

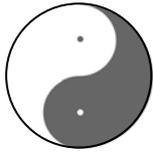
Lecture note

# River basin ethics

January 2003

by

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*Lecture notes have been prepared on the following topics:*

*Aggregate water balances for basinwide planning*

*Case study: Kok River Basin*

*Case study: Lower Mekong Basin*

*Environmental management*

*Floods and drought*

*Glossary*

*Good governance strategies (example from Thailand)*

*Internet applications in river basin management*

*Paddy cultivation*

*Poverty alleviation*

*Project design*

*Public administration*

*Ramayana*

*Reporting*

*River basin ethics*

*River basin management*

*Sector planning and integrated planning*

*Socio-economics*

*Strategies for natural resources and environmental management (example from Thailand)*

*Technology management*

*UTM coordinates*

*Water demand management*

*Water resource economics*

*Water user associations*

*Each note is intended as a quick introduction of a subject prepared for professional practitioners who are specialists in other subjects.*

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*Suggestions and comments are most welcome!*

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## Glossary

Please note that the below explanations are *examples* of the meaning of each word. Most of the words have different meanings as well.

- 
- Authority: (1) The right to make and implement a decision; (2) an organisation or institution with a certain power and certain responsibilities
- Compliance: The extent to which a rule is observed
- Consistency: Extent of resemblance over time, or from case to case
- Consensus: General agreement. There is consensus about a decision if no participant opposes it
- Corruption: Trading of favours by a person who is in control of an administrative decision
- Deontological ethics (or '*duty*' ethics): A school of *ethics* that assumes the existence of an absolute and mandatory reference for what is good. '*Do what is right, irrespective of the consequences*'. Complementary to *teleological ethics*
- Discrimination: The (unjust) deprivation of rights for a specific part of a population
- Double standards: Unfair application of separate ethical standards for specific persons, groups or countries, so that an act that is regarded as acceptable for one person, group or country is regarded as unacceptable for a different person, group or country
- Environmental (or ecocentric) ethics: A school of *ethics* dealing with living beings and the environment
- Fair: In accordance with an accepted (but implicit) *standard*; 'on an equal basis'
- Efficiency: The ratio between output (for example food or money) and input (for example land, water, labour, or energy)
- Ethic: A *standard* for what is good and what is bad; ethics: The study of ethic; ethical: Related to ethic or ethics
- Governance: Formulation and implementation of policies. Governance related to natural resources is a public management process for allocation and utilization, possibly based on legislation, an institutional framework, and policies and practices. 'Good governance' can from case to case reflect characteristics such as predictability, transparency, sustainability, value generated, and social balance
- Graft: Exchange of favours between friends or business relations
- Human rights: The Universal Declaration of Human Rights was passed by the General Assembly of the United Nations on 10 December 1948. It describes basic universal rights of individuals and families, and related obligations of the state
- Nepotism: Giving preference to family members when selecting a candidate for a job
- Power: The ability of a person, group or institution to effectuate one's preferences in competition with alternative preferences of other persons, groups or institutions. Power can be legal (based on law), or informal, or based on tradition
- Predictability: The extent to which an aspect (such as a response, a decision, a requirement, or a cost item) is known beforehand; opposite of arbitrariness (of a response, a decision, a requirement, or a cost item)
- Procedure: (1) A description of how to do something (for example how to make a decision); (2) a way to do something (for example make a decision)
- Rule: A description of what to do or what to decide under specific circumstances

**Stakeholder:** A person, group or institution that has a particular interest in an activity, project, programme or policy. This includes both intended beneficiaries and intermediaries, winners and losers, and those involved in, or excluded from the decision-making process. A key stakeholder is one who can significantly influence or who is otherwise important to the success of the activity, project, programme or policy

**Standard:** (1) A reference for what is acceptable; (2) same as normal; (3) same as rule

**Sustainability** (1) (according to the UN World Commission on Environment and Development, the 'Brundtland Commission', as reported in 'Our Common Future'): Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs; (2) environmental sustainability means avoidance of irreversible conflicts with a desired state of the environment (for example groundwater being suited for drinking)

**Teleological ethics** (or 'goal-oriented' ethics): A school of *ethics* that assumes the reference for what is good is related to the aim, consequences and usefulness of the decision. One example is the school of *utilitarianism*. Complementary to *deontological* ethics

**Transparency** (1) (of rules and procedures): The extent to which *rules* and *procedures* are publicly known; (2) (of a decision): The extent of public knowledge about who made the decision, by which authority, and on which basis

**Utilitarianism:** A school of ethics assuming that the right decision is the one that gives maximum value to the largest number of people

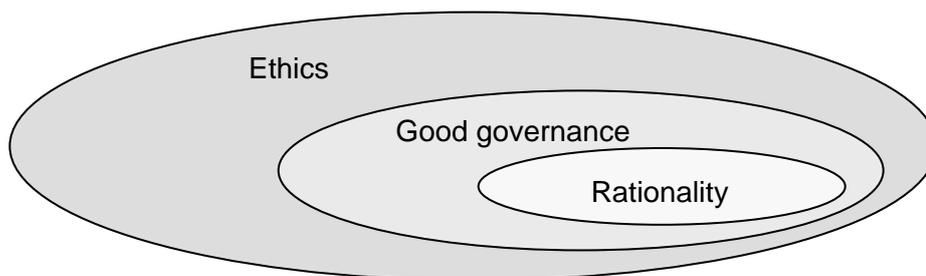
## 1 Introduction

Ethics is about what is good and what is bad, and what is right and what is wrong. The subject has been discussed and taught for thousands of years. The norms may not be absolute and universal, but few people are in doubt about what is right and what is wrong in daily life.

River basin ethics has to do with the many important choices to be made in connection with river basin management. Like river basin management itself, river basin ethics is a new line of thought. It may not always offer solutions, but at least some interesting questions, as exemplified in the present note.

In many cases, river basin management is directed towards some (national, political) development goals, which justify the efforts and the various interventions and regulation. River basin ethics can serve as a tool to improve the compliance between goals and action.

## 2 Basics



**Ethics** is about what is right (or good) and what is wrong (or bad).

**Good governance** is making management decisions according to principles that are regarded as 'good'. Good governance can from case to case reflect characteristics such as predictability, transparency, sustainability, value generated, and social balance <sup>1</sup>. Good governance is not clearly defined in absolute terms, because it is subject to discussion about 'what is good'. Good governance will involve some element of rationality.

**Rationality** is decision-making on a clear basis and according to clear criteria, aiming at some sort of optimisation (such as maximising the '*full value*' of an intervention). Rationality is closely related to the selected criteria, and there can be two different 'rational' decisions about the same question, if the criteria are different. Absolute rationality - leading to the '*best decision*' - is a theoretical ideal. In real life, a full decision basis is hardly ever available - this would require full knowledge about all consequences of all possible choices - which in turn requires full knowledge about the future.

An important point is that decisions *must* be made - even if the basis is imperfect. To choose to do nothing is also a decision, and not always the best one.

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<sup>1</sup> 'Social balance' involves appropriate attention to underprivileged or vulnerable groups and minorities

Unless you consider this World as fully acceptable in all respects, you have a *positive obligation to act*. This obligation is related to your competence<sup>2</sup>. For persons involved in river basin management, this can be done by applying your skills and your competence for making better decisions. In consequence, everybody has a *positive obligation to learn - and to share your skills with others*. An entirely passive life would be a waste of precious human resources.

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The key question is: What is a good decision? Some suggestions are given below, for open consideration.

- The basic rationality criterion is a requirement of *added value*. This means that - from one point of view or another - there is some benefit generated. The benefit can be broad or narrow, immediate or strategic, and it can be in terms of money or any other reference - social, environmental, or perhaps a value represented by a *wider choice of options* for subsequent decisions. In this connection, remember that many decisions have both positive and negative consequences at the same time.
- Routine management decisions in public administration (for example about granting a water licence) should be *predictable* - which means that they should conform with relevant *legislation, administrative decrees and guidelines* that are known to the general public and that are not changed more often than necessary. They must be entirely free from corruption, graft and nepotism.
- A good decision is taken on a good basis - which means the *best knowledge within practical reach* about consequences and alternatives. The decision-basis must include *all relevant aspects*, not only economic ones, but also social and environmental ones, and over *relevant time scales*. There are many examples that a short-term profit is outweighed by long-term costs.
- *Balance between stakeholder interests* is another criterion. From this point of view, it is not adequate that the net value generated is positive. It is also required that serious conflicts of interest are sorted out, even if they relate to a minority of stakeholders only.
- It may be argued that it is good if a decision *generates knowledge* - as a side effect, or, occasionally, as the main outcome. Knowledge is always in demand: About causes and effects, value and costs, and opportunities, options and risks.
- Regarding decisions made on an imperfect basis, a *reversible* decision (that can be changed later on) would be better than an irreversible one. Of course, the choice is not always open. In development of physical infrastructure - roads, dams, etc. - it is impossible (or, at best, extremely expensive) to convert a decision once it has been implemented. In other cases, it is well possible. Economic, social and educational development schemes can be improved in the course of time, as the need arises. The same goes for development by *many small steps* that may be preferred to a few big steps in case that the decision basis is imperfect, side effects are not well known, or if the decision is otherwise risky (for example within rural livelihood development schemes).

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<sup>2</sup> Like the medical doctor, who, if by chance seeing a traffic accident, has an obligation to assist - as a consequence of a particular professional competence

### 3 Participation

The requirement of a good (and complete) decision basis leads to the question of how to make the decision. River basin ethics is not only about the decision itself, but also about the process by which it is produced. Assuming that - in some cases - there is no such thing as the 'best decision', it may be considered how to arrive at some conclusion. And who should participate in the decision process. The national government? The provincial authority? A river basin authority? The village? And/or the individual families and persons who are affected by the decision?

If everybody were in control of decisions affecting them, there would be few roads - since many people would like to live near a road, but few people would like to abandon their home to give way for one. In the same way, few people would like to live near a conventional coal-fired power plant - or to lose their livelihood to give way to a hydropower reservoir.

On the other hand, there are strong arguments<sup>3</sup> in favour of *direct and active participation* in decisions with major consequences for a group of individuals - such as land use or regulation of a watercourse. How should this participation be arranged? What are the formal and informal relations between the stakeholders at different levels? How much authority should be allocated, and on which basis? Power, or traditional rights, or some ethical standard (if one exists)?

Not all important questions have simple answers.

Decisions need to be made - to do nothing is also a decision - and not always the best one

Full knowledge about the future is impossible. One cannot identify all possible alternatives, nor predict all possible consequences of each choice

Participatory decisions can be complex and time-consuming. This is particularly the case for 'once-in-a-lifetime' decisions, where no traditions exist. The prospects for a good decision increase if the participants have confidence in each other, and if they understand and accept each other's roles, concerns and perspectives in the decision process.

### 4 Resource utilization

Ethics in river basin management has a lot to do with development, utilization and sharing of sparse resources: Water, land, energy, and so forth. In this connection, a number of suggestions can be made:

- Good decisions support *efficient use of sparse resources*, such as land, water, energy, and so forth. Good decisions prevent *unnecessary waste* of resources, they support reduction of unavoidable waste, and encourage recycling of resources wherever practical.

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<sup>3</sup> Arguments include (i) a broader and more complete decision basis; and (ii) the practical consideration of much better prospects for successful implementation, once the decision has been made

- Good decisions consider the aim of *sustainability*, in the sense of avoiding compromising the ability of future generations to meet their own needs. This, in turn, has to do with environmental preservation, and including attention to biotopes and biodiversity in decisions where this is relevant. It may well be justified to decide an irreversible intervention, but not if this is done out of ignorance about the consequences.

As one example, it is often technically difficult to assess the value of fisheries - not to speak of subsistence fisheries. There is a risk to underestimate (or even overlook) this item in the decision basis, merely for lack of data and information.

*Ethics of sharing* have deep traditional roots. In some river basins, the norms for sharing irrigation water go back for thousands of years, where such sharing was implemented by early civilizations. Conflicts of interest emerge when a resource that has so far been plentiful - land, water, or whatever - becomes sparse. If so, maintenance of traditional rights - such as '*water as a free good*' - can result in solutions that are obviously less than optimal in a contemporary perspective.

In some cases, traditions or other agreed principles for sharing of water do not exist, because they have not been required until now. If a shortage is imminent, due to population pressure or due to competing demands from other sectors, principles for sharing are necessary as a matter of definition - whether these principles are explicit or implicit, and whether they point at reallocation or 'business as usual'. While it can often be proven (although with uncertainty) what is economically the best way, there is no universal answer to what is the 'right' way.

Aspects to consider include traditional user rights of farmers and fishermen; the basic requirement of access to (safe) water for everyone; the value that can be generated by water allocated for different uses; and whether new demands are consumptive or non-consumptive (giving the latter category a slight priority). The ecological demand of water must also be taken into consideration. Important priorities in this connection are food security; and rural livelihood preservation.

#### **Water demands**

- Household supplies
- Other consumptive uses (irrigation normally being the largest one)
- Ecological demand (for preservation of wetlands, biodiversity, fisheries, a downstream mangrove forest, or keeping saline seawater out of the downstream part of a river basin)
- Other non-consumptive uses (fisheries, navigation)

The cultural context of the water allocation is one aspect to consider along with other parts of the decision basis. Possibly, the magnitude of a demand may be applied as a (secondary) criterion in its own right, giving preferences to small demands, and weighing against very large demands.

The basic considerations mentioned in Chapter 2 - completeness of decision basis, relevant time scales, etc. - relate also very much to allocation and sharing of resources.

## 5 Social development ethics

Social development is a key perspective in river basin management. So, in general terms, 'good' river basin management will support a 'positive' social development.

Guidelines for 'good' social development are abundantly available, both at the international level, and in national policies and development plans <sup>4</sup>. An example of a precise formulation of over-all aims can be found in the original Universal Declaration of Human Rights from 1948 <sup>5</sup>. Once this declaration has been fully implemented the World will surely be a better place to live.

Practical social development at the river basin level may from case to case involve:

- Livelihood generation and preservation, also with a view to the important aim of delaying the (perhaps eventually unavoidable) migration to urban centres;
- education and awareness-building;
- poverty alleviation; minority issues; and gender issues.

These aspects are closely related, and have very much to do with management of allocation and utilization of water, land, and other resources, as well as environmental protection.

Social development is supported by

- Compliance between goals and actual interventions;
- completeness of the decision basis, including due observation of social, economic and environmental consequences, side effects and risks over appropriate time scales;
- maintenance of balance between stakeholder interests; and
- appropriate response to external driving forces.

## 6 Economic development ethics

Economic development is another cornerstone of river basin management. Accordingly, 'good' river basin management will support a desired economic development.

Economic development at the river basin level overlaps with the social development aspects mentioned above. In addition, economic development may from case to case involve:

- Investment-oriented management, which is characterized by (i) clear and practical rules that are not changed too often; and (ii) effective, fair and equal enforcement;
- extension services including marketing support; and
- infrastructural development. At the river basin level, infrastructural development mainly refers to the physical infrastructure (like roads, waterways, embankments, irrigation and drainage systems, and communication systems).

Other important and closely related developments can be better implemented at the national level. This is the case for economic infrastructure (capital market, credit institutions, financial

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<sup>4</sup> Such as the 5-years economic and social development plans applied by some countries

<sup>5</sup> The document is available from the Internet in more than 300 languages

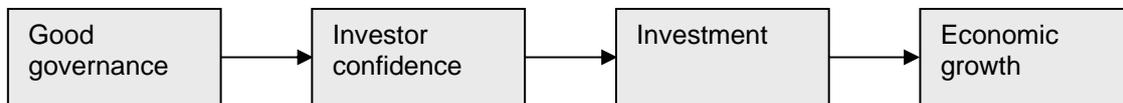
regulation); social infrastructure (the health sector, education sector, labour market); and the technological infrastructure (institutions generating and dispersing technology, scientific research, and advanced education).

The different types of economic development efforts can highly add value to each other if they are planned and implemented in a consistent and harmonized way.

Economic development is supported by

- Long-term stability and broad consistency;
- compliance with specific strengths and limitations of the planning area and specific opportunities and risks of its potential markets;
- appropriate response to external driving forces; and
- any measures that can improve the water efficiency (as well as the efficiency of land use and utilization of other natural resources).

It is important to note that investors - domestic or foreign - are seldom attracted by short-lived and uncertain opportunities, such as indifferent environmental management. While this may be the case for certain investors, these may be the first to come, but will certainly also be the first to leave. As clearly demonstrated by cases of strict rules and strict (but predictable) enforcement, reliable investment is promoted by *stability and transparency* rather than regulation that is less strict but also less predictable. Therefore, environmental protection and investment promotion can support each other if they are linked by good management.



## Appendix: Examples

### **Diversion of water**

Diversion of water for irrigation is a common intervention. A diversion can generate a large value to the beneficiaries, but not seldom at the expense of downstream (present or future) water users. Also, the environment can be adversely affected.

Consider a provincial town that runs out of water in the dry season because the farmers upstream construct a temporary weir and pumps the water from the river into their fields, to save a crop.

Is this right? Who should make such a decision?

How much water should be diverted?

Which limitations can reasonably be applied?

### **Hydropower development**

A planned hydropower scheme can produce large values, and benefits to many people, while undermining the livelihood of a few people, who lose their land, or perhaps their fisheries.

Is it right to go ahead with the scheme?

### **Tigers**

By some, the tiger is regarded as one of the most magnificent animals of Asia, but most people have never seen one in the wild. It is a threatened species. Since 1940, 3 out of 8 sub-species became extinct. The total population in entire Asia is estimated at 5-7,000 animals. The tiger may disappear in the absence of strict regulation. It requires large undisturbed forest areas - and can be a nuisance (or a danger) to the people who live nearby.

Should the tiger be preserved?

Who should decide - the people living with the tigers, or the global community?