

APPENDICES

With the Advisory review of the master plan for the
rehabilitation of Lake Tai (first phase) in the People's
Republic of China

(appendices 1 to 6)

APPENDIX 1a


Letter from DOB, 1st May 2000 in which the Commission has been asked to submit an advisory review of the master plan for rehabilitation of Lake Tai (first phase) in the People's Republic China.

Ministerie van

Buitenlandse Zaken

Commissie MER
T.a.v. dhr. Arend Kolhof
Postbus 2345
3500 GH Utrecht

Directie Ontwikkelingssamenwerking en
Nederlands Bedrijfsleven
Bezuidenhoutseweg 67
Postbus 20061
2500 EB Den Haag

	Commissie voor de M.E.R.
INGEKOMEN	03 MEI 2000
nummer:	
doosnr:	039 - 001 4msog
kopie naar:	Kh, P, R, Sc, Mo, J

Datum 1 mei 2000

Kenmerk DOB-0654.kjo/00

Blad 1/1

Bijlage(n) haalbaarheidsstudie, NEI rapport en technisch rapport (retour DOB svp), copy van aanvraag, contract, memo en verklaring China (niet retour)

Betreft Opstellen ToR voor monitoring Lake Tai Hu, Miliev 99/20

C.c. DML/MI (dhr. Blom)

Behandeld drs C.J. Ouwerkerk

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Geachte heer Kolhof,

Bijgaand treft u een aantal bijlagen m.b.t. een MILIEV-project in China. Ik zou u vriendelijk willen verzoeken voor dit project de Terms of Reference op te stellen voor een tweemaalige monitoring en een geschikte monitor voor te dragen. Voor het opstellen van de ToR verwijs ik naar de voorgestelde uitspraak in hoofdstuk 3 van het beoordelingsmemorandum DOB-0369.kjo/00. Het betreft een tweemaalige monitoring i.s.m. de Chinezen. Ik verzoek u de financiële consequenties van de tweemaalige monitoring in uw advies mee te nemen.

Het is de bedoeling dit project aan te bieden tijdens het aankomend beleidsoverleg half mei met het Chinese Ministry of Finance. Daarom verzoek ik u vriendelijk de ToR uiterlijk 9 mei bij DOB in te dienen. Zodoende is er nog voldoende tijd om de schenkingsovereenkomst op te stellen. Mocht u vragen hebben, dan kunt u contact opnemen met dhr. Ouwerkerk op tel.nr. 070-348 67 97.

Hoogachtend,

H.P. Verhoeff

Plv Directeur DOB

APPENDIX 1b

Translation of the letter from DOB, 1st May 2000 in which the Commission has been asked to submit an advisory review of the master plan for rehabilitation of Lake Tai (first phase) in the People's Republic China.

Dear Mr Kolhof,

Please find enclosed a number of appendices regarding a MILIEV- project in China. I would kindly like to ask you to provide the Terms of Reference for two monitoring phases and to recommend a suitable monitor. To enable you to draft the ToR, I would like to point you to the proposed decision in chapter 3 of the assessment memorandum DOB-0369.kjo/00. It concerns two monitoring phases in co-operation with the China. I would like to ask you to include the financial consequences of the two monitoring phases in your advice.

The intention is to offer this project during the coming policy meeting with the Chinese Ministry of Finance in May. Therefore I would like to ask you to hand in the ToR at the DOB, on the 9 May at the latest. That way there will be sufficient time to draw up the donation agreement. If you have any questions, please contact mr Ouwerkerk on telephone number 070-348 67 97.

APPENDIX 2

Project information

Proposed activity: The preparation of a Master plan study for rehabilitation of the water quality of Lake Tai, China.

Categories: Environmental policy DAC/CRS code 92110

Project numbers: Ministry of Foreign Affairs, Directorate Development Co-operation and Private Sector DOB-0654.kjo/00; Commission for EIA 039

Procedural information:

Request for advice: 1 May 2000

Draft advice submitted: 29 September 2000

Site visit to China: 2-10 November 2001

Advisory review (first phase): 10 Januari 2002

Significant details: The study started in September 2000 and consists of two phases of respectively 10 and 14 months. In the first phase data on water quality and the applied sewage systems for industry and households will be gathered and analysed. In the second phase scenarios will be assessed and compared. The Commission is requested to monitor the study together with Chinese assessors. A draft advice for ToR has been submitted. In the summer of 2001 the project will be visited and the final advice for ToR will be made.

A Netherlands working group of the Commission for EIA in close collaboration with Chinese experts executed a joint review of the first phase (draft Engineering study) of the Lake Tai project and visited the Lake from 2 –10 November 2001. The main findings of the review are as follows: essential information at this stage of the study (end of first phase) is not yet available. Moreover, part of this information is not yet planned to be gathered in the second phase. As a result the quality of the Master plan will be effected negatively and a first step towards integrated water resources management can only be achieved in case the recommendations are taken seriously. Additional information should be gathered on non-point sources pollution, ecology and fisheries in order to make an adequate assessment of different scenarios for rehabilitation of the different functions of the Lake possible.

Members of the working group:

Mr S. Groot

Mr J.G.L. de Schutter

Mr D de Zeeuw (chairman)

Chinese experts (no member of the working group) :

Mrs Liu Hongzhi

Mr Wu Jie

Secretary of the working group: Mr A.J. Kolhoff

APPENDIX 3

Programme: Site visit Netherlands Commission for EIA 1 – 10 November 2001

1 th	10.40	Departure Amsterdam
2 th	09:30	Arrival in Beijing
	15:00	Meeting with PCD and FECO in SEPA; Lu Xinyuan (director PCD), Liu Hongzhi (director Water division-PCD) Wen Wurui (deputy director FECO), Yang Xiao Ling (deputy director FECO); Fang Li (program officer FECO), Wu Jie (program officer FECO), Ma Qi (ass. professor)
3 th	7.30	Departure Beijing
	9:05	Arrival in Nanjing,
	14:00	Meeting at NIES and IEDC; Zhang Yongchun (ass. director NIES), Jiang Xiliu (professor NIES), Huang Yibin (vice director IEDC), Jun Wang (IEDC)
4 th	8:30	Departure Nanjing and travel to Wuxi
	12.30	Meeting at Environmental Monitoring Centre and Environmental Protection bureau in Wuxi; Ha Yong Zhong (director Monitoring Centre), Wu Zhi Jian (deputy director Monitoring centre), Jiang Yao Ci (Monitoring centre), Wu Zhi Jian (Monitoring centre), Gu Gang (vice director EPB), Hua Yong Zhong (senior engineer EPB)
	15.00	Visit Lake Tai
5 th	8:00	Departure Wuxi and travel to Huzhou
	Morning	Visiting area around Lake Tai
	12.00	Meeting at Zhejiang Environmental Monitoring Centre and Zhejiang Environmental Protection Bureau and Environmental Protection Agency Huzhou; Song (director Monitoring centre), Wang Xia Zuan (vice director Monitoring centre), Zheng Ping (director EPB), Ge Weihua (deputy director EPB), Wang An Jian (director Environmental Protection Agency Huzhou)
		Travel to Hangzhou
6 th	Morning	Departure Hangzhou and travel to Shanghai
	13.00	Meeting at Taihu Basin Authority; Zhu Wei (deputy director)
7 th	11.30	Departure Shanghai
	13:30	Arrival in Beijing
	16.00	Meeting with Song Guojun and Xiao-Dong Fu (Renmin University)
8 th		Drafting of report
9 th		Signing memorandum Chinese-Netherlands mission at SEPA
	Dinner	Meeting Royal Netherlands Embassy; Mark van der Voet
10 th	11:30	Departure China
	18.25	Arrival Amsterdam

10 December 10.30 hour; Visit Grontmij in Houten, the Netherlands: Enrico Moens, Richard Jonker, Mario Maessen en Erwin de Bruin.

APPENDIX 4

Main findings of the joint Chinese - Dutch mission

To: Minister Xie Zhenhua, State Environmental Protection Administration;
Minister E. Herfkens, Netherlands Ministry of International Development Co-operation.

Subject: Main findings of the review of the 'Master Plan for the Rehabilitation of Tai Lake' by the Chinese/Dutch working group;¹

Date: November 9, 2001.

Excellencies,

The members of the combined Chinese/Dutch working group hereby present the main findings of a joint mission on the Tai Lake project. We thank you wholeheartedly for the excellent organisation you provided which allowed us to do our work very effectively. Besides we appreciate very much the great hospitality of the Chinese hosts.

As agreed upon in the Grant Agreement China 2000.04, dated 19 May 2000, a joint Chinese-Netherlands working group visited China in order to review the project 'Master Plan for the Rehabilitation of Tai Lake'. The review has taken place from November 2 - 10, 2001. In this letter the main findings of the joint working group are presented. The review criteria have been agreed in the Terms of Reference of July 2000 stating that 'the joint review working group will review the products of the project based on the quality criteria completeness and correctness of the information'. The project consists of 2 phases resulting in an Engineering Study (first phase) and a Master Plan (second phase).

In this letter the main findings of the review of the ongoing Engineering Study are presented based on the reporting of the September Nanjing Workshop, the draft Engineering report (issued during the visit) and discussions with SEPA, institutions and authorities in Nanjing (a.o. National Institute for Environmental Sciences), Jiangsu and Zhejiang provinces (a.o. Environmental Protection Bureau), Renmin University, TBA and a visit to the Tai basin area.

The long-term objective is to maintain and rehabilitate the different functions of Tai Lake, such as drinking water supply, fish production and agricultural water supply. In this way, the project contributes to the goals of the 10th 5-Year Plan and the Year 2010 Taihu Basin Pollution Control and Prevention Plan. The project will develop a Master Plan in order to prioritise the measures to be taken. The short-term objective is the improvement of the water quality of Tai Lake by means of a 'cleaning-up programme', to be elaborated in the Engineering Study.

The joint working group observed that the importance of the project is recognised by all involved parties. Moreover, recently implemented measures are beginning to show a measurable effect on the water quality of Tai Lake.

¹ The text has been altered wherever necessary, purely for grammatical purposes. These changes do not alter the contents of the letter in any way.

Main findings of the joint working group

Data gathering & analysis

A significant part of the required data has been gathered and partly analysed. These data are regarded as data from existing and routine monitoring activities and from the Statistical Yearbooks. Part of the additional data collection through field surveys needs to be continued. The available information has resulted in a considerable amount of knowledge of the functioning of the Tai Lake basin system. We have observed that there has been a shift in the relative contributions from the point source pollution to the non-point source pollution. The Chinese government therefore decided to pay more attention to the non-point sources and ecological conservation in the 10th 5-Year Plan.

Agriculture

Based on the available reports of the task groups it is concluded that the agricultural sector is the main contributor to the total nutrient waste load entering Tai Lake (Nitrogen some 70% and Phosphorus some 80%). This implies that strategies to improve the water quality of Tai Lake must include measures to reduce this agricultural load. In order to select the most (cost) effective combination of measures it is necessary to make available predominantly qualitative knowledge on the agricultural production system and the resulting waste (water) production. It has been observed that significant knowledge in the field of non-point sources (agricultural waste loads) is still lacking and has to be made available in time in order to be able to prepare the decision framework of the Master Plan.

Ecology

The present eutrophication of the Tai Lake has resulted in considerable algae blooms, which hampers the self-purification, fish production, recreation value and reduces biological diversity. Based on the available reports of the task groups it is concluded that insufficient information and analysis on the cause-effect relations with regard to algae growth in Tai Lake has been made available through the project. Partly this information is planned to be provided by the water quality model. The information on cause-effect relations must be made available in time in order to be able to prepare the decision framework of the Master Plan.

Information on the occurrence of natural vegetation, fish and other animal species in and around Tai Lake has not yet been made available through the project. A quantitative description of this aspect might turn out to be difficult to obtain within the timeframe of this project. A qualitative description is required to determine the impact of the measures on biological diversity in general and fish production in particular.

In the inception report, the rehabilitation of wetlands is mentioned as one of the measures to be taken. The 10th 5-Year Plan and the Year 2010 Taihu Basin Pollution Control and Prevention Plan have adopted this approach. This measure should be assessed during the second phase of the project in order to judge the effectiveness for the rehabilitation of (potential) functions of Tai Lake.

Institutional setting

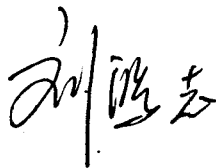
Improvement of the situation in Tai Lake requires a combined approach towards water quantity, water quality and environmental management. Integrated water management requires an effective co-operation between the institutes responsible for water quality and water quantity management. For Tai Lake this also includes co-operation with the Ministry of Agriculture. The joint working group supports the statement in the 10th 5-Year Plan to introduce institutional reforms in order to create a mandated structure to involve the responsible ministries and related institutes.

Project implementation

Delays due to insufficient capacity and delayed disbursement of funds of the project in phase 1 have resulted in changes to the internal organisation and management of the project. The joint working group is of the opinion that these changes will enhance the quality of the results of the project and contribute to its timely and effective implementation.

The joint working group observed that the 3D Water Quality Model OOMAS will be used. It is of the utmost importance that the software and manuals are delivered as soon as possible to make NIES familiar with the set up and processes included and to start the calibration. In the Inception report it has been stated that the TBWRPB's River Network Model will be used to relate the waste water production to the waste water discharges entering Tai Lake. The joint working group has been informed that the actual use of the River Network Model depends on the input requirements of the OOMAS model. Anyway, integrated water management requires combined water system information regarding the existing and future management practices in the basin. This project offers the opportunity to gain experience with the application of the principles of integrated water management through the exchange of data and information, and the effective co-operation between the institutes involved.

Signature:



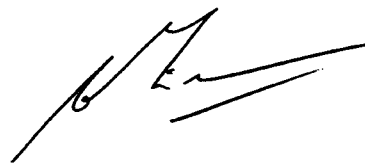
Mrs Liu Hongzhi

for

Mr Lu Xinyuan
Director General, Department of Pollution
Control and Prevention, SEPA

Beijing, 9 November 2001

Signature:



Mr Dick de Zeeuw

Deputy Chairman of the Netherlands
Commission for EIA &
Chairman of the joint working group

Beijing, 9 November 2001

APPENDIX 5

Review framework, Master plan Lake Tai, China

1. INTRODUCTION

This draft review framework will be used for a quality check of the information: (i) of the products of phase 1 and (ii) of the draft Master plan before the end of phase 2. The draft review framework has to be made site and project specific during the site visits by the joint mission. The review framework will be elaborated and applied as the study is an ongoing process of 24 months. The identification of priority projects in phase 1 is considered as one of the steps in developing strategies (complexes of interventions) which will be presented and compared under different scenarios in the Master plan. Therefore, in this framework is referred to the Master plan as a product to be reviewed. The first monitoring missions should be considered as an interim review.

2. PROBLEM ANALYSIS AND PROJECT SETTING

Description of problems and project setting is the necessary first step in appraisal and understanding of the technical and institutional issues at hand. The purpose of describing legislation, regulations and policies is: (i) to check if the intended strategies and scenarios comply with the assumed conditions and (ii) to get insight in the opportunities and constraints concerning the development of strategies and scenarios

Problem analysis

The Master plan must eventually state in clear terms the problems, which are expected to be solved following implementation of the projects formulated on the basis of strategies (complexes of measures taken on the basis of a certain policy). At least the following aspects should be addressed in the technical problem analysis:

- A description of the (underlying) causes of water pollution and a trend analysis;
- An analysis of the contamination of the lake (water and soil) and its environmental impacts; the analysis must contain an overview of all polluting agents entering the lake, including sources and the effects of this pollution;
- An analysis of the functions of the lake (such as: drinking water supply, fishing and aqua-culture, etc.) and the way they are affected (trend analysis).

The analysis of the problems should be studied with use of a water modeling study and the results of this study should be verifiable.

Project setting

Legal setting:

The Master plan must describe legislative and regulatory considerations and policies governing the proposed activities such as:

- policies, legislation, regulations and standards governing environmental quality (water and under water bottoms), health and safety as far as related to drinking water quality and waste treatment, functions of the lake, protection of biodiversity and sensitive areas (at regional and / or local level);
- an assessment of compliance with above mentioned rules and regulations and of law enforcement;
- land control, ownership and administrative issues;
- a description of relevant existing and proposed programmes / projects in the Lake Taihu area.

Institutional:

The Master plan must give a clear description of the institutional framework on the national, provincial and (if relevant) local level (Environmental Protection Bureau), including competent authorities directly involved in the execution of the study and the control and maintenance of the projects proposed as well as their monitoring criteria

Public involvement:

The Master plan must identify the stakeholder groups involved in the area of study and show how their opinions and interests did influence the final contents and recommendations of the Master plan.

3. PROJECT OBJECTIVES AND CRITERIA

The purpose of describing the project objectives and criteria is to facilitate the development of strategies and scenarios and to be able to assess if the proposed projects do solve the observed problems

The Master plan must state in clear terms the selected strategies (combinations of technical and institutional measures as a result of a certain policy) and the external conditions (scenario's) under which these strategies are assumed to be implemented. Criteria (water quality, fish production, economic growth, etc.) need to be established on the basis of which the overall objectives will be developed. The objectives should be as specific as possible and where possible quantified.

The objectives and criteria will provide the framework for identification, formulation and evaluation of alternatives in a later stage of the project. They will allow comparison of alternatives and presentation of results on the basis of models and techniques such multi criteria analysis.

4. IDENTIFICATION AND SELECTION OF STRATEGIES AND PROJECTS UNDER DIFFERENT SCENARIOS

The purpose of identifying, selecting and describing strategies (and projects) under different scenarios is to investigate potential alternative sites or strategy and project designs that may present environmentally favourable and socio-economically acceptable solutions.

The process of identification and selection / prioritising of strategies (combinations of complexes of measures) and projects should be described and criteria should be provided. The evaluation of potential options for improvement (the strategic part of the master plan) should be made on the level of strate-

gies (combination of policy measures) and on the level of individual projects (implementation)

Strategies and Projects

For each selected strategy the following information should be provided:

- description of the proposed combination of measures and activities;
- impacts of the strategies in relationship with the identified objectives and criteria.

For individual projects information should be provided as follows:

- description of the project activities;
- mitigating measures to reduce potential negative impacts (should be described as an integral part of the project);
- justification of the selected site(s);
- contribution of the project's overall objectives to solve the problems;
- feasibility including management and operations costs (public, private).

Description of a monitoring programme in order to follow the results / impacts of the project under implementation.

Scenarios

The Master plan has to describe the different scenarios (assumed uncertain exogenous developments such as climate change, economic growth or geo-hydrological changes) assumed to compare results (performance) of different strategies and projects. The 'no action (business as usual)' strategy should be described and considered as a reference situation.

When evaluating the performance of projects under different conditions the alternative most favourable to the environment should be described in the Master plan.

The purpose of the evaluation of different strategies and projects under different scenario's is to identify and assess the scope and significance of potential impacts (change of values of criteria). The impacts of the strategies (projects or combination of projects) on the natural environment as well as their socio-economic performance should be described. The key aspects to be considered are described in chapter 5.

5. DESCRIPTION OF THE ENVIRONMENT AND AUTONOMOUS DEVELOPMENT

The purpose of describing the current situation is to gather base line information to describe the current situation and autonomous development which functions as a reference situation. The purpose of describing the autonomous development is to provide a reference situation which enables comparison with the impacts of the strategies (projects) under different scenarios.

The study area should be demarcated. The present situation of the natural and the socio-economic environment of the study area should be described and these data will serve as basis for comparison of the environmental and socio-economic performance of different strategies under various scenarios. The description may be limited to those aspects that will be influenced by the

strategies (projects) and that will change under different scenarios and must cover the complete affected area.

The following issues should be addressed regarding the natural environment:

- hydrography, hydrology and water systems;
- surface water quality and sediment quality;
- flora and fauna (protected species and valuable non protected species)
- ecosystems (protected areas and valuable non-protected areas);
- ecological / life support functions (e.g. natural water purification / regulation functions).

The following aspects must be addressed regarding the socio-economic environment:

- total population in the study area;
- population density, growth, socio-economic situation, pressure on land;
- economic activities: (e.g. agriculture, industry, fishery, tourism, public services);
- production and carrier functions of the lake.

Health indicators such as:

- availability of freshwater;
- current status of treatment and discharge of sewage;
- current status of waste production of the area, solid waste treatment and disposal;
- actual health and environmental risk situation (related to contamination of the lake);
- sites of historical/cultural significance (information function);

6. COMPARISON OF STRATEGIES UNDER DIFFERENT SCENARIO'S

The purpose of comparing the impacts of the strategies (projects) under different scenarios is to get insight in the differences of the impacts (scoring on criteria in relationship with the objectives) of the strategies (projects or combinations of projects) in order to enable the selection of the preferred project / scenario combinations.

It is recommended to present the comparison in the form of tables and diagrams. In the comparison the current environmental and socio-economic situation, including expected autonomous developments ("business as usual") have to be presented as well. The Master plan must indicate the criteria for comparison including results at short term or at long term and to which extent the objectives of the overall initiative (project) can be met. Combinations of strategies and scenarios must be compared to commonly accepted standards as much as possible. Multi criteria analysis will be used as a method of comparison and presentation of the results.

8. GAPS IN KNOWLEDGE, MONITORING AND EVALUATION

The purpose of describing gaps in information and knowledge is to verify the risks involved in the implementation of a project as a consequence of: (i) gaps in knowledge and information and more or less uncontrollable events that will influence the future functioning and sustainability of the projects proposed.

In the Master plan lack of information must be identified. The importance of this information for decision making must be evaluated. The Master plan has

to indicate in which way and through which means serious knowledge gaps can be filled in or alleviated.

In the Master plan a technical monitoring plan must be presented. This plan must include at least the monitoring of:

- effectiveness of proposed mitigation measures;
- impacts which are irreversible or unavoidable;
- development of water quality.

The technical monitoring plan must indicate the institutions responsible for its implementation and the way this implementation is funded. This monitoring plan must also include a description of where, how and when sampling and other technical monitoring should be conducted.

A project evaluation plan has to be included in the Master plan, indicating criteria for evaluation and which institution will be responsible. The main item of evaluation will be to which extent the objectives of the overall strategy and individual projects have been fulfilled.

