

Claiming citizenship: rights, participation and accountability

series editor: john gaventa

Around the world, a growing crisis of legitimacy characterizes the relationship between citizens and the institutions that affect their lives. In both North and South, citizens speak of mounting disillusionment with government, based on concerns about corruption, lack of responsiveness to the needs of the poor and the absence of a sense of connection with elected representatives and bureaucrats. Conventional forms of expertise and representation are being questioned. The rights and responsibilities of corporations and other global actors are being challenged, as global inequalities persist and deepen.

In response, this series argues, increased attention must be paid to re-examining contemporary understandings of rights and citizenship in different contexts, and their implications for related issues of participation and accountability. Challenging liberal understandings in which citizenship is understood as a set of rights and responsibilities bestowed by the state, the series looks at how citizenship is claimed and rights are realized through the agency and actions of people themselves.

Growing out of the work of an international network of researchers and practitioners from both South and North, the volumes in this series explore a variety of themes, including locally rooted struggles for more inclusive forms of citizenship, the links between citizenship, science and globalization, the politics and dynamics of participation in new democratic arenas, and the relationships between claiming rights and ensuring accountability. Drawing from concrete case studies which focus on how people understand their citizenship and claim their rights, the volumes contribute new, empirically grounded perspectives to current debates related to deepening democracy, realizing rights-based development, and making institutions more responsive to the needs and voices of poor people.

Series titles

Volume 1: Inclusive Citizenship: Meanings and Expressions, edited by Naila Kabeer

Volume 2: Science and Citizens: Globalization and the Challenge of Engagement, edited by Melissa Leach, Ian Scoones and Brian Wynne

Volume 3: Spaces for Change? The Politics of Citizen Participation in New Democratic Arenas, edited by Andrea Cornwall and Vera Schatten Coelho

Volume 4: Rights and Resources: The Politics of Accountability, edited by Peter Newell and Joanna Wheeler

Volume 5: Claiming Citizenship: Rethinking Democratic Participation, by John Gaventa

melissa leach, ian scoones and
brian wynne | editors

Science and citizens

Globalization and the challenge of
engagement



Zed Books
london | new york

Science and citizens: globalization and the challenge of engagement was first published by Zed Books Ltd, 7 Cynthia Street, London n1 9jf, uk and Room 400, 175 Fifth Avenue, New York, ny 10010, usa in 2005.

www.zedbooks.co.uk

Editorial copyright © Melissa Leach, Ian Scoones and Brian Wynne, 2005

Individual chapters © individual contributors, 2005

The rights of the editor and contributors to be identified as the authors of this work have been asserted by them in accordance with the Copyright, Designs and Patents Act, 1988.

Cover designed by Andrew Corbett

Set in ff Arnhem and Futura Bold by Ewan Smith, London

Index: ed.emery@britishlibrary.net

Printed and bound in the EU by Biddles Ltd <www.biddles.co.uk>

Distributed in the usa exclusively by Palgrave Macmillan, a division of St Martin's Press, llc, 175 Fifth Avenue, New York, ny 10010.

A catalogue record for this book is available from the British Library.
us cip data are available from the Library of Congress.

All rights reserved

isbn 1 84277 550 2 cased

isbn 1 84277 551 0 limp

Contents

Foreword by John Gaventa | vii

one | Science and citizenship

- | | | |
|---|--|----|
| 1 | Introduction: science, citizenship and globalization
melissa leach, ian scoones and brian wynne | 3 |
| 2 | Science and citizenship in a global context
melissa leach and ian scoones | 15 |

two | Beyond risk: defining the terrain

- | | | |
|---|---|----|
| | Commentary
melissa leach, ian scoones and brian wynne | 41 |
| 3 | The post-normal science of safety
jerry ravetz | 43 |
| 4 | Are scientists irrational? Risk assessment in practical reason
frank fischer | 54 |
| 5 | Risk as globalizing 'democratic' discourse? Framing subjects
and citizens
brian wynne | 66 |
| 6 | Knowledge, justice and democracy
shiv visvanathan | 83 |

three | Citizens engaging with science

- | | | |
|---|--|-----|
| | Commentary
melissa leach, ian scoones and brian wynne | 97 |
| 7 | Myriad stories: constructing expertise and citizenship in
discussions of the new genetics
richard tutton, anne kerr and sarah
cunningham-burley | 101 |
| 8 | AIDS, science and citizenship after apartheid
steven robins | 113 |
| 9 | Demystifying occupational and environmental health:
experiences from India
murlidhar v. | 130 |

10	Absentee expertise: science advice for biotechnology regulation in developing countries kees jansen and esther roquas	142
11	Interrogating China's biotechnology revolution: contesting dominant science policy cultures in the risk society james keeley	155
12	Environmental perception and political mobilization in Rio de Janeiro and São Paulo: a comparative analysis angela alonso and valeriano costa	167
13	'Let them eat cake': GM foods and the democratic imagination sheila jasanoff	183
14	Plant biotechnology and the rights of the poor: a technographic approach paul richards	199
	four Participation and the politics of engagement	
	Commentary melissa leach, ian scoones and brian wynne	215
15	Opening up or closing down? Analysis, participation and power in the social appraisal of technology andy stirling	218
16	Geographic information systems for participation john forrester and steve cinderby	232
17	Democratizing science in the UK: the case of radioactive waste management jason chilvers	237
18	Genetic engineering in Aotearoa, New Zealand: a case of opening up or closing down debate? audley genus and tee rogers-hayden	244
19	Exploring food and farming futures in Zimbabwe: a citizens' jury and scenario workshop experiment elijah rusike	249
	List of contributors 256	
	Bibliography 262	
	Index 287	

Foreword by John Gaventa

This volume explores a variety of themes related to how citizens engage in critical scientific debates and decisions that affect their futures, be they in specific policy issues about genetics, HIV/AIDS, occupational health, biotechnology or GM foods to broader processes of assessing the risks of new technologies.

Throughout, the volume contributes again and again to core themes of the Claiming citizenship series: how citizens both engage with and are constructed by policy processes; how rights are realized and how demands for new rights – such as, in this case, the right to safety or access to cognitive justice – emerge; whose realities and knowledges are used in the construction of standards of acceptable risk; the links between local and global processes and how they affect citizen mobilization; and how institutions respond to the multiple voices of the citizens they are meant to serve. In doing so, the volume poses critical challenges to how citizen participation is often conceptualized in policy discourse, which usually involves at best relatively passive contributions of lay knowledge and preferences to pre-defined and bounded technical processes. Instead, it offers a far more robust vision – one that involves understanding citizens as bearers of knowledge and agency, deeply linked to their own identities, cultures and even ontologies, and intertwined with global networks and solidarities.

The editors and authors of the volume address these issues through a richly textured combination of analysis and empirical case studies drawn from both North and South, including Brazil, China, India, New Zealand, Sierra Leone, South Africa, the United States, the United Kingdom and Zimbabwe. In so doing they link a wide spectrum of intellectual debates about science, citizenship, globalization, indigenous knowledge, policy, participation, risk and reflexivity. They do so in a way that itself is illustrative of one of the dimensions of citizen engagement they discuss, i.e. through mobilizing global networks that help to develop new forms of knowledge, vision and imagination.

Some of the researchers involved and two of the editors, Melissa Leach and Ian Scoones, are affiliated to the Development Research Centre (DRC) on Citizenship, Participation and Accountability, an international research network based at the Institute of Development Studies which brings together researchers and practitioners from Bangladesh, Brazil, India, Mexico, Nigeria and South Africa. The Citizenship DRC is funded by the UK

Department for International Development (DfID), with additional funding from the Rockefeller Foundation, which enabled the participation of some of the Northern contributors to this project.¹

In October 2001 and again in December 2002, members of the DRC network joined with other academics (spanning the fields of anthropology, sociology, ecology, science studies and geography), science advisers, professionals and activists for two conferences involving almost one hundred participants to explore the themes now reflected in this volume. The DRC network also linked with other networks, including that formed around the Science in Society Programme of the UK Economic and Social Research Council (ESRC), in which the third editor, Brian Wynne, has been involved. The Science and Society Programme also co-funded the second conference at IDS.

This volume in turn is part of a larger series on Claiming citizenship emerging from the work of the Development Research Centre. Other volumes will explore related issues of struggles for more inclusive forms of citizenship, the politics and dynamics of institutionalized participation in new democratic arenas, and the relationships between claiming rights and ensuring accountability. Drawing from concrete case studies that focus on how people understand their citizenship and claim their rights, the volumes contribute new, empirically grounded perspectives on current debates related to deepening democracy, realizing rights-based development, and making institutions more responsive to the needs and voices of poor people.

As overall series editor and as director of the DRC, I would like to thank the editors and authors of this volume for contributing their work to the Claiming citizenship series. The energy, quality and professionalism reflected in this work are far greater than can be credited to the DRC itself. Rather, they reflect the commitment to the issues involved and the collaboration of many people from a number of organizations and networks around the world. In addition, special thanks should be given to those who have helped in the production of the manuscript, including Kathryn Perry, Oliver Burch, Lucila Lahitou and, of course, our colleagues and editors at Zed Books, whose support for this series is deeply appreciated.

John Gaventa, Series Editor
Institute of Development Studies

Note

1 Further information on the Development Research Centre on Citizenship, Participation and Accountability may be found at <www.drc-citizenship.org>.