



KUNGL. TEKNISKA HÖGSKOLAN
Institutionen för Mark- och vattenresurser

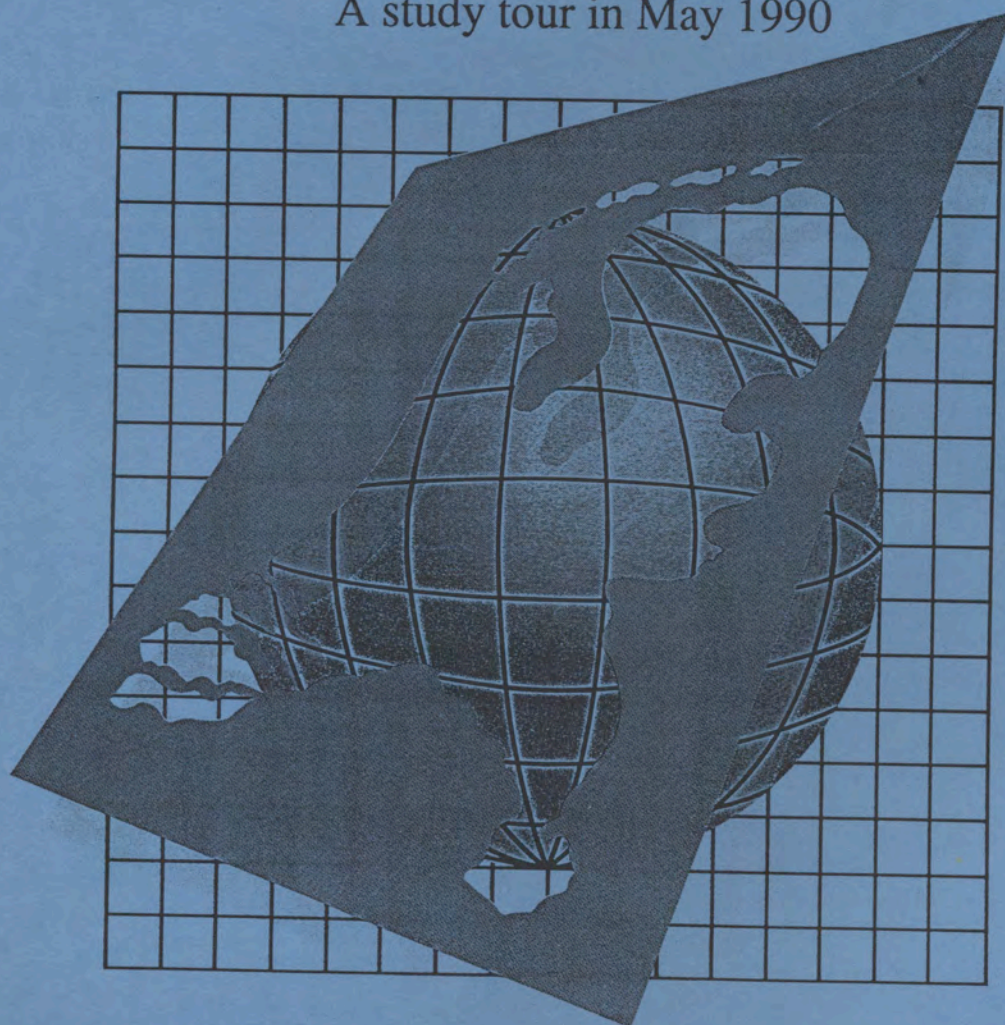
Royal Institute of Technology
Dept of Land and Water Resources

Examensarbeten och kursrapporter 90:6

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Ref ex

**CONCERN FOR THE NETHERLANDS -
LOCAL TO GLOBAL ENVIRONMENTAL THREATS
AND
MANAGEMENT STRATEGIES**

A study tour in May 1990



COURSE REPORT

STOCKHOLM 1990



CONTENTS

Preface

Study tour programme

List of participants

Project reports

Global climatic change

Hydrological changes in The Netherlands due to the greenhouse effect

Export and import of acidifying elements in The Netherlands

Acidification from the Dutch agriculture

Economic consequences of air pollution



PREFACE

Dept of Land and Water Resources

This report presents the results of two studies regarding environmental threats to The Netherlands. The first study deals with The Netherlands in the frame of global climatic change. It contains two parts; First a general background about global climatic change and, second, a study about the hydrological changes in The Netherlands due to the greenhouse effect. The second study is about acidification problems in The Netherlands, and consists of three different perspectives. First there is a study on export and import of acidifying substances in The Netherlands. The second deals with the agricultural sector and its contribution to acidification in the Netherlands. The last is about economical consequences of air pollution in general with emphasis on acidifying substances.

The studies have been carried out by 4th year students as an exercise in the course Planning and management of natural resources during spring term 1990. The project studies will be followed by a field tour to the Netherlands 8-16 May 1990.

We express our gratitude to our Dutch friends Truus Grondsma, Jan Simmers and Helenius Rogaar for their help in creating a good programme for our study tour.

Stockholm 4th May 1990

Erik Danfors
Thomas Gumbrecht

		12.30	Packed lunch.
		13.30	Departure Wageningen.
		14.00	Arrival at De Biesbosch. Boat trip through De Biesbosch area.
		17.00	Lecture about De Biesbosch - Dr. Volz.
		18.30	Departure for Delft.
		20.00	Accommodation at Natuurvriendenhuis August Reijndershuis.
Fri	11/5	09.00	Lecture about the Delta works and the sea level rise - Prof. d'Ambricourt, Delft university.
		10.30	Excursion to the Delta works and canaries south of Delft, including lecture and boat trip.
			Accommodation at Natuurvriendenhuis August Reijndershuis.
Sat	12/5	09.00	Short excursion through the horticultural area near Delft. Bus tour through the bulb growing district.
		12.00	Arrival in Amsterdam.
			Accommodation at Lancaster Hotel. Afternoon free.
Sun	13/5	09.00	Guided bus tour with emphasis on nature conservation and ecology in the Netherlands - Dr Henk Beys.
			Accommodation at Lancaster Hotel.



PROGRAMME FOR STUDY TOUR TO THE NETHERLANDS 8-16 MAY 1990

<u>Day</u>	<u>Date</u>	<u>Time</u>	<u>Programme</u>
Tues	8/5	10.00	Departure by bus from Stockholm. Ferry Trelleborg-Tra- vermünde.
Wed	9/5	14.00	Arrival Dutch boarder. Excursion through the Netherlands with focus on landscape (types and development) - Willem van de Westeringh.
		18.00	Arrival Wageningen. Accomodation at Youth hostel De Zilver- berg.
		20.00	Visit to ISRIC. Introduction - Dr Hans van Baren. Geology of the Netherlands - Dr Rob Felix.
Thur	10/5	09.00	Visit to the Winand Staring Centre. Introduction - Ing Ad Reij- merink. Excursion in the sand region north of Wageningen - Ing Ad Reijmerink.
		12.30	Packed lunch.
		13.30	Departure Wageningen.
		15.00	Arrival at De Biesbosch. Boat trip through De Biesbosch area.
		17.00	Lecture about De Biesbosch - Dr. Volz.
		18.30	Departure for Delft.
		20.00	Accomodation at Natuurvriedenshuis August Reitsmahuis.
Fri	11/5	09.00	Lecture about the Delta works and the sea level rise - Prof. d'An- gremont, Delft university.
		10.30	Excursion to the Delta works and estuaries south of Delft, including lecture and boat trip. Accomodation at Natuurvriedenshuis August Reitsmahuis.
Sat	12/5	09.00	Short excursion through the horticultural area near Delft. Bus tour through the bulb growing district.
		12.00	Arrival in Amsterdam. Accomodation at Lancaster Hotel. Afternoon free.
Sun	13/5	09.00	Guided bus tour with emphasis on nature conservation and ecol- ogy in the Netherlands - Dr Henk Beye. Accomodation at Lancaster Hotel.

Mon	14/5	09.00	Visit to Polder area and exhibition. Guided tour around Flevo-land - Peter van Oijen.
		14.00	Visit to Free University of Amsterdam, hydrogeological department. Welcome and Introduction - Prof Dr Jan Simmers.
		14.10	Groundwater contamination problems (open) (Dr C.A.J. Appelo).
		14.35	Hydrogeochemical experiments on behalf of the Dutch test facility for aquifer thermal energy storage - Drs J. Griffioen.
		15.00	Coffee break; Groundwater flow modelling demonstrations (Drs C.J. Hemker).
		15.40	Groundwater recharge research in Botswana (Prof Dr J.J. de Vries)
		16.05	Groundwater systems analysis in The Netherlands (Prof G.B. Engelen)
		16.30	Reception Accommodation at Lancaster Hotel.
Tues	15/5	09.00	Departure Amsterdam. Ferry Travemünde-Trelleborg
Wed	16/5	16	Arrival at Stockholm

Erik Dalfors
Thomas Gandricht

Thomas Alwing
Yveta Bärnsten
Elizabeth Carlsson
Lena Johansson
Marie Jonsson
Kristina Karlsson
Martin Lundberg
Amir Mohajerpour
Per-Olof Nilsson
Ylva Nilsson
Hans Rudhe
Elisabeth Schanning
Sofey Velasch
Anders Öhrman

Other participants

Berit Dalfors