

EXPOSICIÓN INTERNACIONAL ZARAGOZA 2008



Víctor Viñuales

CAJA DE HERRAMIENTAS PARA LOS CONSTRUCTORES
DEL CAMBIO

A TOOLKIT FOR THE BUILDERS OF CHANGE

CAISSE À OUTILS POUR LES BÂTISSEURS DU CHANGEMENT

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EXPOAGUA ZARAGOZA 2008 S.A.

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Víctor Viñuales. Sociólogo y activista ambiental. Director de la Fundación Ecología y Desarrollo. “Caja de herramientas para los constructores del cambio” es un documento fresco, lleno de ideas, en el que se incide en la importancia de las personas para marcar la diferencia (“se precisan constructores de sueños”) y la acción colectiva. En su capítulo final, titulado “Los 25 instrumentos para el cambio”, se plantean sugerentes iniciativas en positivo para hacer este mundo más justo y en el que vivamos de una manera más respetuosa con el medio ambiente.

Víctor Viñuales. Sociologist and environmental activist. Director of the Foundation Ecology and Development. “Toolbox for the change builders”, is a fresh document, full of ideas, which highlights the importance of people in order to stablish the difference (“dream builders are needed”) and collective action. In its final chapter, entitled “The 25 tools for change”, positive suggestive initiatives are proposed in order to make this world a fairer place and in order to achieve amore respectful lifestyle towards environment.

Víctor Viñuales. Sociologue et activiste environnemental. Directeur de la Fondation Écologie et Développement. « Boîte à outils pour les bâtisseurs du changement » est un document frais, rempli d'idées, qui insiste sur l'importance des personnes pour instaurer un changement et l'action collective : « les bâtisseurs de rêves sont nécessaires ». Dans son chapitre final, intitulé « Les 25 instruments du changement », il propose des initiatives positives pour améliorer la justice du monde dans lequel nous vivons et pour adopter un mode de vie plus respectueux de l'environnement.

María Teresa Fernández de la Vega

Vicepresidenta Primera del Gobierno de España

Vice President of the Spanish Government

Première vice-présidente du Gouvernement d'Espagne

It is said that the future is woven from our aspirations, with a thread made from hopes, desires and dreams. Although it may seem a paradox, readers will find a memory from the future in the pages of this catalogue, a memory of our hopes and dreams, of what is waiting for us on the horizon and what unites us, a memory that reminds us that only by joining forces may we make the future that we yearn for become reality.

Aspirations build our hope which in turn weaves our future. However, Zaragoza 2008 is also the expression of a firm determination to transform rivers and seas into bridges that unite people rather than barriers that separate them. It is also the expression of the determination to work with a united front to protect our planet, as we are now more aware than ever that destiny is merely the name given to the thousands of millions of decisions taken by each and every one of us, whether these decisions are great or small, public or private, taken individually or in a group. We are now more aware than ever that the actions of every single person on the planet have a global impact.

The city of Zaragoza is a crossroads of civilisations and peoples. It is proud of its past and has thrown itself into the future. It is in this city that humanity has been rediscovered through projects, hopes and proposals related to the theme of water. People from all over the world will come together in the Expo 2008 pavilions, cultural encounters and activities to show us the best of their efforts, achievements and hopes for the future.

This is the contribution that the city of Zaragoza, the region of Aragon and the whole of Spain intend to make to the world. Mankind is more aware than ever that humanity has become a shared destiny, and a stream of hope, aspirations and trust, gathered from all over the world, will be concentrated within a 25-hectare site in Zaragoza. Readers will find neither more nor less than this in the pages of this catalogue. I hope that you enjoy it.

Marcelino Iglesias Ricou

Presidente de Aragón

Head of the Government of Aragon

Président de l'Aragon

Sustainable development provides citizens with all the necessary ingredients for them to cover all of their needs and prosper, without preventing future generations from doing the same. In a world where economic growth is measured in terms of production and consumption and where natural resources are used indiscriminately, sustainable development has become the major challenge of this century.

Water and energy are crucial elements for sustainable development and the progress of mankind.

Expo Zaragoza 2008 is an outward reflection of Aragon's deep commitment to achieving development that is both sustainable and in balance with the environment. Aragon, which has always been home to many different cultures, now offers the world a message of hope for the future through the International Exposition on Water and Sustainable Development.

Since the beginning of humankind and our first efforts to shape our surroundings, water has been a vital resource for nature, agriculture, industry, leisure...and above all, for humans. It has played and continues to play a key role in how we organise our living spaces. International, national and local conflicts stemming from the use of water show the importance this natural resource has in determining the way our territories are organised. Furthermore, throughout history, water shortages have, and continue to, hinder progress. It is therefore necessary to develop new attitudes to conserve the planet's water resources.

The protection and management of our water resources is closely related to the climate change we are already beginning to feel. Our water resources have already begun to dwindle and, if we are not careful, could continue to do so at an alarming rate.

Water policies should view this natural asset as a scarce resource, and water savings should be championed over wastefulness.

Water is a social, economic and public asset. Although it is limited, it is also renewable. Raising awareness should be a key component of these policies. We cannot forget that water is indispensable and both its quality and quantity are vital to our communities – one often influencing the other.

In Aragon, our history has taught us that the administration, distribution, and use of water are fundamental building blocks for creating an organised and productive society. Water is a source of knowledge and helps shape our living spaces.

Expo Zaragoza 2008 is undoubtedly a reflection of all of this...and much more. As a global, effective and supportive project, the Expo is also a cultural celebration of the fertile relationships between water and our society. Expo Zaragoza 2008 is open to contributions from around the world and, in return, offers a framework for reflecting on the most important aspects of water, its uses and its essential role in sustainable development.

It is an honour and a great satisfaction for me to invite you to witness and participate in this event. Welcome to Zaragoza, Aragon, and Expo 2008.

Juan Alberto Belloch Julve

Alcalde de Zaragoza

Presidente del Consorcio Expo Zaragoza 2008

Mayor of Zaragoza

Chairman of the Expo Zaragoza 2008 Consortium

Maire de Saragosse

Président du Consortium Expo Zaragoza 2008

The contents of this book – Water words. Víctor Viñuales – that you are holding do not only reflect the theme of the title, but also part of a city's dream. The calling card of a new Zaragoza; a road map for the future of a two-thousand-year-old city, with cultural roots steeped deep in European history, which, once more, has reinvented itself as a dynamic, welcoming, sustainable and entrepreneurial, creative and innovative place, where there is a high quality of life.

The 25-hectare Expo site brings together a large part of the qualities defining 21st-century Zaragoza. It is also, thanks to the participation of over 140 countries, autonomous regions and cities, as well as institutions and businesses from around the globe, an open and cosmopolitan space. It is an imaginative and surprising setting, stimulating both dialogue and reflection. And, of course, the Expo is a tribute to the new culture of sustainable development and responsible water management that we must join forces to create.

When the city of Zaragoza chose water as the central theme for the Expo 2008 project, it reflected upon its past, its identity and its position as a place where three rivers meet. It contemplated how water has been the catalyst that has converted Zaragoza into a greener place in greater harmony with the Ebro, Gállego and Huerva rivers and the Imperial Canal. Zaragoza is building its present and near future as a permanent forum for the creation of knowledge, research and development in the area of water management: in fact, it is quite safe to say that Zaragoza is the water capital.

Yet, above all else, the theme of water was chosen due to the critical importance that the scarce resource of water has – vital for life, essential for development – for everyone on the planet. The pressing issue of water management in our world today makes this International Exposition 2008 not only a necessary event, but an indispensable one. Expo Zaragoza 2008 will provide a forum for global debate on this unevenly distributed resource, and will allow for reflection beyond the traditional technical, political and institutional arenas to encompass all the members of our global community.

We all need water and, therefore, each and every one of us has a moral commitment to be aware of its extraordinary value to ensure it is properly and efficiently managed. This is the major case put forward by Expo Zaragoza 2008 and the central line of discussion running through the exhibition. It is also the message resonating throughout the different exhibition spaces, aiming to raise awareness of the values of saving water, solidarity, respectful use and responsibility.

Zaragoza welcomes you with open arms. We hope you enjoy your visit and join us in our city's efforts to spread the message of Expo Zaragoza 2008 to all the corners of the globe.

Víctor Viñuales

A TOOLKIT

FOR THE BUILDERS OF CHANGE

*For my parents, from whom i inherited the planet,
and for my daughters, Clara and María. They are
for me the everyday face of future generations,
those that will be inheriting our water planet.*

Introduction

This text is written for action. We know a lot, we do little. That's the drama of our time. Meanwhile, rivers are dying, often poisoned by our greed, children are dying and we look the other way, as if changing the TV channel.

These pages are addressed to the builders of change. Changes do not make themselves, changes are the children of the actions of men and women who, not satisfied with things the way they are, set to the task of building another reality. It is to these builders of change to a new pact with water, with nature and with ourselves, that this book is addressed.

The builders of change often become demoralised or squabble with each other. In both cases, change is halted. We will never make peace with water and with ourselves, we will never be able to give drinking water to all the inhabitants of the planet, unless we succeed in increasing the number of builders of change. We need more of them and we need them with greater expectations.

To change reality, one needs to want to do so, to have expectations that things can change, in the hope of boosting this change. Secondly, a great deal of tenacity and effort is needed: the force of inertia is formidable. Sustainable development does not come about through spontaneous generation merely over the passing of time. We also need the proper tools to open the gates to change.

The following pages suggest tools for change. Some have to do with the builders of change. Others have to do with the relationship culture

that these players need to have. Some are connected with the focus of action, and still others are specific ideas to be put into practice. All of them aim to sow the seeds of dialogue with the reader's experience as someone who is working for the new water culture and the human right to water.

Some of these tools have their origin in success stories, other in failures (and we builders of change have accumulated a good many of those). Some come from the work of the Fundación Ecología y Desarrollo, others from observing projects of a large number of organisations working to make peace with water and to give drinking water to all the inhabitants of the planet. All are answers to the question that our generation has to address: How can we rapidly and thoroughly change our way of relating to water?

Time is pressing. The list of disasters and the time wasted gives us little margin for sitting back. We must keep talking, debating, clearing doubts and confirming certainties, but above all, we must do more, quickly.

Today we know that environmental problems in many cases behave like a cancer, sometimes spreading slowly, and then suddenly there is a metastasis, by which time it is hard to fight it successfully. In many cases our eco-systems are on the brink of metastasis, and this is why this book is a battle cry, an urgent battle cry. The international community took eight years to ratify the Kyoto Protocol, despite the fact that it knew that time was of the essence in fighting climate change. We cannot afford this apathy, this indifference.

This book is not devoted to describing the world's water problems – much has been written in that respect – nor does it describe how things should function in an ideal world. The explicit aim is to provide

thoughts, ideas and encouragement for those working for change. It is time to act. It is our turn.

Part one

AS IT STANDS

What we can see

The scientists are saying it and so is the man in the street: the world's rivers, wetlands and aquifers, with just a few exceptions, are deteriorating. And that, in their own way, is what the fish and frogs are saying, too.

And as this water is no good for reeds, or trout, or bathing or drinking... its victims are growing. Over 4,000 children a day are dying from diseases related to the lack of drinking water. Country streams, which once quenched the thirst of passers-by, now have danger signs: not safe to drink. With just a few exceptions, it is safe to say that "wild" water is not fit for bathing or for drinking.

Our knowledge is improving, and so are our laws. Our leaders' approach has undergone a great change: they now justify new projects by invoking sustainable development. But we are not so convinced that this obviously massive improvement in their attitude to water is accompanied by a proportional improvement in their actions on the state of water.

Greater awareness than ever

Never in the history of humankind have we known so much about water, its management, its cycle, its pollutants, and so on. We have experienced many failures in the past in our relationship with water, we have perpetrated real disasters and we have also had successes. From all these experiences we have learnt a great deal.

Never in the history of humankind have we gathered so much technological and scientific skill. We are the first generation to send a spacecraft to Mars to see if there is water there. The range of potential solutions to water problems is vast.

Never in the history of humankind have we had so many economic resources. Never in the history of humankind have there been so many institutions, businesses and NGOs specialising in water and sustainability. Never have we developed such precise and sophisticated research tools for “visualising” the future.

The gap is growing

The gap between what we say and what we do is growing. The gap between the words emerging from World Summits (in Río de Janeiro, Johannesburg, etc.) and subsequent action is growing. We painstakingly construct international agreements, such as the Millennium Development Goals, to reconcile the wishes of the Third World with those of the First World, with over 180 countries committing themselves, but we have resigned ourselves to the fact that these agreements will never be complied with.

We have got used to the fact that what is said, including what is agreed to in an International Summit, is one thing, but what is actually done is quite another.

It is often impossible to understand why there is so much reluctance to ratify a commitment, an agreement, a deadline or a specific sum of money, when afterwards, if it is not complied with, nobody hands in their resignation. Life goes on as usual.

Among the have-nots, there is a growing distrust of the promises made by those in power. Scepticism, just like thick ivy, covers the wall

of hope. The scale of problems is growing and the will to solve them is withering.

And the grief is intensified by the conviction that water problems could be solved, if there were really any willingness to do so. We know how to, we can, but... And that is the hard reality of the current situation.

Vicious circles

When we delve into why something happens, we rarely find just one cause. All at once we find a set of factors, joined together like cherries in a basket, which influence each other, helping each other to make the situation what it is.

Why is it that in many cities in the First and Third world so much water is lost in the urban supply networks and in the homes themselves? Just one question, but several answers. Let's look at one or two: the city councils or public authorities do not invest enough because the politicians at election time give priority to investments that are more eye-catching, more likely to be photographed, above, not below the ground. The public do not use water efficiently because they don't pay the real price; water is cheap and the technology is inefficient because it is not profitable to renew it. Barely efficient technology is installed because the public authorities fail to pass binding regulations to force the installation of the best technology available. The companies that produce this more efficient technology come across many obstacles against placing it on the market, because it is not compulsory, and renovating more obsolete technology is not economically lucrative. The technology that is installed is sometimes not used properly by the public, because they do not know how to. The professionals in the sector (architects, developers, plumbers, etc.) do not install this technology because they are unaware of it. The city councils

cannot renew the supply networks because they cannot afford it. The politicians maintain these subsidised prices because they believe that the electorate will reject any political proposal to raise the price of water... and so it goes on.

We could go on and on finding reasons to explain the wastage of water in cities. They are all true and most of them are mutually dependent – they all explain each other.

Very often, failure to transform the reality has to do with the fact that action is taken on one of the factors, the rest stay basically the same, and finally partial change does not succeed in making a significant break in the vicious circle.

Vicious circles, as their name implies, like to perpetuate themselves and reproduce. It is as if they were a spring which we stretch out by making a great effort, and then, when we are overcome by fatigue, it goes back to what it was.

Climate change makes things worse

Climate change, as has been clearly stated by the Intergovernmental Panel on Climate Change (IPCC), makes its presence felt, above all, through water: more droughts, more flooding, more coastal areas threatened by the rise in sea level, the rapid disappearance of glaciers – the list goes on.

Consequently, existing balances will be upset with increasing frequency. A region that yesterday had customs, infrastructures, regulations and technology that were complementary, with no danger of conflict, will tomorrow, for example, begin to suffer recurrent droughts, and this balance will be shattered. Conflicts between users will set in.

Climate change brings more grief to eco-systems, plants cannot evade thirst, with more grief for living creatures, more grief and migration for human beings. Climate change breaks down the boundaries between economic, environmental and social factors. It affects everyone, it destroys everyone. Extreme drought, which removes any glimmer of hope, creates desperate emigrants who risk all they have, and they have very little, crossing frontiers and oceans in search of relief and a future.

To lessen our civilising impact on the biosphere, and reduce our greenhouse emissions, we would have to change a large number of policies, laws, prices, values and habits in a very short time. The latest United Nations Development Programme (UNDP) report states a figure that gives an idea of the urgency with which we would need to act: ten years.

The existing climate change and the one that is forecast forces us to adapt in order to suffer less. And we must adapt in a very short time. And break a lot of old habits. So many years doing things the same old way – and now we must learn anew and forget a great many things we learnt before: they are useless. What is more, we now realise that they are what has caused our misery.

To lessen climate change, to stop its negative effects growing, we must change with all speed. That goes for adapting to the consequences that are now inevitable, as well. It's not easy. It's not going to be easy, either.

The actors of change: pride and distrust

Governments often believe that to change reality, all it takes is the regulations they create. Businesses almost always believe that problems can more than easily be avoided with technology and money. Many

NGOs believe that problems can be solved by raising awareness.

Although in not so many words, each one seems to be saying that they can easily sort things out.

The NGOs do not believe in the sincerity of government commitments. Governments do not believe in the sincerity of NGOs. Businesses believe that the less governments do, the better. The NGOs do not believe in the good intentions of businesses. Businesses do not believe in the effectiveness and efficiency of the NGOs. The agents of social, economic, technological and institutional changes – public administrations, NGOs and businesses – watch each other with suspicion. Time is passing.

Much of the energy spent by the agents of change is aimed at stopping the initiatives of the other agents from going ahead. If we were to take stock of the energy and money deployed by businesses, governments and social organisations, we would find that over half this effort has been used in preventing the plans of the others from coming to fruition. Very often, this reactive policy is necessary in order to make progress. But, in view of the urgency, it is sad to see so much energy being deployed to put a brake on others' initiatives.

THE CHALLENGE

The 0.7% initiative cannot solve all the problems generated by the performance of 99.3% of the economy

There was a time when we agents of change laboured under a misapprehension: if every country contributed 0.7% of its GDP to development cooperation policies, we could put an end to mass poverty in the world. Today we know that that is not true. There was a time when we environmentalists laboured under a misapprehension: all we had to

do was protect places with rare flora or fauna. Today we know that that is not true.

Building sustainable development calls for a rethink on the whole of our production, distribution and consumer patterns. In the same way, coming to terms with water, making peace with the planet's water masses and upholding man's right to water in all countries cannot be achieved without readdressing the foundations of our system as a whole.

Therefore, we might say, in order to establish the magnitude of this challenge, that it is not a question of rearranging 0.7% of our society, it is a question of redrafting the performance of 99.3% of our economy and our companies.

We have wasted a lot of time

Figures are stubborn. The indicators of the planet's malaise are getting worse. The indicators of social malaise are multiplying. Climate change is making a situation which was already extremely negative much worse.

We have wasted a lot of time, time that is precious. There is a similarity between environmental problems and what Machiavelli said about tuberculosis – that when practically no one was certain that it was there and there were doubts about its diagnosis, it was easy to cure. Yet when everyone realised that it had installed itself in the sick person's body, and there were no longer any doubts about the diagnosis, it was very hard to cure.

This is what has happened to us with the world's water problems. When just a few ecologists and scientists ventured to point out the problems, the situation was easier to sort out. But now, when the entire civilised world recognises the gravity of the problem and the diagnoses are clear and beyond doubt, then the challenge is enormous and the

prognosis is uncertain. Today, cancer is in a somewhat similar position to what happened in Machiavelli's time with TB: our chances of survival depend on when we start the treatment. Many doctors begin a difficult exchange with patients with the expression: "If you'd come earlier...".

We've wasted a lot of time. The probability of successfully turning the situation round and constructing sustainable development in which we can make peace with water is not high. But we must try. And quickly, because every day counts, every day there are more victims.

We already know that it is not easy, that, as Ortega y Gasset warned us, reality is countervolution. We know that the power of inertia is vast. We have seen, in many places and many times, that it is one thing to say what one is going to change, and another actually to change it. In-depth, far-reaching changes are not impossible, but they are hard to achieve. In my opinion, they can only come about when there's an awareness of crisis, of danger, which gives us the strength to break with inertia and routine. The same goes for personal as well as social change. For micro-change and macro-change. The bitter aftertaste of a recent heart attack causes many people to stop smoking or to begin playing sport, thus breaking with the habits of a lifetime.

The political, scientific and media discovery that climate change is already with us has created an atmosphere of environmental emergency all over the planet. We all have to act, we have to act now. We may have the chance to make changes for the sustainable use of water in the world if, as a result of this general awareness of planetary emergency, we can, with hope and courage, build the social architecture required to motivate the institutional, economic, technological and cultural change that we need.

We face immense challenges: to change our energy pattern, our transport pattern, our consumption guidelines, our consideration for

water and rivers, to stop seeing them as short-term dollar-convertible cubic metres, and to start seeing them as the lifeblood of the planet.

We need to change our laws, because the world's governments must understand NOW that one of their main obligations as public servants is to guarantee the human right to water for all the inhabitants of their respective countries. Just as governments guarantee the right of assembly and the right to vote for all, they must guarantee that those who vote by right, drink clean water by right.

We need to change public priorities. If we can give drinking water to everyone by freezing world military spending for five days, let's do it NOW.

We need to stop looking at water, rivers, wetlands and aquifers with covetous eyes, bulging with greed. Our children do not deserve the persistent stealing of their right to enjoy natural resources in the future. The moral degradation involved in stealing the future from those who cannot defend it must stop NOW.

We have been promoting change for several decades, but the situation is barely improving and time is passing. The forces of the bearers of this dream of change are barely enough for the size of the task, against the strength of inertia, and for beating off the active resistance of the economic interests created.

This is why we have to work on two fronts, increasing the strength of the wind of change and the productivity of our efforts. It's not easy, and many people often feel they are shrouded in the mist of discouragement and despair. I'm not saying that there are no reasons for this. But a civilisation that, for the first time in the history of humankind, has the knowledge and power to provide all its members with water and make peace with water should not throw in the towel now. Not yet.

It's time, as Gramsci recommended, for realism in the valuation of reasons and data, but also for courage and hope to push for change. André Malraux said that the impulse of revolution was hope. That is what it is all about: making in-depth changes in a very short time: it is about revolution, the oldest, yet most up-to-date revolution, the revolution of water. And it is about calling for it with the impulse of all revolutions, hope.

Forget the perfect plan - we must act now!

We already know what is happening now, although we always need to learn more and increase our knowledge of problems.

We also know reasonably well what should happen, even if we do not agree with it. But to go from what is real today to what is desirable tomorrow is not a mental leap in the field of knowledge, it is a real leap that needs to be made by rivers, domestic supply systems, wetlands, and so on.

Frogs need to see that things are changing, that the world is coming back to what it was for them too. Those impetuous people who bathe in rivers need to be aware that it is a pleasure again. Aquifers need to find that they are no longer being filled with nitrates and pesticides. Children's stomachs, full of parasites, need to note changes, need to note that the new water no longer arrives loaded with problems, and that it helps them to live, not to die.

It's not our intentions, our wishes or our writings that change reality. Intentions, wishes and writings are all very well for preparing action, but they do not change reality on their own. What changes reality is our actions.

We must act now. Studying and debating are fine, even necessary.

But let's not allow that to stop us from acting. Debates on climate change have been dismal and depressing. No one was sure about the diagnosis, so we did nothing, not even what we were not certain about or knew was right. This situation cannot be allowed to continue. Uncertainty about some aspect must not paralyse our actions. Indeed, on many occasions, we only know about something when we do it.

When there is an emergency, and the world's water masses are undergoing a situation of emergency, urgent actions are required.

And, dear reader, another emergency situation is the fact that, in the time it takes you to read this page, three little boys, or five little girls, may have died from diseases directly linked to polluted water. Diarrhoea, dehydration – deaths that are avoidable, deaths that should not have happened, deaths that put our civilisation to shame.

Action now is not a call for hurried, confused action. Action now is telling it like it is. There are many actions that are safe, whose benefits are not in doubt, that have no known negative or dangerous side-effects. We have no excuse for not carrying them out. When there are actions of doubtful benefit, by all means let's think about them. However, when there is agreement and consensus on the benefit of particular actions, let's act on them. Let's work on them.

Often, the brake on change appears disguised as a virtue: a proposal to act on a global and integrated plan ends up, as an undesired side-effect, by delaying an action that is befitting and beneficial. This search for perfection only ends up in inaction. The drafting of a global plan is often used by public administrations as a substitute for action. While the plan is being drawn up, practical actions are halted.

Planning to guide action is necessary, a virtue. Planning to postpone actions is a vice. There's no contradiction in stopping a polluting outflow

while continuing to draw up a global plan to control outflows. Plans are not ends in themselves, they are very useful means for ordering and giving priority to our actions.

As St John of the Cross said, in the evening of life we will be judged on love. Adapting the sentence, we might say: in the evening of life, we will be judged on our works, not our plans.

Part two

THE BUILDERS OF CHANGE

Dream builders needed

Gioconda Belli is an exceptional Nicaraguan poet. One of her poems is called “Dream Bearers”. It is a very beautiful poem. It tells of the incessant wandering of those who dream of a better, freer, fairer and more fraternal world. I like the poem, but now we need dream builders. We need to dream, it is essential, but where we are most behind is in the matter of building what we dream. Rivers, and children with a thirst for clean water, are crying out for people to help them change their daily sorrow: the builders of change.

There are many people already working on the planet to make peace with water, who regret the repeated ill-treatment we have inflicted on rivers, deltas, aquifers, wetlands, lakes and all other water masses. There are many people working hard to ensure that every human being, as of right, has guaranteed access to clean water.

Many of them are to be found in local, regional, national and international institutions. Many public servants and politicians are making an effort to create general well-being in society and to improve its relationship with the biosphere.

Many people are working within civil society, in civic voluntary organisations, or from within the educational system, universities, primary and secondary schools.

There are many independent professionals who, in their jobs or as a vocation, devote their sleepless nights to building a new water culture, an effective human right to water.

There are many companies that have found a connection between their

business and sustainable development, and produce goods or services that have little impact on the environment. There are many others that are looking for ways to minimise their impact on the water cycle, because they understand that water masses are there to be used, but not to be polluted. There are many people within companies who carry out frankly contentious duties, but who are working to change their company's course towards sustainability.

The main agents of change are governments, who with their policies, budgets and laws have great potential for changing things; businesses, who accumulate very useful operational knowledge and resources; and NGOs, who sow the seeds of new values and a new culture. Alongside these three key agents, there are many others that play highly significant roles: these include scientists, the media, artists and universities.

We need more builders of change, and we need them to have more confidence in themselves, more confidence in their power to change things and more self-esteem. But we also need to ensure that this confidence in themselves does not diminish the recognition of what other social agents contribute to social change. We need a culture of collaboration between the builders of change. We need them to respect each other, to know how to discuss and collaborate at the same time. We need them to join forces, and multiply them. In short, we need the builders of change to assign themselves a new culture so that they can interact with each other.

Change can be built anywhere. Wherever there is someone who is pained by reality, who is dreaming of another reality, who has the courage to take the first step and the tenacity to go on, that is where you will find a builder of change. We need these people.

And we need them because there is no point if there is nobody prepared to change things. They are the whole essence of social change. Not money or laws or technology. A mobilised society is the heavy rain that brings changes, as the poet said.

All it takes is a minority

Many people are working hard to make peace with water and to ensure that every human being has clean water. They are a minority, say the pessimists. But all social changes have been introduced by minorities. The number is not the problem. All the major social advances that we have achieved were started by minorities. What is normal for society today was so for just a few in the past. From women's suffrage to State education. The idea that the public administration is obliged to guarantee access to drinking water in people's homes did not originate as a majority view. One might say that social change for the majority requires that it be tested in the "small laboratory of the minority".

Thus the widespread complaint that we are the minority does not hold water as an argument against taking action. It's always the few who promote changes.

The real problem is that many of those who want to change things do nothing, or practically nothing, to change them. The problem is that many dreamers of change do not take up their tools to build it. They grumble about the present and dream of a desirable future. Both actions are necessary, but they are not enough. The reality that afflicts us cannot be modified unless there is a third step: building change: moving on from ideas to actions.

The absenteeism of the dreamers of change is the real problem. They are wrapped in their own world, content to be shrouded by ideas,

and fail to join the ranks of the builders of change, who work in all weathers. Sometimes under the spring sun, other times in the rain and wind.

To make peace with water on the planet, to provide everyone living on it with drinking water, all it takes is a minority – but an active minority.

A NEW CULTURE OF RELATIONSHIP BETWEEN BUILDERS OF CHANGE

We are jointly responsible. We are both victims and victimisers

Every one of us uses water. That is true up to a point, but every one of us is a user of water, every one of us pollutes it, enjoys it and needs it. The same goes for rich and poor, men and women. And there is no economic activity that does not need water, either directly or indirectly.

The ubiquity of the resource, and the massive widespread need for it, makes water policy something special. We are all potential victims of water problems and we are all their victimisers.

For a long time in society, there has been a tendency for specialisation. Some organisations deal with one matter, others with something else, each focussed on its own specialisation.

However, the water revolution that we're talking about, involving a sharp swing to sustainability, driven by the fight against climate change, requires all the players to "get their feet wet".

Ensuring that everyone, wherever they live, has clean water to drink is not only a matter for development cooperation organisations. Anyone who is lucky enough to have running water at home, to be able to have a shower and wash off his dirt and worries, should do something, however small, to ensure that everyone should also have the chance to

drink without fear, to have the pleasure of being clean. Any city council, any company, government, clinic, or any other establishment should do what they can, no more, no less, to break this curse which we should all be thoroughly ashamed of.

The reconsideration of water, seeing it for what it really is, that is to say the source of life, the DNA of life, is only truly possible if the cultural revolution it entails reaches all bodies and every single person. Schools, farmers, businesses, children, the elderly – absolutely everyone must play their part.

A lot of potential change is not put into practice because of an attitude that is an obstacle: if the other guy doesn't do it, it will be of no use. The value of a unilateral action is negated. In debates about the Kyoto Protocol, this has been an aspect that has blocked, and will continue to block, commitments to action. If the United States, which bears a large share of the responsibility for causing and solving the problem, does nothing against climate change, anything the rest of the world does has no point, and does not solve anything. This reasoning can be summed up as meaning "if those who are most responsible will not do anything, neither shall I".

This is an understandable attitude, but it doesn't get us anywhere. Everyone is saying "after you". Nobody's doing anything.

In many societies one hears the excuse for inaction that goes along the lines of "if the council is not doing anything, what's the point in my doing anything?", or "if the farmers are not taking action, why should the councils?" Farmers say: "if major companies are not doing anything, what use is anything we do?", and the cycle of excuses for not doing anything just goes on for ever.

It is a vicious circle which can only be broken by expressing a diverging

opinion. An opinion that says “I am taking action because I am jointly responsible, and my action gives me the right to ask others to act” as a call for solidarity. This policy of unilateral responsibility has been one conducted by the European Union with climate change. This is the policy of joint responsibility that is essential for dealing with water problems.

In the past, people living in the villages in Spain were told that the streets would be clean if everyone swept their section of pavement. And that is the answer – everyone sweeping their section of the pavement, whatever their neighbour does, even if he does nothing. It’s as easy and as ambitious as that.

Unequal responsibility

We are all responsible, but not all to the same degree. With more power comes more responsibility. And whoever has more responsibility must exercise it.

The widespread call for collective responsibility must not be allowed to dilute something obvious: there are organisations, companies and institutions that have a much higher share of responsibility.

Electricity companies, for example, whose projects often turn rivers into mere caricatures of themselves, should reconsider their role in spreading the new water culture that we need. Private water utility companies, who are often challenged over their actions in cities in poorer countries, should reconsider how to reconcile their quest for profit, a feature common to any company, with satisfying the human right to drinking water.

City councils, who encourage citizens to use water efficiently, should practise what they preach. They are responsible institutions, they should act and lead the rest of society by example.

The general concept of co-responsibility should not hide the fact that the responsibility is unequal. This is why the powerful have to do more –they have more power, so they have more responsibility.

When those with more power and more responsibility do not act, two things occur. Firstly, “their section of pavement is left unswept”: they fail to contribute or participate. Nobody can fill their gap. Secondly, they play a decisive role in reducing social good intentions. Many people withdraw from participation when they see that those most responsible are not acting.

What the powerful do or fail to do is very important in itself, and is decisive for ensuring the mobilisation of society.

Others also play their part

Often, the lack of communication with other players, or disdain for them, is not only to do with a moral judgement on the goodness of their actions. There is often a factor that clouds understanding. And it's a simple one. We never understand the irreplaceable role of the other player involved in social change.

If businesses were to understand that the NGOs are the voice of the future, they would put a higher value on contact and dialogue with them. If they were to realise that many of their businesses were founded on a former complaint by the NGOs, they would study what they say to get a whiff of the future, to guide their future investments. If businesses were to understand that water treatment and purifying plants, water meters, systems for efficient water usage, and so on, were mainly claims made by social movements and not-for-profit organisations, they would cultivate their friendship more.

If the ONGs were to realise that in order to spread an idea, to make

it a reality for the majority, intervention by businesses was essential, they would be more prepared to collaborate with them.

If the governments of the world were to realise that, as opinion polls repeatedly state, people believe in ONGs more than in governments, they would give their blessing to strategies aimed at promoting the values of sustainability among the public, and would spend less money on their official campaigns.

The most crucial relationships are those between the “old” players, accustomed to interrelating and understanding each other, and the new player, social movements, NGOs. But the changes that need to be promoted are huge and pressing – we need to produce mass social mobilisation, we need to “wind up” the social body. And this task is very difficult to carry out effectively without the participation of a structured civil society.

We know as well that to ensure clean rivers, we need appropriate laws, money, proper purifying plants, but above all, commitment by the people. There will never be enough money or policing to offset the collateral damage that is caused by a lack of civic commitment. Water’s problems cannot be solved by just one player. Unless others contribute, there is no solution.

The day that governments, businesses and NGOs finally see the stark face of existing problems (polluted rivers and aquifers, millions of people with no drinking water, droughts, floods – the list goes on), and then look at their own hands, the strength of their hands, then that day they will humbly be willing to join in and collaborate.

We need a culture of selective collaboration between the agents of change

We need a culture of collaboration between the agents of change. If they only squabble amongst themselves, something that is hardly infrequent, a great deal of energy that could be put into change is wasted or cancelled out.

We won't have enough time to change things if we only devote ourselves to putting a brake on other people's initiatives. If energy, resources and talents are expended in destroying the initiatives of others, after a great deal of work, when we look up, we will see that society has made very little progress.

At any event, this culture of collaboration should be guided by the same criterion as for love and friendship: to be with whom I want, whenever I want. And with freedom of choice as the watchword. Naturally, looking at it pragmatically, there are projects that require the participation of just one player. Furthermore, there are projects that are not feasible without the participation of a particular social agent.

It's obvious that, given the outrageous generalisation that there can be no cooperation with the other sector, it is equally outrageous to suggest that it's a good thing to collaborate with anyone in another sector on any issue. In short, what we are advocating is a culture of selective collaboration, in which the cement of lasting relationships and freedom of choice are guaranteed. This way, collaborations will be useful and durable.

But this new selective collaboration culture is not produced by spontaneous generation, but from shared efforts based on appropriate approaches.

Debating and collaborating are not incompatible activities

We have been brought up to see things as being black or white, with no greys in between. Everybody else is split into two, either friends or enemies. We either agree one hundred per cent, or we disagree one hundred per cent. We need to be more complex; we cannot go on thinking with the vestiges of a reptile's brain that we all have in our heads. We need an approach that is more elaborate, more finely-tuned, more subtle.

In order to face successfully the vast challenge before us in the twenty-first century, we need to break away from the ancient history of relationships we maintained in the nineteenth and twentieth centuries. We need businesses, public administrations and NGOs that can hold debates and discussions on what separates them while at the same time keeping open lines of collaboration and shared work with regard to what they agree on. That's the challenge. Otherwise we shall be wasting an infinite amount of social energy, which we can ill afford.

We do have some positive examples of trans-boundary collaboration between companies, NGOs and governments, but they are the exception, not the rule. In one of the United States there is an association that promotes efficient water usage between utility supply companies and ecological organisations, with equal representation from both sides. They operate through consensus.

Water matters are complex and multi-faceted, and so it is hardly surprising – in fact it is a good thing – that there are different approaches and options to solve a particular problem. There is total transparency, debate, information, differing opinions. But we also know that, alongside this evidence of differences, there are areas of agreement that allow for working together.

We shall never be able to meet the challenges accompanying sustainable water use in the twenty-first century unless we develop the ability to discuss and work at the same time.

The world used to laugh about a major dignitary of whom it was said, in order to emphasise his intellectual limitations, that he could not walk and chew gum at the same time. Governments, businesses and NGOs must rapidly overcome this childlike phase, this collective handicap, in which it has been wrapped in recent years, and learn to work and discuss simultaneously. A great deal depends on it.

The others are something else, and what's more, nobody is perfect

In many cases, what we find bothersome, what we cannot understand in others, has to do with the very substance. Many companies complain that the NGOs are not very professional (sic). Many NGOs complain that businesses want to make money (sic). Many governments complain that the NGOs almost always criticise their actions and do not really represent the citizens because nobody has voted for them (sic). When judging others, one of the biggest problems is the deep-rooted lack of understanding: nobody properly understands the role they perform in the way society works. Understanding others, what they can and cannot do, their limitations and their potential, is essential for building up effective collaboration.

Understanding deep down to the heart a simple but often forgotten truth – that nobody is perfect – also helps to build up this selective collaboration culture of ‘I’ll work with him but not her’ and ‘I’ll collaborate on this, but not on that’.

Forgetting this platitude has done, and still does, a lot of damage to change dreamers and builders in water policy. We very often demand

in others a behaviour that is sublime, but which we do not have. We easily excuse our own shortcomings, but never understand why others have them.

Applying the principle of “humanistic realism” – businesses, governments and NGOs are not perfect, some are better than others, but always humbly recognising that errors and shortcomings touch us all – would help us to build more solid and longer-lasting collaboration relationships.

The relevant question to judge the suitability of a collaboration is not whether that organisation is perfect or not, or whether it belongs on the list of the righteous or the impure. The relevant questions are: Is the organisation we are not sure about better than the average in its sector? Is the project interesting in itself? Does the organisation follow a line of positive progress of change? Will this collaboration be useful for society?

I know that these are less than absolute questions, less sacred, but changing the world, the reality of the world of water, the reality that affects specific people, specific living creatures and specific eco-systems might be utopian, but it also has its pragmatic aspect.

Applying the principle of the benefit of the doubt

The Spanish Constitution, like others in the world, confirms the principle of the benefit of doubt as a guarantee for its citizens. For a start, a person is innocent unless proved otherwise. That is the purpose of a judicial structure, to ensure that this principle is not breached in social or government practice.

Yet this very basic principle that is declared in the founding laws of many countries is not applied in most of the actions of the three main

players in environmental change. Many decisions taken by businesses, governments and NGOs are coloured by prejudice regarding the others.

It is very difficult to initiate a relationship on the basis of such a level of distrust. It's unlikely that a collaboration can be built up when the potential collaborators suspect each other.

It's one thing to think, discuss and argue that a particular organisation has committed an error, and quite another to believe that the organisation had malicious intentions, and that these intentions were the reason for the error. That makes for a one-sided argument. I'm not claiming that malice doesn't exist, or that criminal behaviour doesn't exist; what I am claiming is that, for a start, we should think well of others and treat others as we would like them to treat us, without prejudice about intentions.

This initial condition is a subsoil in which fruitful collaboration can certainly grow. Not even weeds will grow in distrust and suspicion.

Every action is adulterated

When we do something, when we move on from dreams to deeds, when we move on from the plan to action, we necessarily “betray” our intentions. This is what happens to us, and to others as well. We find justification for our own “betrayals”, but it is harder to find it for those of others. Naturally, in life there are betrayals and “betrayals”. There are occasions when the original idea completely disappears when it is brought to fruition. In other cases, it's a simple matter of natural erosion that any idea has when we try to act on it.

This is an old, well-known issue, easy to explain and understand, and it is responsible for much of the conflict that exists between the agents of change.

Anyone crossing over from the comfortable position of giving opinions on what is happening, to actually making things happen, must be prepared to accept two pains: the pain of not having done things as they were originally conceived, and the pain of seeing how those giving their opinions comment, sometimes aggressively, on the adulterated actions so painstakingly carried out.

Both pains and the emotions they arouse are responsible for the climate of distrust that compromises the creation of chances for collaboration between agents of change. Accepting that every action is adulterated would diminish aggressiveness towards the actions of others and increase our understanding of them.

Acknowledgement and gratitude

One of the bugbears that makes collaboration difficult is the feeling that I have seen in many faces, that others fail to recognise or appreciate what you're doing; they only concentrate on what you're doing badly, a blinkered approach that only sees the other person when he is a failure. And I've seen this lack of recognition of what has been done well in the faces of public servants, social leaders and businessmen. They all suffer it as victims, but they are sometimes unable to see that they are also victimisers.

Relationships would greatly improve if the agents felt appreciated for what they do well. Then, after the back-slapping, criticism would be more legitimate. In this way, it would be made quite clear that specific actions are being criticised, not those who have carried them out.

Many NGOs feel that governments fail to appreciate their huge efforts to bring cultural change. Many authorities feel that the NGOs do not see anything positive in what they are doing, that everything is going

wrong, that they never get it right. Many businesses have the idea that what they do is never enough, that they are always wrong and are treated as alleged criminals. And they are all very possibly right in their perceptions.

Seneca said that gratitude was the greatest of virtues, and possibly the mother of all virtues. This lack of gratitude for what others do is poisoning relationships. Sometimes it is agents from a different camp that show ingratitude, and sometimes they are from the same camp. And that's when it hurts the most.

Maximum tolerance with friends and near-friends

Here is something paradoxical, but very common: discussions between builders of change often get very heated, so much so that they appear to be enemies. Yet in fact they are not, because they are working for a similar liberating aim.

These discussions not only take time, their fundamental effect is, above all, to inject life into those days when little progress seems to be made, and to take in one of the most valuable substances for the path of change: the enthusiasm of those walking the path.

The pain of criticism from those who should be friends is much more intense than any other pain, and drains a good deal of energy out of the builders of change.

We need to develop a tolerance of culture, respect for the way others are trying to change reality. After all, nobody can be absolutely sure that their proposal is the best one. It is only at the end, once time has passed, that the effectiveness of the actions can be truly judged. Only history can speak clearly – after the event.

Respect, respect... and once again respect

There are builders of change who happen to live in the northern hemisphere. There are builders of change who, again by chance, happen to live in the southern hemisphere. Often they build up a relationship and there are northern hemisphere organisations who take part in development cooperation projects in poorer countries. That is all very well.

But sometimes there are problems. The dialogue between governments and NGOs that address problems and reveal poverty, and NGOs and governments that provide euros or dollars, is not a balanced one. It needs to be remembered in this meeting of intentions that what it's appropriate to do in the Third World should be decided by the inhabitants of the Third World. It needs to be remembered that the solutions that were effective in one country, if indeed they were effective, are not necessarily effective in other countries. It needs to be remembered that impoverished countries have the right to discover their own way, their own development. It needs to be remembered that, for a start, the ones who are most closely acquainted with the problems and solutions of a country are the inhabitants, organisations and institutions in that country.

It's not enough just to have good intentions. It's not enough just to show solidarity. That has been the recipe for real disasters. Proper help needs to be given, and respect shown for the southern hemisphere's institutions, society and organisations. It's as simple as that.

The need to build two-way cooperation

The example shown by the richer countries could well serve the builders of change in impoverished countries. But the reverse also holds good. The northern hemisphere needs changes, for its own interests and to attain sustainable development on the planet, and many of the answers

it needs come from the southern hemisphere. We need to listen to the southern hemisphere. We need to build two-way cooperation.

Technological innovations, which come about as a sub-product of the large amount of economic resources invested, usually come from the northern hemisphere, but in recent years, social innovations are arriving from the southern hemisphere. It is very important for the northern hemisphere to pay attention to these cultural changes; it needs to change, it needs answers.

To find answers, the builders of change need to search everywhere, in both the north and south. Northern organisations should break out of their habit of looking for solutions for the future of developing countries in the history of developed countries. And southern organisations, NGOs, businesses and public authorities should also look to see what developed countries have done. They do not have to repeat their errors, they should make use of the advantage of time. They can avoid those errors.

A good example is the fact that many southern countries, thanks to the errors of northern countries, can implement integrated management of groundwaters and surface waters.

More listening and speaking to others

There are few actions cheaper than talking, and few more useful. There is no chance of collaborating, mutual understanding and working together if, as a prior requirement, we have not talked with the other party, if we do not fully understand their hopes and fears, their reasons and, above all, their emotions.

It's true to say that water shortages in various areas of the world are an important issue, but nobody says much about dialogue shortages between companies, NGOs and governments. There is no chance of

creating the collaboration culture that these times require, unless we significantly increase the time devoted to understanding and listening to others.

Currently, at least as far as more recent and problem-filled relationships are concerned (between businesses and NGOs, between governments and NGOs), dialogue only takes place when there are conflicts, but there is place for standardised dialogue.

Distance and non-communication help the weeds of distrust to grow. And if the weeds of distrust get too high, the paths of collaboration are lost.

Trusting society

We have said that there are three key agents, but in order to produce change, a mental and physical change in the five continents, so that we can quickly settle past mistakes and finally make our peace with water and with ourselves, we need to actively involve society. In order to make good progress, we need to generate an unprecedented civic cooperation. For example, what about a network of water course supervisors, armed with SMS or e-mail? Nothing could get by this type of social monitoring. If a problem is massive, strong social involvement is required to solve it.

All organisations, businesses, governments and NGOs, become conservative with time. Civil society is the breath of fresh air that blows away their doubts and brings about change. Generating this breath of fresh air should be the express aim of governments, NGOs and even businesses. Without this social tsunami to stir up inaction, institutions, laws and obsolete habits, we shall not be able to carry out so many tasks in such little time.

If governments detect citizens' agreement or pressure, they will, for example, raise water rates, invest in maintenance works, ban criminal

practices and promote projects for change. If businesses feel that they are being examined by consumers over their policy regarding water courses, they will take measures and devote more resources. With society watching, talking and acting, changes will speed up.

Part three

CRITERIA FOR ACTION

Creating vicious circles

To resolve a problem with multiple causes, we have to set up a multi-solution. And wherever there is a vicious circle operating, we need to set up a virtuous circle. We need to understand the relationships between technology, values and laws. We need to be able to perceive their reciprocal dependencies, how they are linked together. Problems are linked, but so are solutions. And that discovery is a sign of hope.

There is often a skewed approach when perceiving solutions. Businesses believe that everything can be sorted out with new products and technologies. Public administrations think that a cute new law will fix everything. And NGOs often believe that the answer to everything is awareness-raising. Everyone is partly right. Without a cultural shift, changes will not be long-lasting; without a reform of the regulations, there will only be partial changes; without new technology, certain problems will be hard to solve. This shared truth should bring about more complementary, more holistic analyses.

Another flaw arises from the low degree of interdisciplinarity that exists between the approaches. The engineer thinks only of concrete, the biologist of bacteria, the sociologist of social organisations, and the lawyer of regulations. They all have highly significant approaches, but

they are only partial, insufficient ones. If we were to simultaneously set up a reform of regulations, cultural awareness-raising, a technological change and a change in the prices involved in the problem, then we would be creating a virtuous circle with long-lasting potential.

There is no single cause, no single solution. We need to act on all the factors that have brought about the current situation so that a change in one factor can be a reinforcement for change in the others.

We need to change the regulations to bring about a change in technology and behaviour; we need to charge higher prices to create funds that will finance necessary investments; we need to bring about cultural changes so that technological change is not boycotted by the apathy of the population; we need to train professionals in the new standards; we need to encourage the market so that manufacturers, distributors and retailers offer goods and services that are more sustainable; we need to ensure that the education system teaches the values of sustainability, and that it be a living example of commitment to the environment. We need to ensure that the public institutions' actions do not contradict their declarations of intent.

All these factors influence each other, and we need to ensure that their reciprocal influence favours change, forming a virtuous circle that will "sow" sustainability.

It frequently happens that the "original sin" of our training or our membership of a sector of change builders means that we do not appreciate factors that are furthest away from our own concerns. But the good technology specialist ends up realising, after a few failures, that public cooperation is essential for technological change to have the desired effects. And the NGO involved in environmental education soon sees that the good intentions of those being surveyed never fully change

the vital statistics of the planet. What changes pollution in rivers has a great deal to do with the chemical properties of the pesticides and fertilisers used by farmers. And to follow this example, the change-over to ecological agriculture has a great deal to do with the public subsidies introduced, not just with the leaflets handed out to consumers. Much of the effort expended on change has been useless, or almost useless, because we have lost sight of the fact that problems are interrelated, and we have acted focussing on only one aspect of the problem, while the rest of the aspects are off our mental map. In the end, change to a partial aspect cannot counter the multiple influence of all the other factors that “worked” to give birth to the initial situation. Vicious circles are only truly broken by creating a new virtuous circle.

One of the things that ecology has taught us is that the right focus for understanding the biosphere is the systemic approach, which explains reality by understanding the relationships of its components. Similarly, society can get along better by understanding the relationships between the players that are its components.

Doing away with the vicious circles that we have created in the biosphere and society requires, if we want the new situation to be long-lasting, the construction of a virtuous circle that fosters sustainability. This creation of sustainable virtuous circles calls for understanding and dialogue with all the social agents involved in the maintenance or modification of these change factors. True change will come about not because we might have done the right thing. True change will come when governments, citizens and businesses work with a shared vision, and when each action reinforces what the other agents of change do.

Thus, creating a virtuous circle calls for active, open dialogue with all the other agents of social change. It will be necessary to complement

the efforts of businesses, public administrations and NGOs, and to do this it is essential to understand their role, their potential, their abilities. Creating a virtuous circle is possible if there is this collaboration culture that we advocated earlier.

Supporting leaders: creating a network of accomplices for change

Change comes about through imitation, but for imitation to exist, society needs innovators to imitate. People who boldly lead from the front. Setting up this network of accomplices for change is a fundamental task if we want success in the painstaking job of transforming the way things are.

In fact, social changes have always been initiated by tiny minorities. Once it has been proved, on a small scale, that change is possible, it becomes widespread. This happens with technological innovation and with social innovation as well.

This minority of social innovators exists – it is a question of inviting people to join it. Before the founder of Linux software launched his challenge, there were already thousands of programmers who were selfless voluntary participants in the initiative. But, to get itself noticed, this minority needed to centre on an idea, an invitation.

Most of society has a justifiable tendency to cling on to habit, to proven truths. This is why, at the outset, their response is scepticism and reserve. The way to overcome this resistance to change is with the proof of reality, not so much with words. This is why social minorities are essential for sowing the seeds of change in the ever-sceptical mind of society.

The minority harvests the honour that history reserves for pioneers, but it also harvests the greater number of problems that history reserves for its pioneers.

An innovative society is one that does not penalise this innovating minority –it stimulates it. Institutions, which are often not best placed for promoting change, should not stand in its way– it should encourage it.

In the north-east of Brazil, an NGO tried out a rainwater cistern to provide drinking water to homes in a region with recurrent drought problems. They tried out the first phase of the project with 25,000 homes, and now they have discovered that the proposal worked, they have since expanded it to cover as many as one million homes. Start small, start with those who are most convinced, and then spread the proposal to the majority. The majority put their fear of change at rest when someone close to them tries the new practice, the new technology.

These leaders of change are to be found on all fronts. There are social innovators in the institutions, such as technicians and politicians. There are leaders of change in businesses, the media, universities, schools, NGOs, sports teams and the church. Innovation will vary depending on their role, their position, their location in the world, but wherever these innovators are, they need to push the envelope out as far as possible.

Sometimes, as a result of a type of substantive pessimism about “the human soul”, we do not have faith in the fact that there may be people who want to get embroiled in an innovative project. We think that, unless there is guaranteed profit from it, nobody will want to practice sustainability. Far from it. History is full of altruistic actions, many of them conducted when there was a high risk for the innovators.

Giving prominence to these leaders of change, supporting them and fostering interrelationships between them are the three essential strategies for consolidating the first wave of changes, the one that comes before the tide of the majority. Where the wave does not reach, neither will the

tide. The quantity and quality of the innovators provides a forecast of the extension and depth of the social change that will occur in society overall.

The great god money must help the god of love

Many of the problems that we suffer in water management are connected with the fact that, in practice, there is a contradiction between private economic interests and the general interests of society.

It's quite common, for example, that a company finds it more rational and cheaper to pay a fine for polluting rather than treating its waste. It's quite common that a household, a hotel or a school finds it difficult to afford water-saving technology.

The specific formula for water rates, which often prioritises fixed costs, does not clearly reward those who are making great efforts to use water efficiently.

This situation means that, in practice, the horse representing good intentions and general interests is pulling the cart of social change in one direction, while the horse representing economic interest is pulling in the other. It is usually the more muscular horse, the "money-driven" horse that wins, and the general interests are dragged along dusty tracks.

The final result is that change does not make any progress, or very little, or makes progress in words, but the deeds are stuck in the quicksands of economic interests.

When we think of economic interests, we think that it is only commercial interests that are holding back change to sustainability. This is not true: city councils, citizens, schools and farmers have no economic incentives to change, either – the current situation is not moving forward, or if it is, only very little.

Good intentions and altruism have very narrow shoulders to bear the entire weight of change. We need to strengthen them, so that they are not alone.

We need to construct social processes in which good habits are encouraged and where the business that does not pollute rivers sees a rise in its profits; where the ecological farmer, who does not pollute aquifers with pesticides, sees higher end of year returns than his neighbours who do pollute them; where a university that reduces its water consumption sees a rise in its annual balance; and where the town that reduces its water consumption also makes a big reduction in its water bill and is rewarded with better government subsidies to renew its urban supply network.

And, likewise, whoever allows his behaviour to violate the general interest should suffer, as well as the specific punishment laid down by the law for this, a considerable fine that will make him reconsider his action.

This will ensure that reasonable people will find no reason to behave in a way that will harm the environment.

Basically, we are talking about applying the tried and tested lesson: punish the bad guys and reward the good guys. But this simple, understandable issue is not what is happening today on many occasions. It is not unusual for the good guys to be seen as stupid in their own eyes and those of others, and the ruthless guys to be seen as smart.

A great deal of social energy is being wasted because there are people, institutions, businesses and organisations who are driving the cart of change towards sustainability, and other people, institutions, businesses and organisations, generally more numerous and more powerful, driving the cart of social change the other way, into the past, by maintaining unsustainable development.

The setting up of economic incentives, adapted to the particular situation of each organisation or social sector, needs to be aimed at ensuring that the vast amount of energy that exists in society works towards a common end.

Putting the entire burden of change on good intentions and generosity slows down change and creates more problems. The great god money must help the god of love. Together they can do it.

Using the most eloquent discourse: our actions

There are a lot of preachers in the world who tell us what needs to be done. They can be found in churches, NGOs, public authorities, trade unions, universities and schools. Almost all of these agents' texts contain the truth about what should be happening.

Their texts and speeches almost always say sensible things about what should be done to ensure more efficient water usage, in order to preserve the quality of the rivers and to supply the millions of people in the world who lack it with clean drinking water. But there is still a small problem: all too often, actions contradict their words.

This gap, sometimes enormous, between what the preachers say and what they do puts a firm brake on the potential for change. At the end of the day, we all take more notice of what we see than what we hear.

This problem is particularly serious in the case of the public administrations, who continually launch information and awareness-raising campaigns advising the public to carry out actions which they themselves ignore. Similarly, there are very few school textbooks that do not talk about sustainable development and efficient water use, ideas that are contradicted as soon as the pupils close their textbooks and see what the school facilities are like.

And so children and adults learn the old cynical maxim: “Don’t do as I do, do as I say”.

However, even at the cost of speaking less, if the actions of these organisations were more in line with their words, social awareness-raising would be more effective. ‘Less talk and more action’ should be the motto of the public administrations and preachers of the new society. It is reasonable to accept the fact that there is a gap between what should happen and what is actually the case, between what we say and what we do – nobody is perfect. But we are talking about the fact that often there are no areas of connection between words and deeds. The very city council that asks its citizens to save water fails to apply any measure to save water in its own buildings.

A responsible city council first reforms its facilities, and then encourages its citizens to do the same. A responsible NGO first reduces its waste, and then demands that a biological treatment plant be installed in its city.

What’s more, when we start to practice what we preach, we are more comprehensive about the imperfections of others, because we are seeing with our own eyes the difficulties of social transformation: he who practices something has more knowledge and understanding. Most of the loss of credibility that governments have undergone nearly everywhere in the world is due to the loss of confidence in what they say. I don’t believe in you, their citizens seem to be saying, because I can’t see you.

There is no way of mobilising society for change unless unless its confidence in those who proclaim it is restored. This confidence is achieved by increasing the coherence of all the social agents promoting transformation.

Focussing our energies on the actions that produce most changes

As part of a programme to improve water efficiency there, the city of Bangkok, Thailand, selected potential water-saving actions, ordered them according to their water-saving potential, listed them according to their cost-benefit ratios, and then examined them for their social acceptability. Based on these “filters”, from dozens of actions, they ended up giving priority to a small, manageable number of initiatives.

Bangkok’s approach can easily be adapted to many other territories and water-related policies. We can never do all that can be done, we never have all the money required, we never have enough time. This is why the world’s agents of change must devote time to selecting which actions are the most useful, most productive, easiest to implement.

There are actions which inspire others, whose change is a driving force for the rest. These are the ones we need to concentrate on. We are not gods; we cannot do everything we would like to – we have to choose. There is nothing wrong in not doing everything we would like to, or everything that could be done. But we must avoid spending limited resources on initiatives whose result is uncertain, which stop us from taking on board proposals that are useful and fruitful.

Change in two stages: intentions first, then the law

With social change, institutions are conservative – and so are people. Very often, public administrations are aware that they should pass new regulations and impose such-and-such a technology, such-and-such a practice, but the fear of failure stops them.

One way of escaping from the mire is to organise the change in two phases. The first phase consists of encouraging the innovators to test that the new practices are good, possible and reasonable from an

economic and social standpoint. The second phase consists of using the experience and knowledge acquired in the volunteer phase to formulate binding regulations.

This two-fold, two-phase change has various advantages. It gives the public administrations the certainty that the new regulations can be made binding. It also provides them with a highly realistic test bench, by way of a social laboratory. This means that the new regulations are more likely to be useful. It provides the innovating minority with the usual problems associated with being pioneers, but also with extra social and institutional recognition.

Making the consequences of our actions visible, even though they may be a long way from us

Our civilisation is based on transferring harm to third parties. Either in time or in space. There are unscrupulous people who know this and do it. They are a minority. Usually, people are unaware of the consequences of their actions.

In a global world, it is hard to be aware of the chain of causes that occur. Many of them can't be seen. Are farmers aware that there is a relationship, below the ground and over time, between the pesticides they use and the shutting down of the source of natural clean water that there used to be in the village? The answer is often no. Are couples aware that by giving each other a gold ring as proof of their love, they are contributing to the mass pollution of many of the planet's rivers? Almost certainly not. Are the millions of wearers of modern cotton t-shirts aware that, to grow the cotton, unless it is being grown organically, aquifers are being seriously polluted?

In order to make progress in protecting the planet's water masses, we need to make these causal connections visible. We need to make visible the relationship between our actions and what is happening in rivers and wetlands, near and far, today and in the future. Today, many of these actions are hidden from people's eyes by the soil, physical distance and time.

TWENTY-FIVE INSTRUMENTS FOR CHANGE

Taking advantage of previous experiences and building on them

If a firm in Boston invents a good technological solution, it may possibly be found two years later in all the markets in Kolkata. One way or another, consumer capitalism has very swift formulas for taking advantage of what others have invented, and it builds on it.

But if we examine the field of social innovations, many of them successfully developed by not-for-profit organisations, either governmental or non-governmental, we very often find that the successful experience developed in Mumbai has not, after some years, been copied or adapted in Kolkata, so that those who are facing the same problem once again expend what little energy they have on “inventing” the same solution, or something similar.

This wasting of the lessons and “solutions” that have already been discovered is very widespread. It's only on very rare occasions that research is conducted on what others have successfully achieved, or recognition given to the work of the pioneers, or that this work is somehow incorporated into the new project to ensure the optimum transfer of knowledge, or that the culmination of the previous project is built on.

This scant use of previous experiences means that energy, talent and

money is being thrown away. This recognition of others' work, either in terms of image or money, would help to speed up social changes and enable better use to be made of the resources available.

The rate of change to sustainability in water usage would speed up greatly if new projects included and made use of the lessons learnt from previous experience.

Ensuring that water policy is a priority for governments

In all societies, rich or poor, there is a great deal of energy and money.

There is a great deal of room for improvement in Pakistan's sanitation and water supply systems, yet, as the United Nations points out, this country spends 47 times more on armaments than on its water policy. It's not just a problem of money – it is above all a problem of political priorities.

In recent years Spain has managed to become number one in the world in terms of the number of kilometres of motorways, dual carriageways and high speed rail lines. However, it is not number one in terms of the health of its rivers, the motorways of its biosphere. So it's not a problem of money, it's a problem of political priorities. It's a question of whether Spain's society and government place more value on good tarmac for its cars than on maintaining its rivers in good condition for fish, bathers and drinking water for its towns.

What can be done with regard to governments' political priorities? What can be done to influence the allocation of government budgets, the decisive test for a government's commitment?

Democratic governments are regularly examined every four or five years. Political parties stand for election with a manifesto, the citizens vote, and those elected apply their programme during their term of office.

This is how things work, when democracy works. This is not always the case.

This “normal” functioning has a structural snag: the anomaly between the short term, the length of time that governments are usually in office, and the long term which is often required for effective water policies. How can we gain political priority for water policies? This has always been a highly significant question, although its reply has particular nuances in every country, depending on their political culture, electoral system and institutional structure.

One option is to take advantage of any crises that comes along and cause public opinion to open itself up to new approaches and change the order of social and budgetary priorities. Another way, as we have also already mentioned, is to cause crises, by dressing up long-standing problems in new clothes that will be noticed by public opinion and the media.

All these ways are necessary. Exerting political pressure is very useful for taking advantage of the annual budget debate in parliaments. Budgets are the clear, unmistakeable summary of the priority that a country gives to a particular policy. The higher the budget, the higher the priority. It's as easy as that. The importance of this debate is often not perceived by society, and it will be necessary to socially educate the public. At the end of the day, what is discussed in parliament is how to use the citizens' economic resources.

With countries that receive external aid, the donor institutions and the social organisations in the recipient country can exert joint pressure to demand that any increase in external aid be accompanied by a greater budgetary commitment by the recipient country. It is not reasonable for a country to ask for aid to supply its inhabitants with drinking water, only

for it to spend what it can and cannot afford on arming itself to the teeth. First World NGOs have often funded development cooperation projects managed by Third World NGOs. We have asked them for effectiveness and efficiency. And in many cases they have become organisations with a great capacity for management. That's not a bad result. However, sometimes an undesired effect is created: they abandon their traditional role of raising social awareness in their society and influencing public policies. They run their small project better, but their role as instigators of social and institutional change has weakened. They are very useful on a small scale, but they have become less effective overall.

Public policy expresses the importance that a country gives to a problem. One way or another we need to ensure that governments give priority to water policies. We probably need to take advantage of regular occurrences, such as elections or the annual budget debate, as well as unexpected occurrences, such as untimely crises.

Taking advantage of crises

Unfortunately, the cries of pain of water in nature, and of mankind for water, are getting increasingly louder. Crises occur where the original situations are aggravated and thus they pass from the inside pages to the cover of the world's newspapers.

Everyone remembers images of Hurricanes Mitch and Katrina, the Aral Sea, the Sahel drought, and so on.

Many of these acute crises are easy-to-understand examples of the negative consequences arising from our pattern of development. In our social and personal lives, there is very little looking ahead, as recommended by the Club of Rome. Very often, following the terminology used by one of the Club's reports, we learn through shock, after deep

grief, after a crisis. Sometimes, this grief for what has happened is transformed into a decision to avoid these situations in the future. It is then that institutions change their policies, their priorities, and societies change their approach to the reality. On these occasions, one way or another, we take advantage of the crisis to change; the crisis is useful, it immunises us, so that we don't relapse into fresh traumas.

However, there are many occasions when, in the words of the old saying, "man is the only animal that can stumble twice on the same stone", and we forget the lessons taught by grief, we fail to correct our course and keep on walking towards its repetition.

The change bringers need to take advantage of the fact that crises arouse emotions, and with the heat of emotions, reasoning that previously failed to make itself felt in society. This reasoning suddenly finds shelter and is welcomed, and from there on, policies, budgets, institutions and culture change.

Spain, for example, managed to supply drinking water to all as a result of the grief and shame arising from the outbreak of cholera in the Jalón valley. Many of the successes that we are proud of have come about as a reaction to a grave crisis.

Crises, as wise Chinese culture has it, are opportunities for change that fate offers people and societies. With them, societies can either resign themselves to grief or react, and transform that grief into a determination for change. The change-bringers, wherever they are, be they public administrations, citizens' associations or employees in a firm, need to ride the wave of a crisis to take advantage of the energy it generates, and to promote social, political, cultural and institutional changes. Unfortunately, more and more crises are going to come along, often in the form of extreme weather phenomena. It is in our hands to

take advantage of these situations to speed up social change. There are moments of “dead calm” in the evolution of society, when it seems that nothing is changing and there is no movement on the surface. But this same sleepy, befuddled society can take enormous leaps when crises are at their height. The builders of change need to watch out for when the wind changes, so as to take advantage of it when it is a following wind.

Usually, one month is nothing. But there are months which are worth years. These days, which are worth months, we need to be particularly alert. The wind of change doesn't blow all the time.

Creating crises

One option is to take advantage of crises, but another option is to create them: reveal to society a situation which is not new, which actually exists, but ensure that it is seen in terms of a social scandal.

Not long ago in France, the self-styled “enfants de Don Quixotte” organised a large number of tent villages in streets and squares. They were not talking of anything new or unusual: all they were doing was to expose the plight of the homeless to society. The poor were already there before the actions of these organisations, but they were the unexposed part of the iceberg, below the cobblestones, not disturbing any consciences.

Their clamour and their gesture caused the media, and society in general, to take notice of something they already knew about, but which they seemed to ignore.

A few years before that, development cooperation NGOs filled the streets and squares of Spanish cities to demand that the institutions comply with the promise to donate 0.7% of the GDP as development

aid. They weren't talking about something that was unknown. They were talking about the poverty that had always been there, but with their campaign they brought to the political agenda this old demand and finally managed to get many Spanish institutions, both local and regional, to set up funds for development cooperation.

Suddenly, with their mobilisation that lasted just a few months, the "enfants de Don Quixotte" managed to force the human right to housing onto the statue books. Suddenly, the Spanish institutional culture saw an increase in the public calls for aid to development cooperation projects, hitherto almost entirely restricted to central government. History goes in spurts. But these spurts can be incentivised with social creativity, causing crises, building symbols with the power to mobilise. Why not do this with the water crisis?

Opening the eyes of the public, making it dismount from the horse of consumerism and take notice of one the true priorities of society and the biosphere, water management, is necessary and can be done.

The policy towards negroes in the United States was to change because of a minor incident, a negro woman's refusal to comply with the regulations established for public transport. This woman changed the history of the United States, and the government's racial policy would never be the same again. Choosing something small from which to unravel the thread of social change and bring about an overall change in policies can sometimes be more effective than making a more general proposal from the outset.

Very often, the more global problems are better understood by the social majorities when they are based on specific events which give a human face to the broader problem.

Taking advantage of the time when the political parties listen more and have the most to fear

A particularly opportune time to force water policies onto the political agenda is when the political parties pay closer attention to society, because that is the time when they have most to fear, more insecurity, more worries about the future: the months leading up to an election campaign. It is then that the candidates experience the ultimate truth of a democracy: that sovereignty resides in the people. It is the time when they listen with great attention to the will of the electorate. It is a time that society should take advantage of.

In the months leading up to the last French presidential elections, Nicolas Hulot, a well-known French journalist, with strong ecological commitment, announced his candidacy for the Presidency of the Republic, unless the main candidates joined an ecology pact. Nicolas Hulot used this opportunity to determine the electoral programme of the two main parties. And he was successful. The two main parties in the race signed the pact proposed by Nicolas Hulot. The formula that needs to be employed is not unique, but the usefulness of taking advantage of this time when the political parties, the ultimate administrators of democratic governments, are most open to suggestions, is obvious.

Resolving this contradiction between the political “time-scale”, the short term, and the time required for effective water policies, a medium- and long-term commitment, is achieved by educating society. Society and the electorate need to understand the relationship between the present and the future. They must learn to look under the froth of normal political confrontations, to distinguish and value the importance of the basic issues governing the health of the population and that of the ecosystems, the ultimate support of life, our lives.

The human right to water to be included in constitutions

In Uruguay they have managed to include the human right to water in the country's Constitution. That is the right place for it if the intention is to give this right the same ranking as others. There will be countries in which this is the right time to propose this constitutional change. In others, the time may not be right at the moment, but just the proposal in itself has an obvious lesson to teach. It is a basic right which should be in the Constitution, and the world's governments, rich or poor, should take active measures to ensure that this right can be exercised and practised.

In addition, transferring this right to the supreme law that arranges the architecture of a country makes obvious sense: it underlines the priority that governments need to give to policies aimed at guaranteeing this right, even if it means radically rearranging their budget priorities.

Constitutions include human rights – of association, freedom of speech, of assembly, among others – that are paramount for guaranteeing democratic life in a society. That's all very well. But it seems incomprehensible that they do not include the human right to water as well, which guarantees something more basic: life itself.

When this right is violated, it is hard to exercise the remaining rights.

Public administrations can help rivers by changing their buying habits

Another enormously powerful economic agent which has underexploited its potential for promoting change is the public administrations. In many countries they manage 12% of the GDP, which means they spend vast sums of money.

And this under-exploitation is paradoxical, because when the public administrators are legislating, they are ogres as far as businesses are

concerned, but when they are buying, they become gods, whose wishes are commands.

All too often, the very minister who funds a publicity campaign to encourage citizens to use recycled paper does not buy it for every-day use in the ministry; the very city councillor who is working against climate change, buys official vehicles with the worst figures for fuel economy – the list of examples is endless. Under these circumstances, not only is the degree of confidence shown by people to their rulers affected, but money is not spent with companies that produce or sell greener products, and who have, therefore, invested in accordance with the needs of sustainable development.

Responsible public purchasing is an essential element for building sustainable development. It's a question of our money being used to purchase more sustainable goods and services, not to finance products, goods, services and businesses that do serious harm to the biosphere and water courses.

There are councils and regional governments who offer children school dinners made with organically-grown produce. By doing so, two noteworthy results are obtained: the children benefit, because they are healthier, and so do the rivers, because they no longer take in nitrates and pesticides.

If the public administrations purchase recycled paper, which uses less water than conventional paper, the “wild” flow of rivers increases. The potential for helping water masses that the public administrations have by purchasing responsibly is practically boundless.

Taking advantage of the time when business leaders listen more and have the most to fear

There are businesses that have more power than many governments. With more power comes more responsibility. The economic, social and environmental impact of the businesses that are quoted on the world's stock exchanges is astronomical. The shareholders of these companies need to take responsibility for the consequences generated by the activity of their business.

There are a lot of life-destroying chemicals poisoning the world's rivers, a great deal of irresponsible mining, and there are still companies that have not understood that they cannot function in unviable countries. Just as companies can and should be agents in solutions to bring about sustainable water usage, it is also true that they are part of the problem.

In a global world, it is sometimes difficult to follow the thread linking causes and consequences. Many decent and solvent shareholders of reputable companies in developed countries do not see that, as owners of the company, they are jointly responsible for the environmental disasters and social dramas they see later on TV news bulletins. They do not see that their profits are founded on harm inflicted far away.

They may be people who show respect for the environment, and very probably they are people who take notice of the grief of the weakest. But they are never capable of establishing the logical connection between their shares, which they bought at the bank on the corner, and the actions of their company which are suffered by some natives thousands of kilometres away.

Just as with the election period for the political leaders, there is a time when business leaders have to face the approval or otherwise of their management, when they are accountable to the owners of their

firm, a time to be examined. A time for companies to approve policies in line with sustainability, for them to understand that they cannot base their legitimate profits on illegitimate practices that harm nature or human rights: that time is the Annual General Meeting. It is very common in the United States for shareholders to make proposals that force companies to ratify their commitment to sustainable development.

In many countries, this approach either does not exist or is in a very early embryonic stage. Yet the transformers of the world should take advantage of this time when the shareholders, both major and minor, decide the business policies that will have an enormous effect on the fortune of many eco-systems and peoples all over the world. And the world's business owners, both great and small, should understand that it is not legitimate to do business that goes against the interests of the planet and the peoples who inhabit it. They should take responsibility for the consequences of their actions.

Many companies are already showing that, for a start, there is no conflict between profitability and sustainability. It is not a question of choosing between business and sustainability. Business can coexist with sustainability. There is no conflict between ecology and profitability; but there is conflict between short term profitability and long term profitability. Today, if a firm wants to do long-term business, it has to do so respecting the biosphere. Otherwise it will fail, driven out either by the laws or the consumers.

Consumption is part of the problem... it could be part of the solution

Why don't consumers reward businesses that practice sustainable water usage? Why don't these consumers punish companies whose activities harm water courses and the human right to clean water for all?

Among the tools we citizens have at our disposal are the vote, protest, and another with enormous potential, greatly feared and little used in many countries: our consumption, our money. Usually we vote every four years, but we buy much more frequently. As far as millions of companies in the world are concerned, the laws that governments pass matter a great deal to them, but I venture to suggest that receiving the favours of consumers matters much more to them.

This power, this tool of change with its fearsome potential, is very little used, which means that the engine of change is deprived of a fuel that can do a great deal to mobilise business strategy: consumerism. Furthermore, business culture, which is very resistant to new legislation, is very receptive when it comes to satisfying buyers' needs. Businesses often put up a united front against new regulations, but they are all too ready to accept any changes in consumer trends.

The regulations might not change, but if a white goods manufacturer discovers that a water-saving appliance manufactured by the competition sells better than its own model, the bosses will order its department of innovation to come up with a more efficient model, without any need for regulatory intervention.

Moving on to another sector, if ecological farmers experience a 20% growth in business, while conventional farmers only see a 4% rise, if timber from sustainably managed forests sells at a higher price and in greater volumes than that from uncontrolled felling, if toys with toxic chemical products cannot find any buyers, then the message to manufacturers is clear: either change or shut down.

It is a message that is easily understood, not only by a company brimming with good intentions, but also by a company that only lives for profit. As a result of abandoning polluting production processes, the

health of the world's rivers will improve. The fish will live better and it will be easier to provide clean, unpolluted drinking water to the thirsty. Responsible consumption is not only consuming different things, it is also, above all, consuming a different way, and often consuming less. Therefore it is a question of changing the products that go into our "shopping trolley", and also of reducing the size of our "shopping trolley". All too often, social organisations have concentrated on putting pressure on the public authorities only, overlooking a power that is increasingly growing, increasingly more significant: the power of the big corporations. A vast proportion of the world's GDP depends on the decisions of their boards. In the water revolution, these companies should be allies, not enemies, of change. And we consumers can and should help this come about, by rewarding those who make a greater effort to change and punishing those who don't. It's as easy and as effective as that.

Consumers' intentions are on the right track. In Spain, some surveys have shown that 40% of consumers "claim" that they want to consume more responsibly. It is a similar situation in other countries. The problem lies not in consumers' intentions, it lies in their actions. The percentages simply do not add up: it is not unusual for 95% of the intentions in consumers' hearts to fail to reach an agreement with the hands holding out the money.

But even so, things are changing in the world, and consumers can play an essential role in protecting water masses.

Investing in line with our values

But using our money in line with our convictions does not just mean spending our money in the corner shop. It also means making sure that when we invest it, we are putting it to work in a way that matches our ideology. And here, we have a great number of opportunities. The first is when it comes to choosing a bank to work with. Is it a bank that is financing projects somewhere in the world that are harming the environment, polluting water and seriously harming rivers and wetlands? If so, we are living a schizophrenic life: our words are working one way, and our money another.

The financial system has enormous potential to direct the world one way or another. Very often, we go to the banks and only ask three questions to make our choice: interest, security and solvency. What is missing is a fourth question, simple and extremely significant: What projects am I helping with my money? If this question were to be commonly present in exchanges between banks and the public, it would ensure that environmentally unsustainable projects, which do serious harm to water masses, would find it very hard to acquire financing. It's as simple and as obvious as that.

Our money, which we have put into the hands of others, is working day and night in support of businesses and projects which are sometimes entirely incompatible with our values. If we work in favour of rivers and fish, we should not give our consent for our money to work against our ideals. Our money should not have a "soul" of its own.

It might look like it, but it isn't

We all deal with other people for what we believe they are, not for what they really are. It would be difficult any other way. And this truth, which

holds practically everywhere, strongly addresses the importance of working with the media and ensuring that they take notice of water problems and what we are doing about them.

Unless water problems and their solutions appear in the media, there is no way that water policies can be a priority for governments, or that businesses actively work for change.

The media, in their role as informers, silencers or expanders of what is happening, underlining or dismissing it, are essential. We must get them onto our side, and make them see their responsibility.

There are successful organisations, such as Greenpeace, who organise their actions looking for maximum media coverage from the outset. The builders of change will not be successful unless we manage to ensure that water news moves off page twenty onto the cover.

However, there's one more thing to be done. One goal – always a good one – is that the media give better coverage to water news. Another, and today it is possible, is that when the media are exercising their social responsibility, they construct their own initiatives to disseminate the challenges posed by the problem of water, so that the majority hears about them. The media have a great deal of power, and they must use it in favour of water and of those who do not have enough clean water.

Pride and shame

Much of what we do can be explained by the fact that we are obliged to do it, and another part of what we do is because we have a financial motive, but there is a large percentage of our actions that cannot be explained by money or the law. It is here that pride and shame explain much of what the situation is.

In many electoral debates, the Pisa report, which establishes an

international ranking of national educational systems, has been the source of controversy between government and opposition parties. The same goes for the ranking that each country occupies in the United Nations Human Development Index or the Index drawn up by Transparency International for corruption in various countries of the world.

When a country gets a good ranking, its leaders boast about it. When a country is nearer the bottom, the government questions the reliability of the report, while the opposition publicises it.

At any event, what everyone sees is that, largely thanks to the media coverage, these lists are a major impulse for change. This is either because countries want to keep their good ranking or because they want to improve their shameful position. The social controversy that these rankings cause “winds up” society and causes it to discuss politics, budgets and priorities.

In the water revolution that we must promote, we need to build “observatories” which can be clearly seen and which attract media interest. They should compare the key indicators of water management between countries, regions, cities, industries, universities, and so on. In this way healthy competition is established between similar organisations, either to be near the top and thus receive applause and recognition, or to escape from the positions of shame and dishonour. Often these rankings exist but only the experts know about them; they do not appear in the media and those affected do not see that reputation is damaged or benefited by their position on these lists. Therefore one task is to establish these water situation observatories, and a complementary one is to ensure that public opinion is aware of them. As well as the public repercussion, there is a prior factor, which is the scientific rigour of such ranking. If there are doubts as to their seriousness

or independence, their effect as a stimulus for social debate and environmental change is reduced.

A collective challenge, also a local one

For a society to get results quickly, it has to concentrate its efforts on a common objective, with everyone contributing their talents and skills in the field that they are competent in. To a certain extent, this means establishing a collective challenge that will stimulate the energy for change to be found in society.

The Millennium Development Goals are one such collective challenge. Every country has established their goals. That's a good thing. The Kyoto Protocol is another challenge for international society.

These worldwide collective challenges are extremely necessary, because they enable us to see ourselves as citizens of one single world: with similar problems and common challenges that are unrestricted by national boundaries.

Yet when we look at the world's problems globally, the sheer size of them usually casts us into despondency. How are we going to solve it all?

Let's take water. How will we manage to give drinking water to the more than 1.2 billion human beings that do not have it at the moment? How can we see to it that 2.6 billion people have proper sanitation? What can we do about the massive pollution of the world's rivers?

This global thinking is necessary, as are the civilising global challenges, but this approach also has a perverse effect: it casts the specific person or organisation taking on the global challenge into despair.

To regain our self-confidence and our essential enthusiasm for change, we need to lower the scale of water problems as well as of the challenges that we are going to tackle.

We need to set ourselves a challenge for our city, our river, our wetland; an ambitious, but feasible goal. This collective feeling that we can do it restores our enthusiasm and hope, which are essential for environmental and social change.

Many of the success stories have been due to the setting of local challenges which bring out the best in the social players of a town, a region, a district or a country.

The smallness of the action is compensated because it is seen as contributing to the global objective. The idea of “all for a common goal” is to be found in all cultures. History shows that when people unite and work together, they almost always achieve what they set out to do. Furthermore, this common effort encourages the active, wakes up the passive and brings out the best in society.

Collective challenges stimulate co-responsibility among the various players of a community, a sharing out of tasks to achieve the common objective. The conviction that we are facing a challenge that we are capable of meeting gives the social and institutional players a view of the light of hope at the end of the tunnel of effort.

It is very important that this possibility of success in meeting the common objective is made clear, because the cancer of social change is scepticism, a virus that is very hard to defeat. To do so, we need victories that prove that change to sustainability is not only necessary, something which nearly everyone accepts, but is also possible, something that very few people practice. This is why, to put a brake on the persistent scepticism that abounds, it is necessary for challenges to be local and feasible.

To change the lives of millions, we must think up global actions

The world is one unit, and because of global warming, many people understand that. There is a global marketplace, a common biosphere, common problems, an on-line society, but there is no global government. And the institutions that are supposed to serve everyone, such as the World Bank and the International Monetary Fund, do not always appear to do so, and we as agents of change do not perceive them as such. There are actions that are best carried out on a global scale. The Internet enables global actions to be carried out. There is scant globalisation of protests and proposals.

The global society should make its presence felt. It might take the form of a worldwide referendum, or it could be organised pressure on a summit conference. To change the lives of thousands, local actions are essential. To change the lives of millions, we must also think up global actions.

Mobilisations against the war in Iraq, concerted pressure for the G8 countries to take action over Africa and climate change, with rock concerts included, calls for mass black-outs in all five continents, among other initiatives, are highly significant precedents.

In the past, when victims of a public policy protested to their country's government, it was there that those truly responsible were to be found. But now, when they aim their criticisms at the local government, they all too often find that it passes the buck to a more global international jurisdiction: the World Trade Organisation (WTO), the International Monetary Fund (IMF), the World Bank or the European Union, among others. However, it's only rarely that protests or proposals are globalised. The world is one unit. And in many of the labyrinths we find ourselves in, it is only possible to find the way out if it is a global way out.

Could we imagine solving the growing pollution problem in the Mediterranean sea if there were not a regional agreement in place among the shoreline countries? Many solutions are either global or nothing. Giving impulse to them calls for global proposals and actions as well.

Changing the thermometers

We all know that with human health, there are simple indicators that help us see whether we are healthy or not: temperature, pulse and blood pressure.

The most commonly accepted indicators for societies mentioned by the media are of an economic nature: Gross Domestic Product (GDP), per capita income, unemployment rate, inflation, and so on.

In recent years, on both the international and national stages, there have been serious attempts to create other equally simple indicators to show society whether it should be concerned for its “health” or not. The United Nations created the Human Development Index (HDI) as a complement to other indicators. There are national and international observatories that show various aspects linked to sustainable development. We have made progress, but we need to change society’s course to look at water signals; we need society to show concern if the per capita income rises while water masses are being destroyed.

It is not easy to make these indicators visible to the public; the media are saturated with information and almost certainly will devote more column inches to the bedroom secrets of the stars than to the fact that a major river in China is failing to reach the sea, its natural destination. However, we have to ensure that the opposition parties in the world’s parliaments rap their governments over the number of pollution black spots in their rivers, just as they do over a rise in the unemployment rate.

The awareness of the decision-makers is connected to that of the public and the media. It's not easy to get politicians to make significant changes to their attitudes regarding water problems, unless society's attitude changes.

We need people to defend future generations

It is obvious that for years we have been pillaging, in a more real than metaphorical sense, our children's future, and that of our children's children. When we pollute a river, an aquifer, often irreversibly, when we dry out a wetland, when we carve up a river and turn it into a set of channels that are temporarily connected by pipelines, we are eating up the future of the generations to come.

The decisions that will affect those who will be alive tomorrow should not be taken by those of us who vote today alone. Children should have their say, as should those who cannot talk yet, those still in their mother's womb, and those who are still a twinkle in their father's eye. Sustainable development means, above all, taking into account those we do not know and building an environment with room for all those who are to come.

How can we make the men and women of today aware of the fact that they cannot take decisions that will seriously affect the future, without taking into account the men and women of tomorrow? We need to give visibility to the irreversible losses that are going to occur in the legacy that our children will be inheriting, and somehow give future generations a leading role. There are two actions that would open society's eyes wider to this rape of the future.

One would be to step up the number of lawsuits presented by children under ten years of age for mortgaging their future. They might

not fit in with usual legal culture, but their emergence in the media would help society understand that, deep down, their cause is justified. Who could deny that a child is in the right when he sues a government minister because he has done nothing about the pollution in the child's source of drinking water in the future?

Another action which would help society take notice of future generations would be the formal appointment of children's ombudsmen. These posts, which if possible, should be recognised by the public administrations, would defend the rights and opinions of tomorrow's citizens.

It is paradoxical that many countries have ombudsmen, with people who definitely exist and, in the worst scenario, can defend themselves without help, and indeed do so at a pinch, and yet there are no ombudsmen for the future generations, who obviously cannot defend themselves on their own.

Sponsoring a common resource

One problem that can be found in many countries is that the rivers and water masses belong to everyone; therefore, they belong to no one; therefore, no one looks after them; therefore, public servants have to look after them, because that's what they are paid for. This is perverse reasoning, but fairly widespread.

One way to tackle this lack of care of a common resource such as water would be to "carve up the common resource" and share it out among citizens and organisations, so that a particular stretch of river, aquifer or wetland "belonged" to such-and-such a collective. This would involve "owner" citizens or "owner" organisations getting to know their stretches well, on the basis that what one knows ends up

being loved, and what is loved ends up being defended.

Various countries have projects that organise volunteers to look after such stretches of river. This distribution is very useful for combining common property with the adoption by a collective of an area with a view to looking after and defending it. It's very difficult to entrust the defence of the natural heritage to public servants alone. The extended common heritage must be defended by the extended public.

Forging multiple alliances

Collaboration between agents of change can be ad hoc or more stable. There are initiatives, such as Water Alliance for Central America, in which the public administrations, businesses and NGOs work for a specific objective. Everyone is different, but from their diversity and respect for each others' particular characteristics, comes a joining of energy and talent.

Alliances aren't easy – there is often mutual distrust and suspicion. But they do constitute a space for relationship and structured dialogue which enables forces to be joined and common projects to be carried out. They also help each other to have greater awareness of each other's motives and reasons and, if applicable, discuss with full knowledge of the facts.

Setting up an alliance for a common objective is perfectly compatible with members of that alliance maintaining divergences and discussions in other fields. Setting up plural alliances is practising the principle that we mentioned earlier, that it should be possible for all builders of change to do two things at once: work together in areas of agreement and continue to debate in areas of discrepancy.

The sacred aspect of water

Water is not just another resource. All religions have made water a sacred symbol with regard to birth, life and death.

But this sacred nature is not only to be found in religious texts: a quick dip into popular culture will show that it is to be found in the myths and beliefs of East and West, North and South.

This exceptional status of water over any other element of the biosphere, over any other environmental issue, should be used for this environmental change. In the history of social change, emotions play a more prominent role than reason. The tremendous force that argues in favour of the reasons of water should be joined by a non-intellectualised force, which exists in the hidden corners of our ego which not even our ego fully understands.

This “reserve army”, which lies dormant in our brains, habitually packed with figures and reason, the army of myths, legends and the sacred, needs to mobilise in order to make a decisive contribution to this water revolution that we and our planet need.

To understand the greenhouse effect, you have to understand CO₂, radiation and other “weird” things, not visible at first sight. To understand the exceptional status of water, all it takes is self-observation, or more simply, remembering the tales our grandparents told us. It’s a short-cut to understanding, closer to the illumination recommended by the zen masters. In the sultry streets of Nicaragua, the children say: “Could you make me a present of a glass of water?” They say this in the full knowledge that a glass of water cannot be denied or sold to anyone. In many cultures, even in secularised societies, this status as a common resource in which life is born makes water an exceptional asset, which mobilises exceptional emotional resources.

If a society can fuse water's scientific aspect with its sacred nature in a wave of social mobilisation, then everything is possible. If they go separately, then again, unfortunately, everything will be possible.

Scientific studies

Figures are more important than words. It's harder to mistake a number than an adjective. Scientific studies alone cannot change reality, but to change reality, scientific studies are extremely useful.

A social mobilisation packed with emotions and clamour is very important, but if it's accompanied by the weight of sheer science, it is overwhelming. This is why it's essential to get academics and university researchers on our side.

Saying that this river is polluted, dirty and smells bad is not the same as giving an exact description of the degree of mercury pollution, and contrasting this figure with tables issued by the United States Environment Agency. Definitely not the same.

Political decisions are often justified for technical reasons which are presented as being unadulterated by values. But there are never any neutral decisions, and hardly ever is there just one solution to a problem. Almost always there are various possible options. It is very important to open society's eyes to this plurality of approaches.

Images

A picture is said to be worth a thousand words, and it's said that "what the eye doesn't see, the heart doesn't grieve about". This has always been true and now even more so.

The report drawn up by Spain's Sustainability Observatory on the development of the Spanish coastline occupied the front covers of the

media because it compared old photographs with current ones. Both sets of photographs were devastating. There was no need for words. The images said it all.

Soon afterwards, Greenpeace Spain, using imaging software, compared current photographs of well-known Spanish rivers with a mock-up of what they would be like in the future as a result of climate change. These images were reproduced on TV and in magazines and newspapers.

The political and media impact of these graphic reports was huge, certainly much bigger than for any two-hundred-page dossier. The “translation” of a report into photographs or video is almost always a good option. Saying it in images ensures that the message is more “audible”.

Web 2.0

The last few years have been paradoxical. There is growing protest in many societies because there is no social participation. Yet recent years have brought us worldwide phenomena of massive voluntary participation. Wikipedia is a world encyclopaedia, in many languages, and its creator is the people, anonymous and plural. Linux, the free operating system, was created by an army of collaborators unprecedented in history, thousands of people who had never met each other before.

The Internet is here to stay, and is rapidly changing habits and customs. Many protest, proposal, awareness-raising and debate initiatives are carried out over the web. There should be more of this. The web’s ability to connect citizens and organisations is almost boundless. Communication will no longer be one-way, but two-way. The initiative will start with an NGO or a citizen, a cosmopolitan city or a third-world city, and the best is yet to come.

In addition, the widespread use of mobile phones and digital cameras, together with the emergence of mass phenomena on the Internet such as YouTube, has given rise to a citizen's digital journalism, which is massive and decentralised.

This citizen journalism can be an element of social monitoring of aggression against water masses that is much more extensive than any department of the public administrations.

The recent government repression in Myanmar was almost immediately transferred to images recorded on mobile phones and digital cameras. In France, Sarkozy's popularity rating went down because of a recording that somebody made, on a mobile phone, of him insulting a member of the public.

The new technologies give power more control, but they also enable a greater control on power. They are potentially a powerful tool of social change.

River pacts

It has always been a good thing for the users and beneficiaries of a river to come to an agreement over its use. It has always been a good thing (albeit rather rare) for fish, anglers, farmers, businesses, city councils, ecologists and canoeists, to name a few, to discuss matters and come to an agreement.

Now with climate change in our "living room", these pacts need to become widespread. These agreements would be a way of minimising the tension and conflict that occur as a result of the increase in climate variability.

In a river pact, with dialogue and social participation as the foundation, the dreams, fears and interests of each party need to be shared, in order

to create a common project. To a large extent, there would need to be an agreement over what would be a desirable purpose, which will guide the actions of the present to gradually build the future, a common future.

It is not considered desirable when the water reaches our necks or when the water does not reach anywhere and plants die and the taps are dry. We need to anticipate crises by promoting agreements when the rain is in plentiful supply and not when the situation has become critical.

But these river pacts cannot be made without taking into account what other living creatures “say” or without recognising the rights of future generations. One cannot build up a consensus that does not include the future, other living creatures or what science tells us. We cannot make a river pact... against the river.

Pep pills

The builders of change have had more successes than we can remember. And this amnesia means that the feeling that nothing can be done is more widespread than it should be. To combat pessimism, to generate the hope that the battle against thirst can be won and that we can reconcile ourselves with nature, we need to broadcast any successes that are obtained.

We will not be boasting when we say how well we have done. The publicity for the positive results of our action will encourage others, wherever they are, to try to change things as well. The wind of change is slowed down by a scepticism that goes back a long way, deeply rooted in the “human soul”, the feeling that victory will never come in the end.

Scepticism and pessimism work jointly to dilute the energy of change to be found in society. In the guise of devil’s advocates –there are millions of them – or in any other bodily guise, it is true to say that there is a

legion of “deniers” that a desirable world is possible. Up to now, the most conclusive master formula against this plague of prophets of doom, spread over the five continents, has been to publicise successes achieved.

Some organisations compile these good practices, classify them and make them visible. It is a very necessary task.

Building a civic climate

The simultaneous nature of various of the actions described should create a civic climate in which the main players feel that they should do something, that now is the moment, otherwise it will be too late. If we can create this climate, unexpected things will start to happen. Social creativity will spread.

Creating such a climate should be an explicit objective of the builders of change. Once this climate has been created, the politicians will begin to pass budgets for water policies, society will accept water price rises, regulations will be drawn up and technologies will spread. Time is speeding up, and so are changes.

This climate is generated by the simultaneous nature of a set of actions by interdependent players who are creating a state of collective opinion. Public and published opinion coincide. Rulers and the ruled are being mobilised in a shared direction. Suddenly, there are economic resources, initiatives and political willingness. Everything seems to have changed. The wind of change is here, blowing through institutions, businesses, and social organisations.

The key reason that this climate change is occurring is the simultaneous nature of the actions: in the same place, at the same time.

Epilogue:

THERE IS NO TOOL MORE POWERFUL THAN HOPE

Some of the tools proposed in this book are appropriate for one country, other tools for somewhere else; not all of them are universally valid. In every area there needs to be a specific analysis of a specific reality. The builders of change are craftsmen – they do not work on an assembly line.

Each builder of change, depending on his or her position, opportunities, situation (which has to be carefully read), will choose the tool from this toolbox that is deemed to be the most appropriate for the situation.

And it may be that sometimes, the most effective choice will be to adapt and make a new and original tool that will perhaps enhance the virtues of some of those suggested here, and which will have fewer contraindications. What this social innovator should then do is publicise his or her discovery and share it so that others can benefit from those ideas.

Each tool is ultimately judged on its usefulness, its effectiveness and efficiency in promoting the far-reaching rapid change that we need to build on this planet in order to make our peace with water and the biosphere, and to be able to provide clean water to all human beings all over the world. To everyone, for good and all.

No tool is more powerful than hope. If the builders of change do not believe that change is possible, it will not happen. Therefore, feeding the flames of hope is a very important task. And the flames of hope are fuelled by successes and specific achievements. These pages have been written with a view to helping to increase these achievements.

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