# **ÖKONOMIE UND GESELLSCHAFT**

Jahrbuch 16

Facts and figures
Economic representations and practices

**Guest-Editors** 

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# Accountability for development aid

Richard Rottenburg

# 1. Combining accountability and predictability: a paradox

In this chapter I want to discuss development cooperation as one particular field of activities in which auditable accounting can achieve the opposite result from its original intention. According to my assumption this failure is due to restricting general accountability to auditable financial and technical accounting.

Throughout the chapter the noun 'accounting' is used in the sense of producing auditable accounts mainly of financial transactions but also of technical activities which can be audited by relating them to defined standards of quality and efficiency. The noun 'accountability' refers to the legal concept of being accountable in court as a juristic person. By contrast 'discoursive accountability' refers to nun-juridical responsibilities assigned to people and organizations by public opinion according to common sense and morality. The active verb 'to account for' and the passive verb 'to be held accountable for' refer – according to context – either to financial and technical accounting, to juridical accountability or to any form of giving evidence.

Hopes and attempts to improve conditions of social life are inevitably based on an absolute presupposition: It is assumed that historical changes in the social, political, legal, economic and technical capacities of human collectives can be *designed and implemented* at will according to what is considered desirable. Design and implementation, the first and second steps of this process, require a third step in order to make sense: the ef-

fects of the planned interventions have to be *verified*. Interventions that cannot be proved to have the intended effects are by definition no longer interventions but contingent changes or historical accidents.

The belief in the possibility of escaping historical contingency by designing and implementing better ways of living thus calls for procedures to verify the assumed causal link between implementing a model and its effect on real life. This again means: Those who propose the models to improve a common good and those who implement them on behalf of a formally constituted collective have to be *held accountable* for what they do as juristic persons, be they individuals or organizations. The control of these accountabilities by institutions acting on behalf of the collective requires a system of reporting and a system of verifying those reports. As I will show below an increasing tendency to translate discoursive and juridical accountability into technical and financial auditable accounting can be observed.

The link between, on the one hand, interventions to improve justice, order and rationality of social and political life and, on the other hand, control of those interventions for their social effectiveness and economic efficiency is at the heart of democratic governance. The most important result intended by this link is *predictability*. Having a reasonable degree of predictability, people can comfortably count on the fact that the next day the world will be pretty much the same as the previous day. They can predict the outcome of their own actions with sufficient reliance and accuracy to bring order into their lives and to run their businesses.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> For a recent argument on the necessary link between democracy and accountability see March and Olsen 1995. Otherwise, I am here, of course, referring to what Max Weber meant with "Kalkulierbarkeit des Rechtsganges" and "Rechenhaftigkeit der Wirtschaftsgebarung" as crucial dimensions of rationalization (Weber 1922/1972), these again being related to what Weber called "rationale Systematisierung der Lebensführung" (Weber 1920/1972, 540). While the reason for rationalization is no longer expected to be found in higher efficiency (as DiMaggio and Powell (1983) have shown), the process of rationalization has not changed. James C. Scott (1998) discusses the same phenomena from a different angle. He presents a depressing list of failed schemes to improve the human condition by planned intervention and argues that these failures are mainly due to a hegemonic disregard for m□tis (practical knowledge) which by definition is local in contrast to the universal claims of scientific knowledge. In this chapter I intend to show that the hegemony of universal models to improve the human condition cannot be explained by referring to the hegemonic power of the state. Universal models are sometimes backed

Now, those in charge of designing and implementing schemes to reform (transform or develop) society - let me call them experts for the purpose of my chapter - cannot on their side be excluded from the rule of predictability. If a scheme bears unpredicted consequences and if the experts in charge would be held responsible for those unforseen consequences, this would of course discourage any kind of expertise and would finally terminate any initiative to transform anything for the better.

The obvious solution is that experts are not immediately held accountable for the results of their interventions. They are instead held responsible for the appropriate execution of adequate *procedures*. These procedures in turn have to be agreed upon in advance and have to correspond to the state of the art in the respective field of expertise as defined by an independent third party for the most part legitimated by institutionalized scientific knowledge. The good reason for the shift from result to procedure is obvious: It is a fact of life that not few interventions carried out in strict accordance with the contractual commitment and in accordance with the state of the art have, as it turned out later, had adverse consequences. We seem to be confronted here with a paradox: In order to achieve a maximum of predictability for a maximum of people nobody can be held answerable for unpredicted consequences of planned interventions as long as the procedures have been followed by those in charge of the interventions.<sup>2</sup>

It is here where one has to distinguish between two types of accountability and control of accountability. The one I was presenting up to this point is meant to produce the kind of verifiable evidence that can be used in court if things go wrong and questions of compensation emerge. In addition to this legal type of accountability there is a discoursive type of ac-

by those whom James Scott would assume to be in resistance. The point is that resistance can take the form of officially subscribing to the universal models. Without this subscription the models would not become hegemonic. One might thus say that my argument simply turns James Scott's own argument on hidden transcripts from 1990 against his new argument on the workings of state hegemony from 1998.

<sup>&</sup>lt;sup>2</sup> While this argument also goes back to Max Weber, it was Karl Löwith who pointed it out most clearly (Löwith 1932/1988, 360-369) and later Niklas Luhmann who turned it into a full-fledged analysis of legitimacy by procedure (Luhmann 1969/1993).

countability being produced within the narrative mode of knowing.<sup>3</sup> Officials and intervention experts who indisputably act according to established procedures will not be held juridically responsible, whatever the adverse consequences are. However, the unintended consequences of the intervention will be picked up by various discourses - for instance on risk, nature, progress, justice and equality, etc. Typical cases are questions of ecological and socio-political consequences of new technologies (e.g. biotechnology), long-term health consequences of new medical interventions (e.g. future issues resulting out of the Human Genome Project), but also consequences of economic policies (e.g. long-term consequences of state devolution, deregulation and privatization). The altered narratives will produce altered reality definitions which may lead to a change of political representatives, and in consequence to a change of intervention experts. These experts will then define a new state of the art or relate to a different scientific discourse (which is always possible since the sciences never speak with one voice). In the long run this again can result in changing procedures for interventions and thus finally also affect legal accountability and thus issues of insurance and compensation.<sup>4</sup>

### 2. Translating accountability into auditable accounting

The combination between predictability and accountability results, as I have argued up to this point, in a particular paradox: In the first place, accountability is there to increase predictability. In order to safeguard juridical predictability as the basis of democratic governance, accountability has to be related and restricted to the correct following of procedures. That means that no juridical accountability can be established for unpredicted negative consequences stemming from interventions that were correctly designed and implemented according to established procedures. Further, I argued that discoursive accountability can sometimes solve the problem at hand through cultural and political processes even if it cannot finally resolve the paradox.

<sup>&</sup>lt;sup>3</sup> The distinction between a narrative and a scientific mode of knowing is used here as defined by Lyotard 1979/1993. Barbara Czarniawska 1997 made the distinction useful for organization theory.

<sup>&</sup>lt;sup>4</sup> For a detailed case study on the ozone layer see Grundmann 1999.

What I have presented so far is a basic structural principle of modern civil society: Progress and the rule of law are consolidated by restricting juridical accountability in the field of betterment schemes to the correct application of procedures. However, according to several observers during the last 20 years or so the countries of the West have experienced a specific change in the regime of accountability. Michael Power<sup>5</sup> labelled this change "audit explosion". More and more practices have to demonstrate their legitimacy by giving auditable accounts. These accounts mainly relate to the economic efficiency and thus primarily to the financial dimensions of the practices to be accounted for. The point of this explosion is that also non-financial aspects are made accountable according to the same pattern by introducing technical and quality criteria and standards against which the practices are evaluated. The audit explosion appears to be related to an increased blurring of the boundary between public and private domains, which again seems to be linked to processes of state devolution, market deregulation and the increasing importance of transnational and translocal networks. Academics are familiar with this trend at latest since they are required to give auditable accounts of their individual and departmental performance. The precarious issue raised by the expansion of the financial accounting paradigm into new fields of practices relates to the question of translatability of juridical and political accountabilities into procedures of auditable accounting.

The extension of financial accounting and the proliferation of all kinds of non-financial auditable accounts have been accompanied by increased and critical scientific attention to the matter. One of the challenging conclusions of this new focus on the production of accountability by financial and technical accounting is the observation that all accounting is unavoidably creative accounting in the literal sense of the word. There are always several means of counting things, aggregating elementary figures to so called key figures and thus accounting for decisions and activities. Accordingly, the validity of accounting and auditing procedures can no longer be assumed to be grounded in any reality-out-there if one goes above the level of elementary figures. The answer to the question "How

<sup>&</sup>lt;sup>5</sup> Power 1997.

<sup>&</sup>lt;sup>6</sup> How many dollars have you acquired for research? How often does your name appear in the International Citation Index? How many articles have you published in refereed journals during the last five years?

many beds are there in this hospital?" can be given by an elementary figure. The answer to the question "How many beds does this city require?" depends on the way of calculation and cannot be verified by relating the resulting figure to any reality. The dependency of results on the method used to generate those results is even more obvious when it comes to the production of auditable accounts intended to monitor technical and quality standards for instance of universities, hospitals or hotels. (It goes without saying that accounts can nevertheless at the same time be erroneous in a technical or trivial sense and can be corrected or improved within a given procedure. But this last topic is of no interest to the argument presented in this chapter.)

Yet deconstructing the objectivity rhetoric of accounts and audits is not to say that juridical accountability can or should do without objective verification of evidence. This would unavoidably result in the end of democratic governance and even the end of any publicly accountable decision-making. Nevertheless, there is a great chance here. The point is the following:

As accounting and auditing procedures expand they easily become controversial. It has thus become more difficult to hide the performative aspect of accounting. In this sense it has further become obvious that the validity of an account is mainly granted by the legitimacy of the procedure (the method) used in establishing the account. In the final resort this legitimacy is political and cannot be grounded in the world-out-there. The issue of evidence and verification can be put in more general terms: The policy to translate the social world into an assembly of facts which can be counted, aggregated and audited uses a rhetoric of depoliticization and absolute objectivity. As this rhetoric expands it generates its own opposite: Objectivity itself now appears to be a political category – a category, though, we cannot dispose of without losing everything. Knowing and admitting this can be used as a great chance for better politics and thus for better planned interventions to improve the human condition.<sup>8</sup>

<sup>&</sup>lt;sup>7</sup> For the full argument on health services see the contribution by Pinch, Ashmore and Mulkay; for the argument on hotels see the contribution by Gustavsson in this volume.

<sup>&</sup>lt;sup>8</sup> This statement is a truism for those who follow for instance Richard Rorty, and it is the red rag to those who believe in the correspondence theory of truth. While

## 3. Escaping the paradox by creating projects

In my first two sections I delineated a general problem as my starting point: Improving conditions of social life in modern society implies the assumption that social change can be steered. The concept of steering goes hand in hand with the concepts of accountability and predictability. The paradoxical relation between accountability and predictability is circumvented by replacing the responsibility for the outcome of an intervention with the responsibility to correctly follow the established procedures for the intervention. This basic move, together with a late dramatic expansion of accounting and auditing procedures, turned the attention towards the unavoidably performative character of accounting and auditing. It became obvious that like naming, counting is not a harmless activity.

The two processes – one: replacement of result by procedure, and two: audit explosion – lead to the emergence of a specific social form: the *project*. A project is a limited and feasible intervention into social life with an ex ante defined goal and with ex ante defined criteria for verifying the achievement or failure of this goal. Projects are designed in the first place to produce results that cannot only be predicted but also be measured and thus financially accounted for. Every activity can be cut down into single limited projects. These projects can be evaluated more easily than a whole field of activities or a whole institution. This is the reason why the accounting and audit explosion is accompanied by a project explosion.

Yet the decisive clue to this downscaling of often grandiose interventions to limited projects is this: the project is the tool used to circumvent the paradoxical relation between accountability and predictability by turning it into a matter of technical and economic efficiency within a

this is not the right place to enter into this debate (I have done this elsewhere extensively, Rottenburg 1999), I wish to emphasize two points nevertheless: (1) As James Scott proves with his last book (1998), the proposal to improve politics by freeing it from science (and the synoptic view of science) can be made independent of this debate (Latour 1999). (2) I think my paper shows the correspondence theory of truth with its objectivity rhetoric to be a political institution which is indispensable for accountability and predictability. The problem arises when correspondence theory perceives itself as something beyond and above a necessary political institution. It is at this point where it is in danger of going wild and leading to disaster.

limited context. The project is thus the ideal form which translates the paralyzing paradox into a workable procedure. The deparadoxification (Luhmann's "Entparadoxierung") works as follows: The experts in charge of an interventionist project are held juridically accountable for pursuing the defined project goals according to standard procedures by controlling their technical and financial results. Unintended and perhaps adverse consequences of projects are excluded from accountability as long as the standard technical and financial procedures were followed. In such cases of unintended or even detrimental results, experts may lose face or money. They cannot be held legally accountable, though. Project failures are dealt with through non-juridical, that is political and cultural means.

## 4. A special type: development aid projects

A vast and global organizational field which is centred around the concept of the project is the world of development aid, officially known as economic cooperation. Rich countries of the north put aside a certain percentage of their gross national product for the purpose of economic cooperation with the poor countries of the south. The respective governments are, of course, held accountable by their voters for the use of these moneys according to given principles. Governments delegate the responsibility to various kinds of donor or development agencies to use the resources for developing the poor countries. These agencies - to make a long story short - mainly divide the money according to continents, countries and societal sectors. The criteria for this distribution are agreed upon between ministerial-political decision-takers and experts from within the development agencies. The execution of those activities meant to lead to development in remote areas is mostly delegated further down by the development agencies to local project agencies (i.e. project beneficiaries within the countries to be developed) and private consultancies (mostly from the donor countries).

In the end, at the point where the money is meant to produce a result which has a sustainable developmental effect, nearly each dollar is allocated to a so-called *development project* run by a consultant on behalf of a local project agency. It is at this point where high-level goals are trans-

lated into objectives that can be measured and expressed in money. High-level goals are for instance: reducing poverty, adjusting the structure of intermediate institutions to strengthen the market economy, building institutional capacities for the emergence of civil society, improving health and education, controlling urban expansion, reducing ecological damage, empowering women, and so on. Low-level objectives to be achieved by projects are for instance: privatizing one specific state-owned company, reducing the civil service in one specific sector of a country, reforming the financial system of a city, introducing tools for cost-benefit analysis in the waterworks of one city, and so on. The general idea of instigating societal development for the better of some people is thus translated into project form so that it can be accounted for financially and technically.

The question "Has poverty been reduced?" is translated, for instance, into the question "Is the micro-financial system introduced to provide credit for market women in the province X sustaining itself financially?" Translating ideals of human progress into accountable development projects in foreign countries is an intricate exercise though.

### 5. The logic of development aid projects

In order to analyze one of these many intricacies I will now resort to one specific case: a project called "Organizational Improvement of the Urban Water and Sewerage Departments in Arusha, Moshi and Tanga (Tanzania)". This project was financed by the German Bank for Reconstruction and Development through a grant and executed by a private German consultant. It was carried out between March 1996 and January 1998 and had a financial volume of around 5 million DM. Since no capital investments were planned the largest portion of this money was scheduled for expert man-months, which were calculated to amount aim to 94. The aim of the project was to improve the water services in the three towns while at the same time making the water services financially independent from state subsidy and yet affordable for the consumers. Thus the key issue of the whole project was to turn the three urban waterworks from departments

<sup>&</sup>lt;sup>9</sup> The full story of this project is given in a monograph of mine with the German title "Weithergeholte Fakten. Translokale Übersetzungen der Anthropologie und Entwicklungszusammenarbeit" written in 1999 that will hopefully appear in 2001.

within the regional administration into autonomous and financially self-sustaining units. To achieve financial viability mainly one supposedly simple and practical problem had to be overcome: the three water works had to be enabled to collect the money from their customers. At the beginning of the project 40 to 70% of the produced water was unaccounted for. But first, a step-by-step account.

Like every other development project financed by the German Bank for Reconstruction and Development, this one also had a so-called 'Log-frame' (Document 1). The Logframe gives a tabulated, highly condensed, one-page executive overview of the project: here you find the goals, the intended output, the required input, the verifiable indicators, and the means of verification. The Logframe is based on various similar though more detailed tabulated representations of intended interventions which are all part of the contract signed by the three parties involved: the financier, the project agency (i.e. the beneficiary of the project) and the consultant. The most important of these more detailed tabulated project representations are the following three:

- 1. A detailed table with the supportive measures (input) one has agreed upon (Document 2). This table specifies the single problems to be addressed by project activities, explains the exact solutions to these problems, and delimits the required input. At the same time this table assigns code numbers to each field of activity that is related to a problem. All accounting to be produced by the consultant is done by assigning used resources to these code numbers.
- 2. A detailed table with the action plan (Document 3). A project action plan is nowadays produced by spread-sheet software and is the key steering instrument: It depicts the progress of the activities in relation to the temporal framework set for the activities, the temporal relations between the stages of the various activities and thus the relation between still available resources and already achieved results (all related to the code numbers).
- 3. A list of indicators (Document 4). The assumption is that if the problem has been properly diagnosed and the solution properly selected

<sup>&</sup>lt;sup>10</sup> The action plan presented in Document 3 gives the details for one of the three towns only, while for the other two towns I added the total man months which were scheduled by the consultant.

and executed according to the action plan, the result should be verifiable

The governing principle of auditable accounting makes it necessary to agree in advance on goals, a list of supportive measures with their prices (on a separate list), an action plan with a time schedule, and on criteria which can verify the effects of the intervention. However, during the execution of a project it is normally expected to have certain deviations from the original plan. The negotiations about how to accommodate the unscheduled activities offer a deeper understanding of what the project steering instruments are all about.

The consultant has to draw up quarterly reports on his activities (Document 5). The main purpose of these reports is to account for the resources used and thereby to compare the action plan with the actual progress of the activities. Deviations from the plan have to be justified by the consultant and can be accepted or not accepted by the project agent and the financier. Accordingly, the action plan will or will not be adjusted to real developments. In the end this is always a question which includes financial aspects. The logic of development projects makes it quite feasible that project agent and consultant have a common interest in extending the range of project activities. Both can gain from project extensions, while the financier can lose by these extensions in terms of his juridical accountability against the ministry in charge.

This logic goes as follows: Any development project can be envisaged as a kind of exterritorial zone with a security fence around it. This fence is there to prevent the always comparatively gigantic project resources to diffuse out into the heavily under-resourced project environment. But it is also there to prevent the intrusion of the environment into the project. The reason given for a development project, particularly for an organizational improvement project, has to be – by definition – some kind of deficiency; otherwise it would not be necessary to have a project at all. At the same time, the very concept of acting against the deficiency by starting a development project, as I have described projects up to now, first of all means drawing a fence around the one particular problem area one wishes to tackle. That is to say: in order to change the way a human collective is running its affairs one has to draw a boundary around a particular field of action to get started at all. Defining projects is primarily an exercise in this kind of priority-setting and boundary-drawing.

During the course of a project disputes over the question whether the particular boundary of the project was drawn effectual or not can therefore hardly be avoided. To change something for the better within the boundary of the project is unavoidably linked to factors outside the project competence. The consultant can increase the size of his contract and thus his profit by arguing that the original boundary was not drawn in an effective manner. His argument will be that he cannot do much within the limits set by the contract and that this was not predictable at the beginning of the project. If the envisaged results are to be kept unchanged, the project boundary has to be extended at certain points which he can easily explain in great detail. In most cases the project agent will be readily inclined to support this argumentation since it is not his own money. The financier, of course, is well aware of this logic. The project steering instruments I have introduced in this section are his tools for discouraging strategic alliances between consultant and project agent to extend the project volume beyond the limits set by the available budget.

For many years the official rhetoric of all international and national development agencies has discredited the so called blue-print approach. Instead one can hear worldwide unison propagation of the so called participatory approach. Basically this means that the logic of development projects I have just worked out is officially denied. The local project agencies are meant to take over the ownership of the project and get as many people as possible to participate. Only those projects which are locally appropriated have a chance to survive the duration of funding and become sustainable institutions. These and similarly reasonable statements are permanently repeated by donor agencies. While there are, of course, varying degrees of rigidity in sticking to the original project plan as a blue-print, the basic problem remains unsolvable against all rhetoric of participation:

Transferring resources requires accounting for these resources, and accounting requires ex ante definitions of what a project is meant to achieve by what means and in what time in order to verify the results and to account for the transfer. All this implies the so called blue-print approach. Now, inviting the participation of everybody concerned with a project with their local and practical knowledge (m□tis) inevitably results in more or less radical unpredictability. Without giving up the priority to achieve a certain ex ante defined goal the introduction of participation is meaningless. Since, however, predictability is indispensable for

the donor side, certain compromises have to be made in practice: The meaning of "participation" is redefined in the context of development cooperation by excluding the goals and the means to achieve these goals from negotiations. While it is anyway hard to imagine a way out of this game, there is a second, less obvious reason why the blue-print approach does not disappear from the field of economic cooperation in practice. By way of introducing this argument – I will come back to it – it is interesting to note that the insistent rhetoric of participation, ownership and local knowledge comes from the side of the donor agencies rather than from the side of the local project beneficiaries.

# Negotiating the boundaries of development aid projects

So far I have stated that projects facilitate action where the paradoxical combination of accountability and predictability would otherwise lead to non-action. I have further stated that projects are the social form ideally congruent with the universal demand for a new rationality of governance to be achieved by monitoring practices through auditable accounts. In order to achieve this congruence a project needs ex ante defined project tools, of which the action plan is the most important one. I have also presented the logic of development aid projects, or more precisely: the logic which any actor in the field assumes to be guiding the moves of the other actors. And I have finally stated that the official rhetoric of participation does not change the necessity of operating with blue-prints when it comes to accounting for resources. The question now is: How exactly does the governing principle of achieving accountability by means of auditable accounts effect negotiations about project boundaries? And thus finally: How does the translation of accountability into auditable accounts affect project work?

In order to deal with this question I restrict myself to one single activity within the project "Organizational Improvement of the Urban Water and Sewerage Departments in Arusha, Moshi and Tanga (Tanzania)". The table with the supportive measures (Document 2) contains the activity "Re-organization of billing zones according to distribution of pipe network" as "Code 002". It is obvious that this activity – in order to lead

to meaningful results – presupposes the existence of a complete and reliable list of customers and the existence of a valid map of the pipe network. I will exclude the issue of mapping the pipe networks capriciously hiding beneath the streets of Arusha, Moshi and Tanga, and focus instead on customer lists only.

Within the action plan for this project one can see that the activity coded 002 ("Re-organisation of zones/Re-classification of clients") was meant to take two months in each town and it was scheduled to be completed not later than six months after the de jure start of the project (in Document 3 one finds the detailed figures for Arusha only, one of the three towns). Looking at the project report covering the fourth quarter and including the accumulated figures for the first project year (Document 5), one finds that of the six man-months assigned to Code 002 (in line 3.3 of the table), only 0.50 man-months had been used by the end of the first year. Looking at line 4.4 one discovers, on the other hand, that nine man-months were used for "Correction and Verification of Data" – an activity which was not scheduled at all. Obviously something went wrong. But what exactly was it?

I mentioned above that the key issue of the project was to achieve financial viability for the three urban water works, and that this primarily meant reducing the unaccounted for water from something between 40 and 70% to a tolerable percentage of less then 10% commercial losses (Document 4, indicators 5 and 6). The main and immediate reason for the remarkably huge percentage of unaccounted for water was known from the very beginning of the project: the water works simply had lost track of most of their customers. This, of course, meant that even if more water was billed, the revenue would not increase because the bills would still not reach more customers. Obviously, the customer list had to be corrected by running so- called customer surveys in the three towns. It was already during the inception phase of the project that the activity "customer survey" became one of the controversial issues.

The consultant proposed including the customer survey into his action plan. According to the logic of defining project boundaries and different categories input, the financier interpreted the consultant's proposal as a cheap move to extend the project boundary and thus to increase his profits. In this particular case the project agent did not support the consultant's proposal but immediately took the side of the financier. The usual pattern of alliance was overrun here by several more powerful arguments.

For reasons of space, I can only enumerate the three main arguments: Firstly, to concede that the customer survey has to be carried out by a foreign consultant is a great embarrassment for the local management of the waterworks. Secondly, to allow a consultant to run the costumer survey means giving him access to highly sensitive information related to special arrangements with special customers. And thirdly, the CEOs of the three waterworks were – according to their over-the-top management style – actually unaware of the endless complications a customer survey can cause.

At the end of the inception phase it was finally agreed that the consultant is only in charge of reorganizing the billing zones (Code 002) and of introducing a new computerized billing system (Code 003). A full and reliable customer list is obviously required for this input to generate any results. It was agreed that the local project agents (in fact there were three agents, for each town one) carry out the customer surveys to correct their lists containing the necessary data on their customers.

We can now go back to the fourth quarterly report (Document 5), where we encountered the puzzle: Instead of reorganizing the billing zones during the first project year (line 3.3), the consultant was busy with "correction and verification of data" (line 4.4) – this with reference to customer data. In addition to this, in line 3.4 of the same report the consultant admits having overrun the costs for "development of computerised billing system" (Code 003) by 214% at the end of the first year, while the activity was only completed by 95%.

Two things had happened. <sup>11</sup> Firstly, in accordance with the above-mentioned logic of negotiating project boundaries and categories of input, the definition of "computerised billing system" was changed by an early agreement between consultant and project agent. These two parties were of the opinion that the introduction of a more sophisticated and tailor-made software labelled "Water Management System" (WMS) would be necessary to achieve the project goals. One of their key arguments was that a more encompassing software would take over some of the disciplining functions from the behavioural level of the project. Computerizing as much as possible in the field of aggregating and distributing data

<sup>&</sup>lt;sup>11</sup> The complete story is much more complicated, of course. However, it seems legitimate to leave out several aspects and restrict this narrative to aspects of immediate interest to accountability.

would thus make the three companies more independent from human failure and therefore more reliable and consequently also more profitable (provided the investment was paid by a grant and not a credit). The financier was not fully convinced by this argumentation, but he did not strictly interfere. The 214% overrun costs reported in line 3.4 at least partly resulted out of this extension of the project. The other part of the overrun costs attributed to code 003 were in fact generated by activities related to the next point.

Secondly, the local project agents did not come up with the promised customer data - not even one year after the deadline had passed. For the consultant this was a precarious situation since his profit was linked to achieving the project goals. Without reliable customer data the main goal, financial viability, could not be achieved. He was thus getting involved in the issues of customer surveys in the three towns in order to prevent a substantial financial loss on his side. In consequence, the boundary between the consultant's two tasks - namely: "Reorganization of zones" (Code 002) and "Development of computerised billing system" (Code 003) - and the one task of the project agents - namely: "Customer survey" - became increasingly blurred. The interface between competences started to change from an originally clear demarcation line to a seamless overlap of activities. The initial idea that the one party deliver the new zones plus the new computerized billing system (now extended to the so-called Water Management System) while the other party delivers the customer data began to vanish.

While the project agents easily agreed to extend the billing system to the Water Management System, they did not accept the extension of the project boundary to include the customer survey. And they were particularly opposed to the blurring of responsibilities by overlapping interfaces between project and company. Instead, they strategically argued in the opposite direction (while in fact they knew better): The customer data were collected and handed over to the consultant in time and in good order. The problem with the available lists was less that the data were simply incorrect and inconsistent, as the consultant stated. The problem was rather, as they maintained, that the format of the available data would not fit the format required by the new Water Management System. And this, so the strategic argument continued, was entirely the consultant's problem because the data were there first, ever since the projected had started. The consultant should therefore have adapted the tailor-made software

called Water Management System to the available data and not vice versa. In summary: From this point of view the project did not have to be extended and the interface between the realms of responsibilities did not have to be blurred.

From the consultant's point of view the story was different: During the first year of the project he had to use nine extra man-months to improve the reliability and consistency of the customer data although this was not his job according to the contract. Additionally he had to hide further input into this activity by assigning it to code 003 (development of billing system). After several months of negotiations an agreement could not be achieved and the project came to a premature end.

### 7. Auditable accounts of development aid projects

Usually, one assumes that accounting and auditing have been invented to bring clarity precisely into these kinds of situations. If two or several parties disagree on what actually happened in relation to what should have happened, they simply have to compare the contract and the project steering instruments with the activity reports and the financial accounts in order to give evidence of what actually happened. So the story goes: unavoidably. Apparently this clarification was not possible in the case of the our project. Mid-way into the project most of the money had been spent with nearly no results that came anywhere close to the goals set at the beginning. Again and for the last time: What went wrong?

By definition, the translation of the great ideals of development aid into limited, accountable projects goes along with shifting the priority from results to technical and financial accounting for single activities. Once technical and financial accounting have been introduced, it is difficult to agree mid-way on redefinitions and extensions of programmes even if the original goals cannot be achieved according to plan. Agreeing on changes and extensions of project activities opens all doors for an endless sequence of further and further extensions. The project environment always gives ample causes for such moves and there is no possible end to this. The whole concept of starting with exactly delimited projects is threatened by project extensions, particularly by extensions in unforseen directions. Against his own rhetoric of participation, local owner-

ship and local knowledge the financier has thus to draw the line somewhere, and for this purpose he uses the project steering instruments as blue-prints to tie the project together.

Perhaps less visible, though of the same importance, is another consequence of the accounting principle: Financial accounting presupposes clear-cut interfaces. A piece of work – e.g. the customer survey – has to be attributed either to the one or to the other party. Attributing it by a certain percentage to the one or to the other party is already difficult enough. But insisting that the piece of work is the outcome of *true cooperation*, and accordingly further insisting that the contributions cannot really be assigned to different actors, ultimately means little else than refuting the possibility to financially account for cooperation at all. It certainly means that true cooperation cannot be split into units which can be assigned to the code number of the list of supportive measurements.

Now, the problem is that from the point of view of those who provide the resources for development aid projects financial accounting is absolutely indispensable. It goes without saying that no one would agree to contribute in the long run to a pool of resources to be distributed by an appointed agency in order to achieve certain goals if there would be no control over the use of the resources and the effects of their utilization. This again means that from this perspective overlapping interfaces have to be avoided under all circumstances. Limiting project purposes in advance and avoiding overlapping interfaces are thus two strategies pursued by development agencies, who are meant to represent the interests of those who provided the resources for development cooperation. Yet the reason these two strategies do not remain theory but are actually turned into practice cannot sufficiently be explained by the power of the development agencies, who are supposed to dominate the rules of the game since they provide the money.

For the rest of this chapter I will elaborate this point: I explained above that the local project agents' argument about the available customer data was strategic and false. This interpretation was simplified and not fully convincing. In reality it was only when the available lists were confronted with the strict demands of the computer programme (which, by the way, could import any format) towards the end of the first project year that the local managers began to realize what the devastating problems with their customer data were. This fact had to be kept out of the official project reporting, though. The local managers would have lost face

in admitting this somewhat late and for themselves surprising recognition of massive difficulties with bureaucratic procedures prevalent in their companies. To avoid this humiliating situation they opted for inverse argumentation and pushed the problem into the competence of the consultant.

By doing so they subscribed to the official definition of the situation. Accordingly, they were the project agents who bought a service from a consultant which was defined in the service contract. By applying this definition they also subscribed to the idea that technical and financial accounting was the most adequate procedure to run and control the project. This apparently full agreement with the position of the financier was in fact based on a quite different motive, though: Overlapping interfaces between consultant and project agent threaten the sovereignty of the project agent, while clear-cut demarcation lines between responsibilities keep the consultant at a safe distance. Rejecting true cooperation with the consultant hence constitutes an efficient manoeuver on the side of local management in order to preserve autonomy against project intrusion into their own company. It thus turns out that the project steering instruments and most importantly the strict delimitation of the project by clear-cut interfaces would be misunderstood if taken as hegemonic tools in the hands of the financier, the most powerful party in the game. They are at the same time defensive tools in the hands of the local project agencies.

The consultant, on the other hand, lives from the earnings he can make by running projects. Naturally, he will only be compensated for activities he can account for. As a result of this he too has to avoid as far as possible any activities that might not be accepted as necessary in terms of the project steering instruments.

In the end there emerges a deceptive agreement between the three parties – the financier, the project agent and the consultant – concerning the use of financial accounting and clear-cut interfaces. The financier sets his first priority on proving that the resources have been correctly used according to ex ante defined budgets, plans and procedures, all verified by auditable accounts. The consultant, of course, has to take care to deliver only those services he will be compensated for and hence services that have been budgeted in advance. And finally the project agent sets his first priority on defending his sovereignty by keeping the consultant out of his internal affairs. All three aims can best be achieved by strictly sticking to the so called blue-print approach: everything has to be exe-

cuted according to how it was planned before it actually started and everything must be translatable in auditable accounts. Anything that cannot fit into this category by definition is not part of the project and thus also not part of the verification of the project results. The crucial point in this approach is the common rejection of any joint effort by the consultant and local management in order to work out new ways of doing things that could not have been envisaged before the start of the project.

The case in point with our project "Organizational Improvement of the Urban Water and Sewerage Departments in Arusha, Moshi and Tanga (Tanzania)" is the issue with the customer survey. The initial definition of the interface between the tasks of the consultant and of the project agent had clearly failed. One year after the project had started the customer lists were more or less in the same hopeless condition as they were at the beginning. Yet during this period the common understanding of what the going concern of the whole project was about improved remarkably. The precondition for this improvement simply was to work together with overlapping interfaces and with no ready-made solutions at the hand of the consultant. In short: deviations from the original blue-print facilitated the original purpose of the blue-print.

While remarkably huge and joint efforts to organize customer surveys had started in the fifth quarter – out of pure desperation on the part of the consultant – the project began to instigate the most precious development by chance: the whole staff of the waterworks became involved and motivated to handle this challenge together with the consultant. The very idea to exactly distinguish between the various categories of input which can be attributed either to the consultant or to the project agent became impractical. The concept of buying a clearly defined service from the consultant became meaningless.

However, none of the parties involved could afford to stand up for this procedure for reasons I have just explained. They all continued to argue with criteria of technical and financial accounting as if there was a sharp demarcation line between the input. The principle of correctly following contractual obligations and technical and financial procedures was given more importance than the obvious achievement during this particular period of the project when things really began to move once the blue-print was inapplicable. By jointly setting the priority on the demarcation of new boundaries to avoid the seamless overlap of responsibilities the very idea of instigating development by working together was betrayed.

The conclusion of my case study is that juridical accountability does not work if it is reduced to technical and financial accounting and both are disconnected from discoursive accountability. The organizational field of economic cooperation is strangely removed from any effective discoursive accountability.

One of the main reasons for this peculiar phenomenon is grounded in the popular craze about the social effectiveness of financial accounting and auditing. The Western institutions of development cooperation surround themselves with ever more sophisticated forms of financial accounting and auditing of single projects and thereby shield themselves off against discoursive, political forms of accountability for the development of countries, continents and different ways of life. A decisive precondition for this arrangement to work – and that is the core of my argument – is given by the fact that interpreting development cooperation as the delivery of a specific and accountable service protects the sovereignty of the project beneficiaries. It is this particular protective role of readymade models that finally attributes universal validity to these models. Once this fictitious universal validity has been established as fact, accountability for development aid can legitimately present itself as a simple matter of financial and technical accounting.

Against those who argue that politico-jural accountability can be made hard and rigouros by translating it into financial accounting and auditing, my case study demonstrates that this is not always the case. It is true that translating high-flown interventions into technically and financially auditable projects circumvents the paradox between predictability and accountability. Yet, when this translation becomes disconnected from discoursive accountability – as in the case of development aid – it produces deplorable unpredictability for which in the end no one can be held responsible.

# Document 1: Logframe

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS /
	MEANS OF VERIFICATION
OVERALL GOAL:	for OVERALL GOAL:
Urban Water Supply and Sewerage Serv-	Clean Water is supplied at fair prices to an increas-
ices in the three towns Arusha, Moshi, and	ing part of the urban population> Maji / WB statis-
Tanga improved	tics
PROJECT PURPOSE:	for PROJECT PURPOSE:
Urban Water Supply + Sewerage Depart-	The UWSDs** have improved their customer serv-
ments** in the towns of Arusha, Moshi and	ices and operate thereby recovering at least cost in-
Tanga sustainably installed as independent,	cluding depreciation on investments> Annual Re-
self-financing units.	port / Profit and loss accounts
OUTPUTS:	for OUTPUTS:
1. The losses of water in the distribution	6. Un-accounted for water accounts for < 30% of
system are under reasonable control	water produced> Production and sales statistics
2. The customers are more regularly sup-	7. Water rationing is reduced to unavoidable cases
plied with sufficient water of good quality at	> Annual Report
reasonable tariffs	a) Water quality is up to Tanzanian standards>
The administrative and management	Water analyses
systems necessary to run the departments	b) More than 90% of population in supply area are
as self-financing units are in place	supplied> Customer survey
4. The UWSDs' staff are adequately posted,	c) The number of debtors is small (< 5%)> Debt-
motivated and trained to apply the systems	ors list
efficiently	8. The income exceeds the costs> Profit and loss
5. Effective financial and investment man-	account
agement is implemented	9. The cash flow is consistently positive> Credi-
	tors list
	10. The staff display commercial behaviour and
	competence> Other indicators fulfilled
	11. Financial and investment planning are adequate
INPUTS:	> Annual planning COSTS:
12. Implement an effective water manage-	see Annex 5 of the proposal
ment system (metering, leak detection + re-	occident of the proposal
pair, detection of illegal connections, etc.)	
step by step	
13. Implement a revised cost covering tariff	* Advisory Board = equivalent to Board of Directors
system	
14. Develop and implement appropriate	
administrative and management systems	
a) Procure and deliver office and control	** The terms UWSD and Advisory Board apply to
equipment (and other means) initially re-	currectly active organisation or monitoring units.
quired to apply the systems appropriately in	Following restructuring and changes in legislation
practice	presently under way, these names might be
15. Identify manpower / improve organisa-	changed.
tion structure	
a) Train staff on the job (systems) in terms	
of behaviour (customer relations) and man-	
agement skills	
b) Develop and implement motivating remu-	
neration system	
16. Provide financial means to implement	
economically viable small projects in the	
department according to annual planning	

IMPORTANT ASSUMPTIONS	OBJECTIVELY VERIFIABLE INDICATORS / MEANS OF VERIFICATION
for OVERALL GOAL: The current probation period for the UWSDs in Arusha, Moshi, and Tanga to run under the "Revolving Fund Act" is prolonged and, in terms of freedom of action, extended for PROJECT PURPOSE:  17. Sound commercial behaviour (of a water company catering for commercial and luxury requirements as well as for basic needs) is accepted as the governing business rule by the Advisory Board* **  18. The responsible authorities allow / help the UWSDs to select, post, motivate and remunerate staff in a way to serve the business objectives of the UWSDs	for ASSUMPTIONS - OVERALL GOAL: Statements and action taken by Maji and other authorities involved  for ASSUMPTIONS - PROJECT PURPOSE: Action taken by the Advisory Board* ** and / or Maji
for OUTPUTS:  19. The distribution system is not yet in a state beyond economical repair a) The production is sufficient to satisfy the demand provided that sound cost recovering tariffs are applied which subsidise, if any, the basic needs only b) The transmission mains are in acceptable condition or could be repaired with UWSDs' means 20. UWSDs have gained an image of efficiency and reliability 21. A new water saving, cost-recovering tariff system is approved by the Advisory Board 22. A motivating remuneration system is approved by Maji / Advisory Board* **	for ASSUMPTIONS - OUTPUTS:  23. Status reports on systems based on detailed investigations, measurements, etc.  24. Customer interviews  25. Tariff elaborated and approved by Advisory Board* **  26. Remuneration system elaborated and approved by authorities

# Richard Rottenburg

Document 2: Supportive Measures - UWSD Arusha, Moshi + Tanga (extract)

Code	Designation	Problem
001	Improvement of Billing, Revenue Collection and Marketing	Billing and revenue collection used to be a secondary if not lower-rated priority in the past. It is understood, at least by the UWSE (Manager), that it has to gain first priority if the UWSD shall survive as an independent unit, but old habits die hard. The attitude of UWSD staff to billing and revenue collection is still quite relaxed. In addition, it could be observed that the approach to clients is more like one of asking for a donation than that of a service provider being entitled to be remunerated for his services. Part of this problem might be that in the given socio-cultural environment tough insisting on payments is not a common attitude.
002	Re-organisation of the billing zones according to distribution pipe network	The system of billing zones currently applied is not related to the consumption areas supplied by a certain pipe branch (pipe tree). Originally the billing zones were identical with neighbourhoods. However, the number of consumers in a zone is limited to 999 by the capacity of the computer programme, and as a result new consumers are assigned to new zones, regardless of where they are located.
003	Design, develop- ment and imple- mentation of a new computer- ised billing sys- tem	The EDP-programme package in use is neither devised with the minimum of data input control nor with any analytical function to allow area-related consumption control or other valuable management information.
* 2*		
	3	

Solution	Inputs required
Billing and revenue collection is certainly of fundamental importance for the survival of the UWSD.  The attitude of UWSD in relation to billing and revenue collection has to change if the UWSD shall survive as an independent unit. The civil service attitude has to be changed to a commercial attitude. To achieve these changes training is required, as well as the implementation of a result-related incentive scheme.  In addition it must become clear to the clients and and all UWSD staff members that delivery of safe water is a costly service which, if not remunerated appropriately, cannot be continued in the long run. To this end marketing, public relation and corperate identity of of UWSD become important features that have to be addressed in an appropriately planned manner.	Approximately 5 short term courses (1-2 days) conducted by an institutional development expert, plus his assistance with the design and implementation of an incentive scheme and of appropriate marketing measures (1.5 man-months).
The objective of the re-organisation of zones has to be that the billing - zones (consumer areas) become identical with the supply areas served by a specific pipe (tree of pipes). Specifically in down -town areas with several pipes installed in parallel at various stages, this objective will require significant efforts; however, it is a prerequisite for rational water management.  The re-organisation has to be carried out area by area, according to a priority plan.	Approx. 3 man-months of a water distribution expert to analyse and code the system and to train a task force on the job.  20 bulk water meters + 1 ultrasonic flow meter
Due to the unsuitable approach currently applied in the EDP programme package, and the fact that the system is outdated by the latest technical developments in EDP software and hardware, it is advised that the existing system be abandoned completely. It seems to be advisable to choose a completely new approach to computerised billing, by developing user-friendly computer software based on a common relational database system (d-base or paradox). The new system should include:  — Input control functions (e.g. authorisation required for input of abnormal consumption, etc.)  — Printing of standard bill including a bar code containing consumer code and amount due  — Linkage of consumer records and financial (revenue collection) records  — Automatic provision of monthly management information (list of unusual consumption, prioritised list of clients to be disconnected, accumulated consumption per pipe (pipe tree), etc.)  — Provision for free formulated analysis of data including their graphical presentation	Approx. 3 man-months of a systems analyst / programmer 1 network server 6 work stations 3 printers 3 ups network software, database system, etc.

Document 3: Supportive Measures for UWSDs Arusha, Moshi, Tanga Preliminary Work + Time Schedule

\*Timing of project might be adjusted according to external developments

Task	Code		996 Apr	x	x+1	x+2	x+3	Tx+4	1x+5	Tx+6	x+7	x+8	x+9	x+10	x+11	x+12	x+13	x+14	x+15	x+16	x+17	x+18	x+19	x+20	x+21	MM
Arusha	-	-	h da					port a							7	17.12	-		10	7. 10	-	10	10			
Advisory Boards constituted/Tariff increase agreed for 1/1/95	000	-	T	T	Г			T	T	T	T	T	T	Ť		_		1		_				1		-
Selecting and contracting a consultant	000	$\vdash$	+	1		_	$\vdash$	+	+	$\vdash$	1	$\vdash$	-	_		$\vdash$	$\vdash$				_				$\overline{}$	
Definition of Action Programme	000	6888	18888	al l	$\vdash$		$\vdash$	+	+	+	$\vdash$	$\vdash$	$\vdash$	_	_	$\vdash$			_	_			_			1.0
Improvement of Billing	001	10000	10000	٦		***		+	+	+	$\vdash$	-	$\vdash$			_										0.5
Re-organisation of Zones/Re-classification of Clients	002	$\vdash$	1	1	-	bonne		+	1	+	$\vdash$	$\vdash$											_		$\neg$	2.0
Development of an analytical "Billing System"	003		+	1		IIII	im	ntm	т			_		1		<del>                                     </del>										2.5
Implementation of the new Billing System	003	$\vdash$	+	1	$\vdash$	-	-	1	Ш	$\vdash$	-	_	$\vdash$	_		_				_			_			0.5
Basic computer training of Billing Staff (Local external training)	004			1	$\vdash$	100	6000	1000																		0.0
Billing staff trained on the job	005	$\vdash$	1	1	$\vdash$	Sales and the	No.	-	- Contract	m				mm		m		m		mm		mm			Ш	2.0
Implementation of Commercial Accounting	006		1	1						1	1			T		1		1		-		-				0.5
Development of an analytical Accounting System	007	$\vdash$		1		1					$\vdash$															2.5
Implementation of the new Accounting System	007			1				1	Ш		$\vdash$															0.5
Accounting staff trained on the job	008		$\vdash$	1		$\vdash$		$\top$	1	IIII			$\vdash$	mm		IIIII				mm		mm		IIIII		2.0
Improvement of Water Distribution Management	009		$\vdash$	1				=	=	-																12.5
Leak Detection Team(s) trained on the job	010			1		$\vdash$	1111	1	$\top$				1////													2.0
Implementation of new Tariff	011		$\top$	1			1	1	$\top$	-	1000		1													1.0
Implementation of payment system	012	$\Box$		1					1																	0.2
System Analysis "Purchase + Supply"	013	Г	$\vdash$	1		Ш			$\top$																	1.0
Defn of Purchase and Supply Regs (within given legal framework)	013	$\Box$		1		T	Ш			$\top$																0.7
Identification of potential Suppliers (national + international ones)	013			1			Ш	Ш																		1.0
Purchase staff trained on the job	013			1			Г	T		Ш								Ш						ШШ		1.2
Institutional and Staff Development	014		T	1						T																1.2
Management Training	015			1	388					T																1.5
Supervisory Training	016			1				T	T	T																1.2
Managing of Financing Facility	017		T	1				$\top$		$\Box$	1888															1.0
Research 1				1	***		***	****					***	****	****	****	****	*****	****	****	****		****	****	<b>****</b>	0.0
Research 2				1	_	$\mathbb{H}$	m	m	$\mathbf{m}$	1	T	T	1	1	_	1								-	-	0.0
Continuous Coaching	018			1				T	T																	1.0
Arusha	T			1				T														Total				39.7
Tanga				1																		Total				27.0
Moshi				1							$\vdash$	$\vdash$										Total				27.0
	_		1	1			<u> </u>	+	1	<b>†</b>	+		-	-	-	1	_				_		-		$\rightarrow$	_

# Document 3 (part two)

Training/Advisory Staff Demand	1	996																							ММ
	Mar	Apr	х	x+1	x+2	x+3	X+4	1 x+5	x+6	x+7	x+8	x+9	x+10	x+11	x+12	x+13	x+14	x+15	x+16	x+17	x+18	x+19	x+20	x+21	IVIIVI
Management & Institutional Development Experts	1988			888		1000													Ī			10000			16.2
Water & Sanitation Expert 1							E	=	=	E							-								22.5
Water & Sanitation Expert 2				- Contract																					20.0
Leak Detection Expert			1				X///	X///					<b>V////</b>												5.0
Systems Analyst/Programmer with Training Experience					Ш	Ш	Ш	Ш		ШП	Ш	Ш	Ш		$\mathbf{m}$	Ш					IIIII	IIIIII	IIIII	mm	16.0
Systems Analyst with Financial Accounting Experience																									4.5
Purchase Expert					Ш		Ш		Ш								Ш						Ш		6.5
Researcher 1				***																				*****	0.0
Researcher 2					Ш		Ш																		0.0
Continuous Coaching																									3.0

#### Document 4: Indicators

- (1) The regularly available and utilized production capacity amounts to > 80% of the installed capacity (this is an "operation indicator"). However, the responsibility of the consultant for both availability and utilization of production capacity must be limited to such measures that do not incur capital investment or do in other ways exceed the financial ressources freely available to the UWSDs.
- (2) Water rationing is reduced to zero except in the case of force majeure. Should water rationing for whatever reason become unavoidable, it has to be organised under all circumstances in such a way that the customers can rely on the time schedule for supply. (The same applies in case of other circumstances beyond the immediate influence of the project as for instance power cuts and / or such technical bottlenecks in the distribution and / or production system that cannot be remedied with the financial resources available.)
- (3) The quality of the potable water is sufficient to meet the Tanzanian quality standards (Act No 10 [1981] to ammend the Water Utilization Act, 1974). (Initial verification method: One sample per day taken by hand at noon at supply tank(s). Improvement envisaged: Regular sampling at various selected points of the distribution network.)
- (4) At least 90% of the population living within the given supply area (as defined above) are supplied with water by the UWSDs either through house connections or water kiosks. (Each inhabitant of the supply area may take as much water as he wants / can afford. The indicator verifies that the tariff applied is appropriate to regulate the demand and not forcing poor inhabitants to fetch their water from other distant sources.)
- (5) The commercial losses (unaccounted for water except caused by physical losses) are <10%. (The measurable losses are system losses due to physical losses plus commercial losses. They are targeted at <30%. However, the reduction of the physical losses can only to a limited extent be controlled by this programme.)</p>
- (6) Billing and collection efficiency are both >90%. (This performance level can be gained under the assumption that the legal support is sufficient to carry out a complete compound survey [access to compound] to disconnect non-paying legal and illegal customers immediately and without exemption and to improve on the contractual conditions [application of commercial laws instead of water laws].
- (7) The total amount owned by debtors accounts regularly for <5% of the turnover. ("Debtors" are in this context to be understood as those customers

- who are accumulating debts after the completion of the customer survey and introduction of the new billing and accounting systems. Old debts accumulated before the full implementation of the billing system are to be excluded from this calculation.)
- (8) The cash flow is positive on a regular basis. (Cost items falling due regularly monthly or in higher frequency salaries, social security, telephone, electricity, etc. must not be deferred to meet this indicator.)
- (9) The tariff is sufficient to cover >80% of the total costs. (Total costs are defined as: Expectable operation and maintenance costs of equipment and systems during its expected economical life time, appropriate depreciation, 5% interest on the capital and ex post compensation for unexpected investments.)
- (10) The Urban Water and Sewerage Departments improve their image as efficient corporations and fair service providers. (This soft indicator will be tested by three small opinion polls carried out 3 months, 15 months and 27 months after the start of the programme. Standardized questionnaires shall be utilised and handed to 100 participants, randomly selected from all customer categories.)

Document 5: Actions according to WT-Schedule of Inception Report until 30th June 1997

			total				
Chapter	Actions according to Incep-	Code	M/M	M/M	M/M***	Action***	M/M .
in Report	tion Report		planned	used	used	Compl.	add
					%	%	required
3.1	Definition of Action Programme,	000	3.00	3.00	100	100	-
	Reporting, etc						
3.2	Improvement of Billing	001	1.50	1.50	100	-	-
3.3	Reorganisation of Zones	002	6.00	0.50	8	10-20	-
3.4	Development of Computerised Billing System	003	2.50	5.35	214	95	-
3.5	Implementation of Computerised Billing System	003/005	7.50	2.15	29	10-20	-
3.6	External Training for Computer Operators	004	0.00	1.55	0	80	-
3.7	Development of Accounting and Cost Control System	006	2.50	2.50	100	90	-
3.8	Implementation of Accounting and Cost Control System	007/008	7.50	3.60	48	70	1.00
3.9	Water Distribution Management	009	18.75	7.40	39	?	?
3.10	Leak Detection Training	010	0.00	0.70	0	20	5.00
3.11	Tariff Structure	011/012	2.00	0.00	0	0	-
3.12	Development of Material Control and Purchase System	013	2.75	0.50	18	20	-
3.13	Implementation of Material Control and Purchase System	013	3.75	0.85	23	20	-
3.14	Institutional Development	014	4.50	6.00	133	70-80	
3.15	Remuneration Structure	014	1.00	0.85	85	90	-
3.16	Definition of Training for Managers and Other Key Staff	015	0.50	0.00	0	0	-
3.17	Internal Management Training	015	4.00	0.60	15	30	-
3.18	External Management Training		0.00	0.00	0	0	-
3.19	Supervisory Training	016	2.75	0.25	9	30	-
3.20	Development and Implementa-	(17)	3.00	0.75	25	40	-
	tion of Mangement System						
	Subtotal Actions acc.to Incep-		73.50	38.05			
	tion Report						
	Additional Actions not in Incep-						
4.2	tion Report already in Progress			4.90			
4.2	Emergency Measures Computer network Set-Up			1.90			1.00
4.4	Computer network Set-Up  Correction and Verification of			9.00			6.00
4.4	Data			9.00			6.00
4.5	Clarification of Legal Framework			1.75			2.00
	Subtotal Action not in Incep-			17.55			
	tion Report but already in						
	Progress						
	Total of Actions		73.50	55.60			
	Total additional necessary		20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17.55		Beer	15.00
	M/M						A Fig.

<sup>\*\*\*</sup>Remark: In case that "0 M/M used" is indicated but action is already partly completed, a clear allocation of time to this activity is not possible or this activity has to be considered in very close relation to another activity

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