is enriched with diverse assistance. Hence, advice is given for a timely start on incorporating spatial quality in design processes, and to anchor highly valuable solutions in the planning process of procurement and maintenance plans. Local land use, cultural, geo-morphological and hydraulic conditions are analysed as starting points. Landscape architects and quality teams support the design process. Possible measures for river widening and local solutions are documented as a source of inspiration for future projects.

Cost conscious design

Details have been given out on the concept of 'cost conscious design'. Namely, ground work and ground currents are a major expense for river widening. Soil experts have incorporated possible cost savings early in the spatial design, thanks to the choice of soil quality and function. Information on vegetation, hydraulics, spatial planning and the planning is standardised and streamlined

between projects and disciplines. Room for the River lowers, for example, five hundred groynes in the Waal River, some of which are more than two hundred years old. The groynes differ in function, material and form. All this information is laid out in a 'groyne passport', which is freely available for future use, and can be supplemented with information on other groynes in our river region.

Innovative designs

Room for the River has initiated and supported the development and implementation of diverse design processes. Where dykes are relocated inland, land, property, and functions lie outside the dyke, and that is why standards are being worked on for these areas: height of the mounds for homes, building codes, available evacuation routes, etc. For decades dykes have been renovated or heightened, but not redesigned. The requirements for dyke design have been updated, particularly regarding the thickness of the necessary clay layer. Room for the

River has given a comprehensive interpretation of the Soil Quality Decision and the Water Regulation, and on the European Natura 2000 Policy for nature preservation and development.

Hydraulic model

Room for the River supports and stimulates a wide range of scientific developments. The so-called Building Blocks ('Blokken') was originally created as a hydraulic model for analysing water levels, but is further developed to support dialogue between participants, and decision-making. Likewise, the Delta programme develops similar models and will probably use the Building Blocks as a basis. Development, application, monitoring, and validation have improved diverse models in ecological, sedimentary, morphological, and hydrographic areas.

Culture of learning

Due to Room for the River's underlying novel approach to integrated water management and cooperation, the Room for the River programme had several challenges to overcome. The programme had deliberately chosen for a culture and structure that made a wide variety of outcomes possible. It was a culture of learning. It included training, evaluations, and community building, which enabled lessons to be shared both within and outside the programme.

Water governance

Unique organisational structure and operational, institutional and constitutional collaboration has yielded new scientific insights. Room for the River is regularly cited in the sciences as an example of 'multi-level governance'. This involves the organisation and processes of decision-making, and cooperation between authorities at different levels, from State to municipality. Also the 'adaptive management' of the programme office has drawn the necessary scientific interest. Based on changing circumstances and continuing new learning experiences, the internal processes and structures are adjusted.

A survey of one hundred and fifty people involved, indicates that nine out ten reveal that the work method of Room for the River has taught them something. And that they use elements of what they have learned in their daily practise. Examples mentioned are: new design and calculation methods, closer cooperation between governments, the use of programme offices, formations of project teams, project control, milestone guidance.



PETER GLAS, CHAIR UNION OF WATER BOARDS

Alongside Chair of the Union of Water Boards, Peter Glas is also Chair of De Dommel Water Board. He is not actually directly involved with the Room for the River programme.

Nevertheless, he notes that the programme makes a profound impact on the water boards in the rivers region. He observes various elements that are also of interest to fellow water boards.

HIS STORY "I see the Room for the River programme as a turning point in time. If in the past, it was fighting against water, it is now moving with the water. This comes down to working on a more dynamic river system, instead of canalising with dykes, groyne and navigation channels. Civil engineers who work with nature, instead of against nature. It may sound a rather noble, but in essence it's what it's about. All disciplines come together in the programme, and the manner in which decision-making is conducted by all involved, is something I see

'Civil engineers who work with nature, instead of against nature.'

as social innovation within water management.

It's extremely clever that it's realised on schedule and within budget. There must tight direction, and I can tell that time pressure forces collaboration so that targets can be met. In that sense, it's good to have the water boards there: procedures are prevented, and consultation with the environment is compensated because the project will proceed faster in implementation. We've experienced a similar situation ourselves with the seventeen-kilometre long brook recovery project for the Dommel River in the urban area of Eindhoven. Always tricky, but by involving the people, and making it clear to them that it was also their project, ultimately no objections were raised.

I can well imagine the possibility of water boards using an approach such as Room for the River, with smaller waters. Although we're not spatial planners we would, if a spatial task were to present itself, work out a kind of minimum scenario that is feasible and affordable, and meets with MER conditions and suchlike. Prior to actually moving on to implementation, we would offer the possibility of bringing forward alternative solutions. That can also be in the start-up phase. De Overdiepse Polder is an excellent example of this."



**SYBE SCHAAP, FORMER
CHAIR WATER BOARD
GROOT-SALLAND, FORMER
CHAIR UNION OF WATER
BOARDS, CHAIR
NETHERLANDS WATER
PARTNERSHIP, MEMBER OF
THE UPPER HOUSE**

As Chair of Water Board Groot-Salland, Sybe Schaap became involved with the Room for the River programme at an early stage. The fact that thoughts were shared with everyone enthuses him to this day.

HIS STORY "So far, I have enjoyed the Room for the River programme, both the concept and the interpretation. It is an example of tight management from one point in time, and in cubic metres: you cannot go over the one, and you cannot remain under the other. If you don't set any preconditions, it becomes an open process. You can think along with this programme, but there are

'Do something to the advantage of the people upstream and not per se for yourself.'

obligations: water safety demands results, and the other works call for commitment.

That a certain amount of determination and persistence is needed was obvious in the Veessen-Wapenveld project, which was initially faced with a lot of resistance. However, after the final decision on the secondary channel – which was necessary as it brought about a huge water level reduction upstream, and the alternatives were much more expensive – the farmers were, once again, allowed to express their thoughts. That is, indeed new: doing something that's to the advantage of the people upstream, and not per se for yourself. It's a wonderful programme, which also remains within the budget. It proves that it can be done with large projects.

The concept can be presented abroad. Not only because of its integral approach and cooperation, but also because we demonstrate that one's own competency need not be decisive. In this area, it is internationally significant not to begrudge others. Visitors from abroad experience that as an eye-opener, and are even more enthusiastic about than, for instance, the Oosterscheldedam. Our Delta works are, of course impressive, but Room for the River is for their densely grown delta, a workable concept. Room for the River is a fabulous trigger for showing the world what we, in the Netherlands, are capable of."



ANDRIES HEIDEMA, MAYOR OF DEVENTER

Before Andries Heidema became mayor of Deventer, he was alderman in the municipality of Neder-Betuwe. His portfolio was Water. He arrived there just after the evacuation in 1995, and has therefore, experienced the complete preparations and implementation of the Room for the River programme.

'Water problems have by definition an impact on many areas of life.'

HIS STORY "We were driven to take part in the Room for the River programme also because at an earlier stage the River IJssel had drenched our paths. The location, Deventer, is one of the bottlenecks in the river. The realisation that something had to be done was evident. That also applies to other river municipalities. A crucial factor in gaining support is a good report on the advantages and the necessities. Spatial quality also needs to be looked at. Water problems have by definition an impact on many areas of life. It's quite normal at local level to work integrally, considering the many different interests. At national level, the thinking is more sectoral.

I see Room for the River as a major trend break. Several governments and community groups got together at an early stage and, under the direction of the State, drew up a coherent national plan. Subsequently, we as a municipality dealt with the implications of the plan in Deventer. In close collaboration with local stakeholders, we were able to come to terms with the impact.

I can ascertain that that philosophy has now descended onto the Delta programme, under an equally powerful director. And that is good because if you tamper with flood protection it has an effect on everything surrounding it. It's about having a broad approach, involving others, and seeing what work can be created with work. With that approach and the dual objective Room for the River demonstrates that there is a pay-off. It's worth following."



**JAN HENDRIK DRONKERS,
DIRECTOR GENERAL
RIJKSWATERSTAAT**

As Director General, Jan Hendrik Dronkers is officially responsible for the implementation of Room for the River. He follows the programme closely, which includes periodic consultations with the programme office. In his daily work, the programme is regularly raised with other dossiers, for example, during the Rhine consultation with Germany.

ZIJN VERHAAL "I see three main factors that determine the success of the Room for the River programme. First is funding. It's a 100 percent government paid programme. In the water world, up till now, the norm has been: he who pays calls the tune. With this programme we have abandoned that. It has not been our strong financial position that determined the solutions, but the amount of centimetres water level reduction that we wanted to achieve. We set ourselves a clear and explicitly defined objective without attaching solutions in advance.

'Some quite firm discussions and tough exchanges took place.'

A second success factor is the integral approach, and the coupling of safety objectives with concerns such as nature and agriculture whereby citizens and businesses could participate in the search for solutions. The third factor is that we involved the environment as early as possible in the setting-up of the plans. That principle was already successful in the so-called, 'Speed-road-approach', which was derived from the idea that a frustrating traffic jam problem was not solved for the public, but with the public. Rijkswaterstaat's aim was to bring the authorities closer to the public. We wanted real participation. With Room for the River that worked incredibly well and it's reflected in the programme's image. The projects are not imposed, but rather, invented by those involved. That increases support enormously. People are proud if the project is a little of themselves. It alleviates resistance, and there's a greater chance of projects meeting deadlines and staying within the budget upon completion.

It hasn't all been a bed of roses. Some quite firm discussions and tough exchanges took place. However, the underlying thoughts were always of equality and participation. For that we are respected. That also means that people want to work for the programme. We wish to continue with that programmatic, integral, connecting work method, and that would include the new Flood Protection Programme that will be realised in 2020. To build up the programme office, we recruit those who have gained experience in the planning phase of Room for the River. By doing so, we pass on the work method and experience of Room for the River."



Building Blocks for integral river management

Room for the River is an exceptional programme because water management and spatial planning come together. De government branch of water safety is linked to local ambitions. A team from the UNESCO-IHE Institute for Water Education consisting of Prof. Chris Zevenbergen, Prof. Richard Ashley, Sebastiaan van Herk MSc, and Jeroen Rijke MSc have evaluated this integral approach. A significant question in the research was: which building blocks determined the realisation of this integral approach?

For the answer to this question 55 people who worked with the programme were interviewed, and a survey was carried out with another 151 people. This group included local managers, scientists, employees of the Room for the River programme office, members of the project teams, external consultants, and contractors. More than 80 percent of the respondents provided the following five building blocks.

A clear integral vision as basis for flood protection

The seed of integral water management was sown in the 70's. Immediately after the flood of 1993 and 1995 there originated from a new paradigm a broad-based integral vision on flood protection: better protection by creating more space for the rivers. This clear vision formed the basis for the development of all individual measures throughout the planning process. The aim was clear for all concerned. The river region

was considered as a whole: a one-system approach whereby the effectiveness of measures was seen in conjunction with one another.

Multiple interests taken into account

The achievement of the flood protection objective is in the Key Planning Decision (PKB) stipulated as a result obligation. Other interests must be considered as a commitment to the spatial quality of the river region, in accordance with the PKB within the programme. The commitment has had multiple effects. First, the State had to incorporate local ambitions in the planning. Second, this allowed local parties the possibility to achieve their ambitions by cleverly taking advantage of the flood protection plans.

Fit-for-purpose organisation of collaboration

Room for the River is seen as an example of multi-level governance. The boundaries within the programme are protected by the State, while

the plans are created and implemented by local and regional parties. This form of organisation is chosen to maximise support, and gather region-specific knowledge. At the same time, a programmatic approach is chosen so that the programme office can effectively support the objectives, progress, and quality of the individual projects. Cooperation between the parties is organised in such a way that function always takes precedence in the organisational structure (fit-for-purpose). Therefore, adjusted when necessary.

A planning process with design freedom that decreases in scope

Design freedom is necessary in order to incorporate local ambitions in the planning process. Especially during the exploration phase of Room for the River is space given for linking, for example, economical, nature, recreational, or urban planning ambitions to the river widening measures. Furthermore, the planning process is structured with clear milestones to assess feasibility and enforceability. Design space for plans diminished as the planning process progressed, and a record was kept by interim project decisions (picket poles). By clearly communicating what can, and what can no longer be negotiated, expectations of stakeholders are steered and confidence grows.

Adaptive management

The economic and political context has constantly changed since the beginning of the programme. Different phases of the programme demand different expertise and approach. Adaptive management is needed to effectively operate with such changes. During the programme not all has gone well in one go. Opportunities and problems were, however, identified at an early stage. Lessons have been learned and measures taken. This learning ability came about through effective cooperation between the programme office and the region. As a result, the programme office anticipated on regional processes, and was able to adjust the projects where necessary. It spread

WATER GOVERNANCE

"International literature defines water governance as follows: all political, social, economic and administrative systems that are used to develop and manage water resources and the provision of water services, at different levels in society and for different purposes. Water governance includes mechanisms, processes and institutions by which all stakeholders – government, businesses, citizens, interest groups – bring in their values, state their priorities, exercise their rights, fulfil their obligations, and negotiate their differences, from their own competencies." (Water Governance Centre, 2012)

new knowledge gained on all projects, and adapted its own organisation. Finally, political or ministerial changes could be timely anticipated through sound cooperation between the ministries and the programme office.



International perspectives

The Dutch Approach

Room for the River has become an international concept. It is seen worldwide as an inspiring example of a large-scale river project whereby water safety is increased without heightening dykes. As for the Delta works, foreign managers and river experts from countries, which include China, Australia and the United States, travel to the Netherlands to personally witness, 'The Dutch Approach'.

Cooperating governments

In addition to the technical approach, foreign interest is focused mainly on the way in which national and regional authorities work together. Namely, in the tight financial and time-bound direction of central government, which simultaneously also allows enough space for the knowledge and wishes of local authorities. This interactive and adaptive process of cooperation between managers, officials and the market is still unknown in many parts of the world. The enormous international interest for Dutch water governance demonstrates our country's strength in combining knowledge of the water system with planning, design and collaboration.

Soft delta technology

Experience acquired with the Room for the River programme strengthens the Dutch top position in the growing market for creating and managing safe delta areas. In almost every river basin in the world there is the challenge to cope more skilfully with the vagaries of the water system that lead to flood

in one moment and to drought in another. This is not just about our 'hard' delta technology, such as dykes and barriers, but also 'soft' delta technology, such as spatial planning and collaboration. National and local authorities abroad also have the need to experience cooperation with residents in order to offer integral and sustainable solutions.

DIFFERENT MEANINGS

In many places abroad, the term 'Room for the River' doesn't have the same meaning. In the Netherlands, it's namely about an integral, multi-functional approach with safety as a guiding principle, and spatial quality as a commitment. In the United States it mainly involves water storage in combination with nature development (river restoration), and in France and Germany it's about the removal of obstacles in the riverbed.

COOPERATION EUROPEAN RIVER PROJECTS

The Room for the River programme office holds ultimate responsibility for two European partnerships: Adaptive Land use for Flood Alleviation (ALFA) and Flood Resilient City (FRC).

The European cooperation within the ALFA project focuses on the exchange of knowledge for increasing the water discharge and storage capacity of six rivers in England, Germany, Belgium, France and the Netherlands. Thereby, optimal combinations of the river with other functions, e.g. agriculture, recreation and nature development are especially looked into. Exchange of knowledge has led the French government to consider the application of mounds in a still to be applied retention

area along the Seine, upstream from Paris. In a similar way, eight cities and two universities work together in the FRC project on flood protection of the city. Cities such as Dublin, Bradford, Nijmegen, Mainz, Brussels, Leuven, Paris, and Orléans all lie on a river. To protect the inhabitants against the danger of high river discharge, broad-scale measures are taken, such as, better awareness of the river's behaviour, flood-resistant construction, infrastructure works, crisis management, and the building up of capacity and competence of municipalities. A good example of an exchange of knowledge is how the quays of Orléans inspired the river quay design revision at Lent.

No blueprint

However, the Dutch approach is not a blueprint for other countries. The historical, geographical, socio-economic and governmental institutional context varies from country to country. The differences are often so great that the Dutch approach cannot be applied one-on-one. But in the search for an appropriate approach, the Dutch water sector offers many possibilities. Experience with Room for the River has yielded high-quality expertise, which is very useful in advising foreign governments.

Sense of urgency

Foreign interest for Room for the River depends greatly on the sense of urgency. That sense of urgency is at its peak directly after a heavy flood, when the government expects decisiveness. That is when the opportunity arises to adopt a new approach. There is, however, the tendency to fall back on old practises: to repair the damage and rebuild in

exactly the same way in order to protect the affected areas. In the Netherlands, the sense of urgency rose following the high water levels in 1993 and 1995. Incidentally, that sense of urgency abroad does not speak for itself. Take, for instance, flood protection in Paris. The last flood in the French capital dates back to 1910. Water safety, therefore, is not high on the political agenda, and the river authorities would receive little acclaim for the construction of a large upstream retention area that would greatly reduce flood risk in Paris.

Who has the say?

Another difference with the Dutch situation is the scope of jurisdiction of the governments concerned. In other words: Who really has the say?

In other countries it is usually a national policy for water protection that is missing, and local authorities only have responsibility

for water protection for their part of the river. Within those local authorities the approach may also be divided across multiple departments. The greater this fragmentation, the more difficult it is to come to a programmatic approach for the entire river. Germany, where federal states are responsible for water safety is an example. Larger rivers must first reach agreement on a joint up and downstream approach. And then international cooperation is needed for cross-border river basins.

International alliance

Foreign river management can, therefore, differ greatly from that of the Netherlands. Nevertheless, there are great opportunities for marketing Room for the River philosophy abroad. The success is mainly determined by the extent to which the Dutch government and industry manage to pull together. Mutual cooperation is needed in order to be able to offer an integral package; thus uniting knowledge, skills and resources. But equally needed to explore local foreign situations, and to make contact with local authorities. As well as to enter into partnerships with both local and international market players.

From the Netherlands, Room for the River employees, among others, have built valuable contacts with river experts and managers in Australia, Indonesia, the United States, and the European countries. Interest for Room for the River ideas remains undiminished. The creation of an international network of river experts can be a strong boost to the exchange of knowledge and the formation of international partnerships. Therein, the Netherlands can play an important role.

ROOM FOR THE RIVER INTERNATIONAL CONFERENCE

In collaboration with UNESCO-IHE and partners such as the Water Governance Centre and the Netherlands Water Partnership, Room for the River programme office organised an international conference on 19th November 2012, in Rotterdam. Representatives from six different countries gave talks on water safety in their country. Speakers from Australia and America, for example, told about their approach after very recent flooding of the Brisbane River and the Mississippi with the highest water levels ever measured. The foreign speeches made it clear that Room for the River is particularly unique when it comes to water governance; a management approach wherein prior to, and during implementation, intensive consultations are carried out with local interest groups. Water safety in these countries is in the hands of strongly civil engineering oriented river administrators who totally independently make design plans whereby the interests of local actors are barely taken into consideration. In contrast, local communities in developing countries exercise a great amount of influence on water safety, which obstructs central management.



4



Trendsetting for future water safety programmes

Thinking in terms of water and space already deeply embedded

Climate studies predict increased precipitation in the catchment area of the Upper Rhine in the future. Calculations indicate that in such a situation, the flow rate at Lobith can reach up to 18000 m³ per second. We live in a delta. Work is never completed. Managers of the new water programmes let it be known that thoughts on area development whereby water safety and spatial planning are combined have already been deeply rooted in the rivers region.

Continuation in the works

If a Room for the River 2.0 comes, it must be part of the Delta programme wherein State and region work together. This programme focuses on water safety and freshwater, and was launched in 2010 under the supervision of the Delta Commissioner, Wim Kuijken. Rijkswaterstaat and the water boards are ready to start implementation in 2020. One section of the Delta programme is the further increase of water safety in the river regions. Tools have been laid out ready for the transfer of dykes, lowering of summer beds, and high water channels – alongside dyke reinforcement.

No dual objective

Will the Delta Commissioner adopt Room for the River's body of thoughts? Yes and no, declares Delta programme staff employee, Pieter Bloemen. Bloemen is responsible for strategy and knowledge. "Room for the River has a dual objective of water safety and spatial quality. Therein, the programme is

unique. Spatial quality is normally aspired to, but the objective is rarely laid down at the highest level. The Delta programme differs in that spatial quality is an ambition, not an objective. Nevertheless, we notice in our discussions with managers, particularly in the river region, that their thinking is strongly geared towards spatial solutions in the improvement of water safety. Apparently, the ideas behind Room for the River have nestled deeply, and there is much support for continuing in this manner. The significance for us is that it can build a bridge between policy and implementation", says Bloemen.

Searching for scale increase

In the meantime, work is being carried out on the new Flood Protection programme that can be regarded as the initial implementation programme of the Delta programme. The focus is on strengthening 770 kilometres of dykes, which do not conform to standard. Last year, the Union of Water Boards and Rijkswaterstaat set up a special bureau

together for this dyke-reinforcement programme. Furthermore, the Room for the River programme management was closely looked into, according to director, Richard Jorissen. "The Room for the River approach exemplifies for us the achievement of scale increase and effective decision making in consultation with regional parties. And indeed, the support you give as programme office to the implementation project teams very much appeals to us", says Jorissen. In his opinion, these are the conditions vital to keeping within budget and avoiding delays.

Environment management

With the dyke reinforcement projects, Jorissen wants to quicken the pace as much as possible. He has also learned lessons from the Room for the River large-scale structure with 34 subprojects on equal footing. "A scale increase like that makes an area approachable. Room for the River has demonstrated that with targeted environment management, a good result is reached more rapidly. Bring local interests in view and place the protagonists on stage. Moreover, we also want to take over the concept of the administrative contract – in our case, between the State and the Water Board. Results are that for each subproject, there is clarity for the Minister and the Chair of the Water Board, on what is being done, and in which manner."

Close to stakeholders

Room for the River concerns a government programme where implementation of subprojects is carried out in collaboration with local parties, such as the water boards. Therefore, from centralised management to decentralised implementation. According to Erik Kraaij, director of the Union of Water Boards, and deputy director of the Water Protection programme, the situation is different with the new Flood Protection programme where the water boards are themselves responsible for their projects.

Kraaij signals that the water boards are, indeed, searching for a form of central management so that all those small dyke projects can be carried out much more efficiently. "In the past five years, Room for the River has set a trend with the water boards involved. Water boards, such as Groot Salland and Brabantse Delta have undertaken implementation. They have been given the opportunity to become proficient in the management of large-scale projects. Due to their expansive knowledge of an area, and the representation of stakeholders in their organisation, they are close to the environment. The water boards have invested in that, and we can make use of it for the implementation of the Flood Protection programme", asserts Kraaij. He is of the opinion that knowledge of an area is sorely needed. The dyke reinforcement projects run across towns and villages, and directly effect many inhabitants – even more so than Room for the River.

Under construction

Water works in the Netherlands never end. The next major water safety programmes are already under way. Room for the River has set the tone, and the three starting points emerging from the programme will be used by a new generation of programme managers. Room for water where possible, and dykes where necessary. A clear water safety objective linked to spatial quality, and an enthusiastic, connected environment management. "The Delta programme does not have a dual objective of water safety and spatial quality", remarks Pieter Bloemen. "And I can imagine it isn't really necessary, certainly not in the river region. Room for the River has ensured that thinking in terms of spatial solutions in that area is already taken for granted. Without a doubt, the region will have its own ideas on spatial planning. We remain open. We'll see for which management and political direction will be chosen."



Credits

Tailor made collaboration

A clever combination
of process and content

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