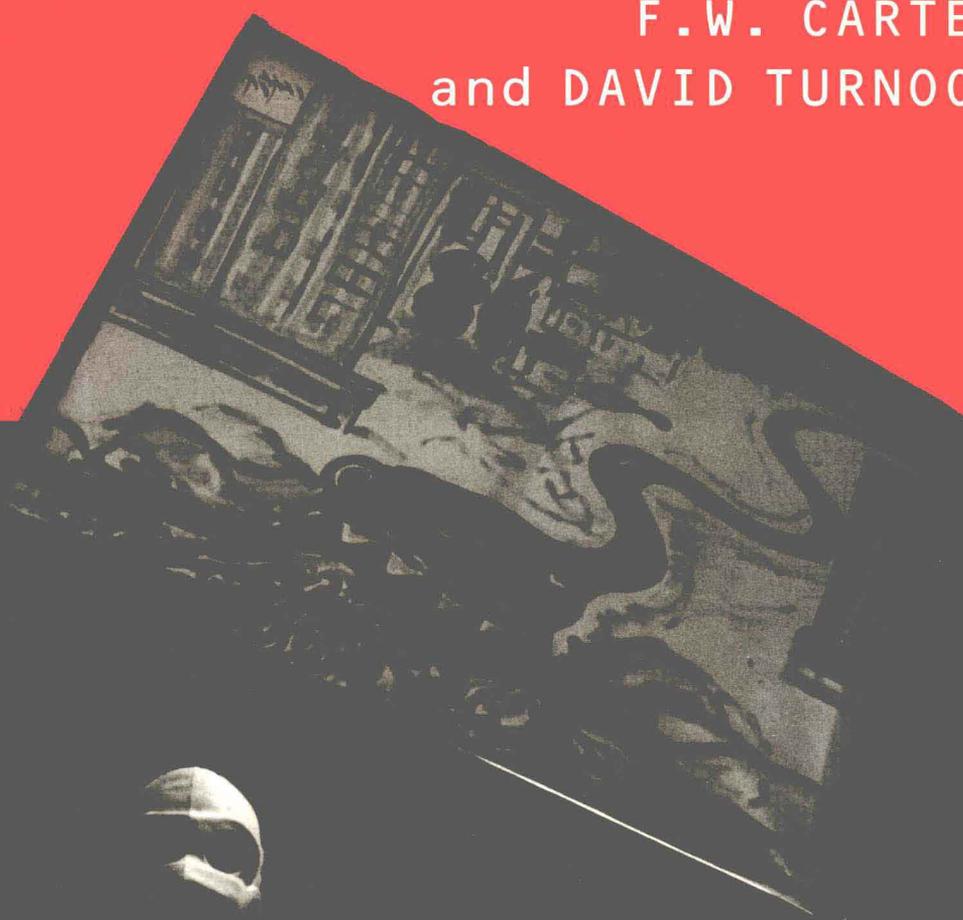


# environmental problems in eastern europe

F. W. CARTER  
and DAVID TURNOCK



UPDATED EDITION

ROUTLEDGE



ENVIRONMENTAL  
PROBLEMS IN EASTERN  
EUROPE

*Edited by F. W. Carter and D. Turnock*



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# ENVIRONMENTAL PROBLEMS IN EASTERN EUROPE

Environmental problems and transboundary pollution are now of international concern. Recent political changes in Eastern Europe have revealed how extensive has been the environmental damage of four decades of socialism. This legacy is one of the region's chief obstacles in the transition to a market economy.

*Environmental Problems in Eastern Europe* presents case studies of Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Romania and (former) Yugoslavia. Each chapter describes and analyzes the major causes and consequences of air, water, soil and vegetation pollution. The book focuses in particular on the effects on the peoples of Eastern Europe and on the environmental quality of life.

**F.W. Carter** is Head of Department of Social Sciences at the School of Slavonic and East European Studies, London University.

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## CONTRIBUTORS

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# PREFACE

This book was planned during the 1988 Anglo-Bulgarian Seminar which was held at the University of London's School of Slavonic and East European Studies. We felt that environmental problems in Eastern Europe were gaining increasing recognition both inside and outside the region. Therefore it seemed an opportune moment to undertake a review of the situation in each country and to offer a comprehensive view to complement the *ad hoc* surveys already available. We were pleased when Routledge took up the idea with their series on 'Environmental Studies' in mind, and wish to record our thanks to Tristan Palmer of Routledge and the series editor Chris Park (Lancaster University) for their support and encouragement. The book was planned at a time when few commentators anticipated the early demise of state socialism and so we are pleased to find that we can cater for the great increase in interest in East European problems in general since the revolutions of 1989. But we must stress that the research does not take detailed account of current trends, being primarily a 'base line' study of the environmental situation which is just one of a complex of issues complicating the transition to a market economy in each country of Eastern Europe.

We are grateful to our four contributors who have been free to present their assessments in their own way so as to take full advantage of their experience and expertise. The differences in structure and illustration reflect the lack of any rigid plan – an approach which we considered appropriate in view of the differences in source material between the various countries. We regret that there is no detailed coverage of the former German Democratic Republic: although the unification of Germany has in a sense detached this component from the old bloc of socialist countries it was our intention that coverage should be given and it is unfortunate that material could not be secured in time to meet the requirements of the publication schedule. We also regret that the Yugoslavia chapter was prepared before the process of disintegration in that country had escalated to the point of secession by several constituent republics, therefore we are unable to recognize the independence of Croatia and Slovenia through provision of chapters on these two countries aside from the discussions dealing with the former Yugoslav state as a whole. Similar sentiments must be issued with regard to Bosnia-Herzegovina

## PREFACE

and Macedonia whose quest for recognition by the world community was gaining momentum when these notes were written.

Francis W. Carter and David Turnock  
March 1992

## PREFACE TO THE 1996 EDITION

As editors, we are very pleased that the book has been sufficiently well received for a paperback edition to be justified. Unfortunately, the tight production schedule has made it impossible to revise the chapters which first appeared in the 1993 edition. We have been able to add two new chapters: one to review the general situation which has unfolded during the transition years and another to present a case study of environmental action, both indicating the range of approaches that are now being adopted. This compromise, however, is particularly unfortunate in that it again fails to recognize events in the Former Yugoslavia where the collapse of the old federation was evident even before the first edition appeared. Also it fails to acknowledge properly the 'Velvet Divorce' and breakup of Czechoslovakia which occurred in January 1993. All we can do is hope that continued interest in the book will be sufficient to allow a more comprehensive revision to be made in due course, so that the present political realities can be fully taken into account.

Francis W. Carter and David Turnock  
August 1996

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# INTRODUCTION

*F.W. Carter and D. Turnock*

This book was planned in 1988 at a time of increasing public awareness about the serious environmental problems of Eastern Europe. More recently, European environment ministers have urged governments of the former Eastern bloc countries to establish a critical timetable for new standards to bring local principles into line with those in the rest of Europe. As we progress towards a more unified continent, there is a need for a comprehensive overview of the growing environmental menace in Europe resulting from the requirement of air pollution control, water and waste-water treatment, reclamation of contaminated land and hazardous waste treatment and disposal. In east-central Europe much of this situation can be laid at the feet of four decades of central planning by Communist parties, which failed to adhere to declared priorities for sound environmental management; instead, there was serious ecological damage of the sort previously attributed only to Western capitalist regimes.

Admittedly, some pollution black spots already existed in this area prior to the Second World War but they were mainly confined to the limits of the Budapest–Łódź–Leipzig industrial triangle. The early years of post-war development saw the initiation of projects under socialism which were relatively harmless environmentally; however, there was a powerful urge to rapidly develop their economies and eliminate areas of material underdevelopment. There ensued a proliferation of large-scale programmes of mining and heavy manufacturing which increased the risks of environmental damage by alarming proportions. Adoption of the Stalinist model of economic development led to emphasis on heavy industry, including cement, chemicals and metallurgy, along with the drive to exploit all available energy resources through domestic thermal power-stations, which all helped to take their toll on the environment. Moreover, the Marxist concept of regarding natural resources as ‘free goods’ has only added to the problem by encouraging waste.

Over several decades naturalists have issued warnings about the impact of high-level environmental damage, while doctors have increasingly stressed the dangers of polluted air and water on the health of the population. Economists similarly appreciate the heavy costs afflicted by pollution in agriculture, forestry and tourism, whilst sociologists are conscious of the spin-off on the quality of life

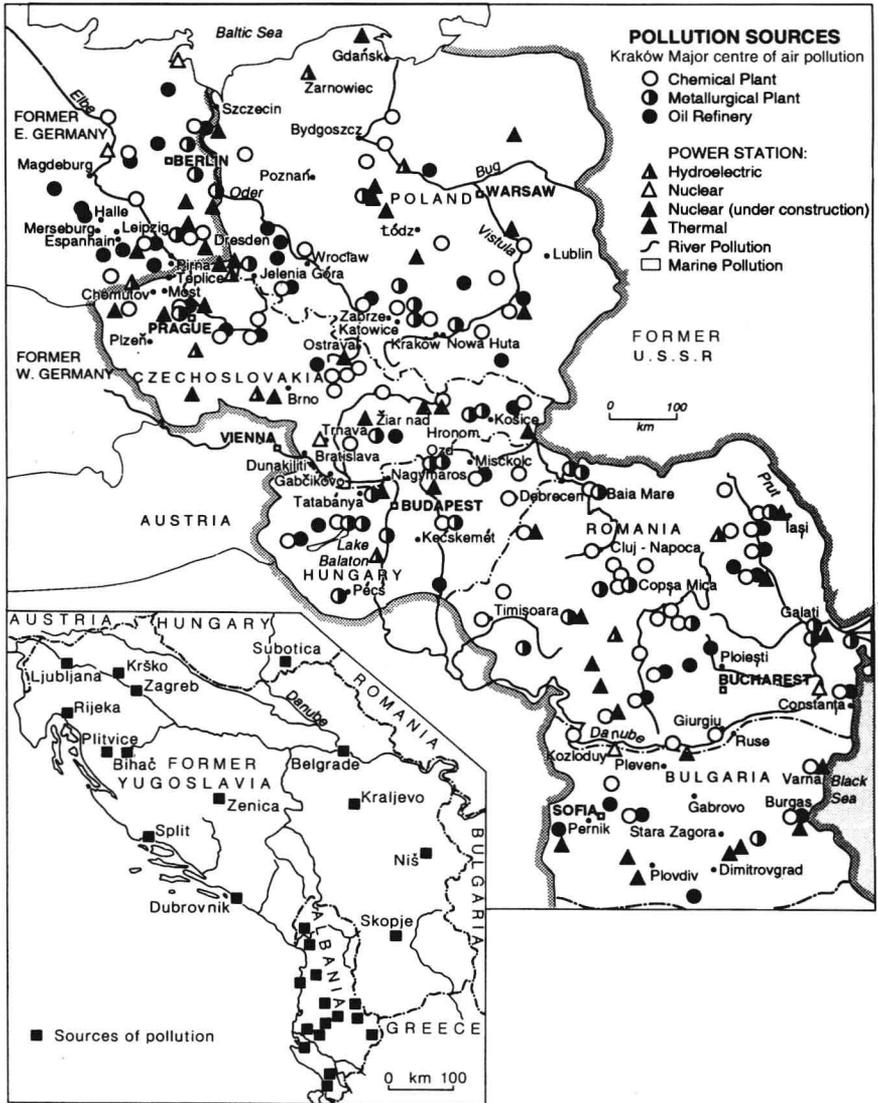


Figure 1.1 Eastern Europe: major pollution centres

Source: Based on J. Thompson (1991) 'East Europe's dark dawn', *National Geographic* 179 (6), p. 44.

## INTRODUCTION

created by a blighted environment. Unfortunately, these socialist governments saw the financial expenditure on reducing pollution levels as unacceptably too high and replaced them with less effective palliative measures. In fact, these governments tended to protect themselves from the realities of environmental degradation by giving a low priority to pollution research and monitoring. This has resulted in a lack of reliable data which is so necessary for the preparation of a realistic strategy – now so urgent in these countries – and has led to a confusion about contemporary strategies and aims, and lack of accord both at domestic and international policy levels, to effectively deal with the regional degradation of the environment. In fact, in the past, publication of pollution material was deliberately deterred, whilst factory employees were dissuaded from commenting on the weaknesses of certain industrial processes.

The combination of large natural deposits of sulphurous brown coal/lignite, a wasteful and unyielding ideological and economic system, and the adherence to an outmoded and inadequate heavy industrial infrastructure, all contributed to an easily identifiable problem of environmental degradation sometimes reaching severe proportions. Fortunately, during the 1970s and 1980s there was increasing awareness placed on pollution control, although the accompanying legislative support was often found wanting; nevertheless, this experience has been useful in demonstrating what was needed in the immediate future if problems were to be solved. It is now realized that more research is needed if pollution forecasts are to improve. It is absolutely imperative that government legislation lays down clear standards which can be applied over a wide range of conditions, and these laws must be implemented by state courts.

There are indications that these lessons have already been learnt, because even before the revolutionary upheavals of 1989 new legislation was being introduced in many east-central European countries. Even so, there are still fears that Western companies may try to take advantage of the more relaxed legislation in east-central Europe, encouraging the deliberate selling and use of technologies which are at present prohibited in the exporting country. There is obviously a need for legislation to protect these former Communist countries from unclean Western industries migrating eastward. However, without the liberalization of trade it would be difficult for countries to exert pressure on the monopoly companies which in the past were mainly responsible for high pollution emission rates, particularly in the so-called 'black triangle' covering Czechoslovakia, Poland, and the former East Germany.

The scale of transboundary pollution has also come under closer scrutiny. East-central Europe has not only signed trade agreements with Western companies to dispose of waste material, it has also been obliged to import air and water pollutants from Western Europe as well as those generated by immediate neighbours, as was seen in the case of Poland with transboundary deposits from the eastern parts of the former East Germany adding to its own pollution problems. It is hoped that the European Commission's important changes in attitude to environmental research through the Environment Research

Programme initiated in June 1991 by the Council of Ministers, will open all parts of the programme to the countries of east-central Europe, whose environmental problems are of concern to the whole continent. By means of a clause in the council's decision, these countries may be included in specific projects, as appropriate, without the need for separate agreements. Special arrangements will also be made to finance them.

Environmental damage can be seen in all parts of east-central Europe, but commentators are agreed that there are quite massive variations in the levels of air, water and soil/vegetation pollution which constitute the heart of the problem. It should therefore be a straightforward task for the geographer to highlight the uneven distribution. However, it is extremely difficult to produce a set of maps showing the extent of the variations according to a range of criteria. As this book will show, much published research deals with local problems and a simple collation of this material cannot provide a satisfactory overall view. Official statistical yearbooks vary a great deal in the attention given to pollution and while some countries like Hungary and Poland are relatively forthcoming, other states such as Albania and Romania have virtually nothing to say on the subject.

However, the emission of atmospheric pollutants correlates closely with thermal power stations and units of heavy industry, where sulphur dioxide is a key criterion, although all large cities are significant contributors, along with nitrogenous oxides, because of the prominence of motor traffic and domestic heating systems. Atmospheric pollution largely arises from the types of energy resources which have been available and the ways they have been utilized. For example, in the former East Germany and in Czechoslovakia, these states have been bequeathed by nature with an abundant supply of brown coal/lignite. As a result of the Communist states' propulsion towards self-sufficiency, together with the relative dearth of alternative resources of energy, one should not be amazed at the obvious heavy exploitation they have received, particularly as the basis for all kinds of industrial development.

Typical of such a situation is the former state of East Germany. Whilst the unification of Germany has made a special chapter on this country less appropriate, its impact should not be ignored. The centre of the problem in that country lay with the use of lignite, a soft, brown, low-quality coal found and used there in abundance. It provided over two-thirds of the state's domestic energy needs and was used largely as a raw material for the chemical industry and as a fuel in thermal electric power-stations. By 1978, hard coal reserves were virtually worked out, resulting in greater use of the only other fuel in profusion, namely lignite, with its large burn-off rate, mostly in the form of acrid fly ash and noxious sulphur dioxide.

The inevitable result was an ever-present cloud of dust and soot which enveloped the country (see Figure 1.1). For example, Leipzig was covered in 400,000 tonnes of SO<sub>2</sub> annually, life expectancy was six years less than the national average, and four-fifths of the children aged below 7 years developed