

*Studies in Development Economics and Policy*

General Editor: **Anthony Shorrocks**

UNU WORLD INSTITUTE FOR DEVELOPMENT ECONOMICS RESEARCH (UNU-WIDER) was established by the United Nations University as its first research and training centre and started work in Helsinki, Finland, in 1985. The purpose of the Institute is to undertake applied research and policy analysis on structural changes affecting the developing and transitional economies; to provide a forum for the advocacy of policies leading to robust, equitable and environmentally sustainable growth; and to promote capacity strengthening and training in the field of economic and social policy-making. Its work is carried out by staff researchers and visiting scholars in Helsinki and through networks of collaborating scholars and institutions around the world.

*UNU World Institute for Development Economics Research (UNU-WIDER)  
Katajanokanlaituri 6B, FIN-00160 Helsinki, Finland*

*Titles include:*

Tony Addison and Alan Roe (*editors*)  
FISCAL POLICY FOR DEVELOPMENT  
Poverty, Reconstruction and Growth

Tony Addison, Henrik Hansen and Finn Tarp (*editors*)  
DEBT RELIEF FOR POOR COUNTRIES

George J. Borjas and Jeff Crisp (*editors*)  
POVERTY, INTERNATIONAL MIGRATION AND ASYLUM

Ricardo Ffrench-Davis and Stephany Griffith-Jones (*editors*)  
FROM CAPITAL SURGES TO DROUGHT  
Seeking Stability for Emerging Economies

David Fielding (*editor*)  
MACROECONOMIC POLICY IN THE FRANC ZONE

Basudeb Guha-Khasnobis (*editor*)  
THE WTO, DEVELOPING COUNTRIES AND THE DOHA DEVELOPMENT AGENDA  
Prospects and Challenges for Trade-led Growth

Basudeb Guha-Khasnobis and Ravi Kanbur (*editors*)  
INFORMAL LABOUR MARKETS AND DEVELOPMENT

Aiguo Lu and Manuel F. Montes (*editors*)  
POVERTY, INCOME DISTRIBUTION AND WELL-BEING IN ASIA DURING  
THE TRANSITION

Mark McGillivray (*editor*)  
HUMAN WELL-BEING  
Concept and Measurement

Mark McGillivray (*editor*)  
INEQUALITY, POVERTY AND WELL-BEING

Robert J. McIntyre and Bruno Dallago (*editors*)  
SMALL AND MEDIUM ENTERPRISES IN TRANSITIONAL ECONOMIES

Vladimir Mikhalev (*editor*)  
INEQUALITY AND SOCIAL STRUCTURE DURING THE TRANSITION

E. Wayne Nafziger and Raimo Väyrynen (*editors*)  
THE PREVENTION OF HUMANITARIAN EMERGENCIES

Machiko Nissanke and Erik Thorbecke (*editors*)  
THE IMPACT OF GLOBALIZATION ON THE WORLD'S POOR  
Transmission Mechanisms

Matthew Odedokun (*editor*)  
EXTERNAL FINANCE FOR PRIVATE SECTOR DEVELOPMENT  
Appraisals and Issues

Laixiang Sun (*editor*)  
OWNERSHIP AND GOVERNANCE OF ENTERPRISES  
Recent Innovative Developments

UNU-WIDER (*editors*)  
WIDER PERSPECTIVES ON GLOBAL DEVELOPMENT

---

**Studies in Development Economics and Policy**  
**Series Standing Order ISBN 978-0-333-96424-8**  
(*outside North America only*)

You can receive future titles in this series as they are published by placing a standing order. Please contact your bookseller or, in case of difficulty, write to us at the address below with your name and address, the title of the series and the ISBN quoted above.

Customer Services Department, Macmillan Distribution Ltd, Houndmills, Basingstoke, Hampshire RG21 6XS, England

---

# Human Well-being

## Concept and Measurement

Edited by

Mark McGillivray

palgrave  
macmillan

in association with  
Palgrave Macmillan



© United Nations University 2007

Softcover reprint of the hardcover 1st edition 2007 978-0-230-00498-6

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No paragraph of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, 90 Tottenham Court Road, London W1T 4LP.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

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

First published 2007 by  
PALGRAVE MACMILLAN

Houndmills, Basingstoke, Hampshire RG21 6XS and  
175 Fifth Avenue, New York, N.Y. 10010

Companies and representatives throughout the world

PALGRAVE MACMILLAN is the global academic imprint of the Palgrave Macmillan division of St. Martin's Press, LLC and of Palgrave Macmillan Ltd. Macmillan® is a registered trademark in the United States, United Kingdom and other countries. Palgrave is a registered trademark in the European Union and other countries.

ISBN 978-1-349-28183-1

ISBN 978-0-230-62560-0 (eBook)

DOI 10.1057/9780230625600

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources.

A catalogue record for this book is available from the British Library.

Library of Congress Cataloging-in-Publication Data

Human well-being: concept and measurement/edited by Mark McGillivray.

p. cm. — (Studies in development economics and policy)

Includes bibliographical references and index.

Contents: Human well-being: issues, concepts, and measures/Mark

McGillivray — Human well-being: concepts and conceptualizations/

Des Gasper — Income-based measures of average well-being/Steve Dowrick —

Social and political indicators of human well-being/Susan Harkness —

Composite indices of human well-being/Mark McGillivray and Farhad

Noorbakhsh — Indicators of inequality and poverty/S. Subramanian —

Gender-related indicators of well-being/Stephan Klasen — Sustainability and

well-being indicators/Eric Neumayer — Subjective measures of well-being/Ruut

Veenhoven — Participatory approaches and the measurement of human

well-being/Sarah White and Jethro Pettit.

1. Social indicators. 2. Well-being. I. McGillivray, Mark.

II. World Institute for Development Economics Research.

HN25.H86 2007

301.072'3—dc22

2006047642

10 9 8 7 6 5 4 3 2 1  
16 15 14 13 12 11 10 09 08 07

# Contents

<i>List of Figures</i>	vi
<i>List of Tables</i>	vii
<i>Foreword</i>	viii
<i>Acknowledgements</i>	ix
<i>Notes on the Contributors</i>	x
<i>List of Abbreviations</i>	xii
1 Human Well-being: Issues, Concepts and Measures <i>Mark McGillivray</i>	1
2 Human Well-being: Concepts and Conceptualizations <i>Des Gasper</i>	23
3 Income-based Measures of Average Well-being <i>Steve Dowrick</i>	65
4 Social and Political Indicators of Human Well-being <i>Susan Harkness</i>	88
5 Composite Indexes of Human Well-being: Past, Present and Future <i>Mark McGillivray and Farhad Noorbakhsh</i>	113
6 Indicators of Inequality and Poverty <i>S. Subramanian</i>	135
7 Gender-related Indicators of Well-being <i>Stephan Klasen</i>	167
8 Sustainability and Well-being Indicators <i>Eric Neumayer</i>	193
9 Subjective Measures of Well-being <i>Ruut Veenhoven</i>	214
10 Participatory Approaches and the Measurement of Human Well-being <i>Sarah White and Jethro Pettit</i>	240
<i>Index</i>	269

# List of Figures

2.1	Refined terms for subjective/objective	33
2.2	Sen's categories for ranking a person's situation	53
3.1	Scatter plot of GDP per hour versus GDP per person	69
3.2	Real GDP per person and life expectancy across 171 countries, 1994–98	71
3.3	Life expectancy and GDP: countries with income under \$6000	73
3.4	Life expectancy and GDP: countries with income over \$6000	74
3.5	Revealed preference, Paasche and Laspeyre indexes	77
3.6	Substitution bias in the GK index	79
3.7	Quantifying the bias in FX and GK indexes	83
3.8	Indexes of GDP per capita	84
3.9	Deviations from Ideal Afriat index	84
6.1	The Lorenz curve	137
9.1	Objective–subjective difference: basic configurations	215
9.2	Objective–subjective differences; elaborate configurations	216
9.3	Four kinds of being 'well'	217
9.4	Meanings measured by the Human Development Index	226
9.5	Meanings measured by Allardt's <i>Dimensions of Welfare</i> (1976): having (h), loving (l) and being (b)	227
9.6	Meanings measured by the WHO's QOL scale	228

# List of Tables

2.1	Alternative levels of focus in studies of well-being	40
2.2	Comparative overview of the focus and assumptions of selected writers on human development and well-being	42
2.3	Towards a replacement vocabulary	54
3.1	Recorded hours of work and GDP in the OECD, 1990	68
3.2	Life expectancy and GDP, descriptive statistics for 171 countries	72
3.3	Regression analysis of life expectancy on real GDP per capita	72
3.4	Standard deviation of log ratio to Afriat Ideal index	85
4.1	The Millennium Development Goals, targets and indicators	93
4.2	Data coverage for core development indicators (1990–95)	95
5.1	Mean and standard deviation of rescaled variables	119
5.2	Pearson correlation coefficients between HDI 2002 and its components	124
5.3	Human Development Index with alternative weights	126
6.1	Some descriptive inequality measures and their properties	143
7.1	Missing women, latest estimates	169
7.2	Enrolment and achievement in education by gender	170
7.3	HDI, GDI, and GEM for selected countries in 2003	183
8.1	HDI with Genuine Savings qualification	203
10.1	Principal methods used in PPAs and the <i>Voices of the Poor</i> study	245
10.2	Characteristics of different wealth groups identified in Sofaya, South Africa	247
10.3	Characteristics of qualitative and quantitative poverty appraisal	255
10.4	Indicators used in participatory poverty index, China	256

# Foreword

Social science research on human well-being has progressed a great deal in recent years, altering in response to changing global conditions, new research priorities and improved data resources. Two decades ago, for example, a comparison of well-being across countries was typically based on per capita incomes converted into US dollars at market exchange rates. Nowadays, a similar exercise would almost certainly take account of variations in purchasing power parity between countries and would be likely to embrace non-income and non-economic dimensions of well-being, given the increased recognition of the multidimensional nature of well-being. It might also encompass the distribution of well-being among and within countries, the extent to which current levels of achievement can be sustained over time, or even be founded on subjective or self-assessed measures of well-being.

This book emanates from a UNU-WIDER project on 'Measuring Human Well-being' (Social Development Indicators). It aims to provide a comprehensive and rigorous review of the concept and measurement of human well-being, with the main focus on well-being achievement at the level of nations. The topics covered include influential conceptualizations of well-being (such as Amartya Sen's capabilities approach), the construction of composite indices (such as the Human Development Index), social and political dimensions of well-being, the application of participatory methods, taking account of sustainability and gender-related issues, and subjective measures of well-being, including happiness scores.

While accepting that many aspects of well-being cannot be measured, the book offers many useful suggestions for future research on the construction and application of well-being indices. These include paying greater attention to human security issues; efforts to synthesise alternative conceptualizations of well-being – for example, by combining subjective and objective measures; and assigning degrees of confidence in comparisons of inter-country well-being, especially in the context of the measures used to track progress towards the Millennium Development Goals.

This book provides a timely and welcome addition to the literature on well-being. It will appeal in particular to those who have ever wondered about the ultimate goal of human development, and whether the elusive concept of human well-being can ever be captured satisfactorily in a measure that can be used to monitor and assess progress.

ANTHONY SHORROCKS  
*Director, UNU-WIDER*



# Acknowledgements

This volume originates from the UNU-WIDER research project entitled 'Measuring Human Well-being' (Social Development Indicators). The Board of UNU-WIDER provided valuable suggestions during the early stages of the project. Tony Shorrocks, director of UNU-WIDER, provided considerable encouragement, advice and support throughout the life of the project. Tony Addison, deputy-director of UNU-WIDER, provided very useful advice, especially at the early stages of the project. Valuable comments from anonymous referees on a previous draft of the volume were extremely useful in shaping the final product. The following people also provided very useful comments on one or more of the chapters appearing in this volume: Mina Baliaoune-Lutz, Matthew Clarke, James Foster, Ian Gough, Ajeet Mathur, Lars Osberg, Ram Pillariseti, Mozaffar Qizilbash and Mariano Rojas.

The Measuring Human Well-being project was supported by many UNU-WIDER staff. Special thanks are due to Anne Ruohonen and Adam Swallow. Anne served as the project secretary, providing extremely efficient support and consistently good humour. The book could not have ever come to completion without Anne's inputs. Adam provided incisive and timely publications advice, handling often complex matters with sound judgement and skill. Thanks are also due to Barbara Fagerman, Lea Hallbäck, Maria Kauppinen, Ara Kazandjian, Bruck Tadesse and Ans Vehmaanperä.

Special thanks are also due to Amanda Hamilton at Palgrave Macmillan for providing such effective publication and dissemination of outputs from the UNU-WIDER Measuring Human Well-being project.

UNU-WIDER gratefully acknowledges the financial contributions to the research programme by the governments of Denmark (Royal Ministry of Foreign Affairs), Finland (Ministry for Foreign Affairs), Norway (Royal Ministry of Foreign Affairs), Sweden (Swedish International Development Cooperation Agency – SIDA) and the United Kingdom (Department for International Development – DFID).

# Notes on the Contributors

**Steve Dowrick** is Professor of Economics at the Australian National University in Canberra, Australia. His research interests are sources of economic growth, global income inequality and international income comparisons.

**Des Gasper** studied economics at the universities of Cambridge and East Anglia, and now teaches at the Institute of Social Studies, The Hague. He works currently on theories of well-being and human development, and is Visiting Professor in the Department of Economics and International Development at the University of Bath, UK, affiliated to the ESRC Research Group on Well-being in Developing Countries.

**Susan Harkness** is a lecturer in economics at the University of Bristol, a research associate at the Centre for Market and Public Organisation at Bristol and a research associate at the Centre for Analysis of Social Policy at the University of Bath. She is an applied labour economist with research interests on the economics of the family, poverty and inequality, and female employment and earnings.

**Stephan Klasen** is Professor of Economics at the University of Göttingen, Germany. He holds a PhD from Harvard University and has held positions at the World Bank, the University of Cambridge, and the University of Munich. His research focuses, among other things, on causes, measurement and consequences of gender inequality in developing countries.

**Mark McGillivray** is Senior Research Fellow at the World Institute for Development Economics Research of the United Nations University in Helsinki, Finland and an Inaugural Fellow of the Human Development and Capabilities Association. His research interests include the allocation and impact of development aid, and human well-being achievement.

**Eric Neumayer** is a Reader in Environment and Development in the Department of Geography and Environment at the London School of Economics and Political Science (LSE). He is the holder of a Philip Leverhulme Prize in Geography and has broad research interests in sustainable development, environmental commitment and performance, economic and human development, conflict and violence, globalization and migration.

**Farhad Noorbakhsh** is Professor of Development Economics and Head of the Department of Economics at the University of Glasgow, UK. His research

interests include welfare and human development, economic planning, project planning, macroeconomic adjustments and regional disparities.

**Jethro Pettit** is a member of the Participation Group at the Institute of Development Studies, University of Sussex, UK where he works on participatory methodologies, power and social change. He is interested in the design of learning for reflective practice, and how development practitioners can contribute to shifting power relations and realising human dignity.

**S. Subramanian** is a Professor at the Madras Institute of Development Studies in Chennai, India. He has research interests in the fields of social and economic measurement, development economics and collective choice theory.

**Ruut Veenhoven** is Professor of Social Conditions for Human Happiness at Erasmus University of Rotterdam in The Netherlands. He is also Director of the World Database of Happiness and editor of the *Journal of Happiness Studies*. His current research interest is subjective quality of life.

**Sarah White** is a lecturer in Sociology and International Development and Director of the Centre for Development Studies, University of Bath, UK. She is a member of the ESRC Research Group on Well-being in Developing Countries, based at the University of Bath, and of the Research Programme in Faiths and Development, based at the University of Birmingham. Her main interests lie in the constitution of social difference and the scope of the personal and cultural in development.

# List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CEC	Commission of the European Communities
CESifo	Center for Economic Studies and the Institute for Economic Research (Munich)
CFCs	Chlorofluorocarbons
CQLI	Combined Quality of Life Indexes
DALY	Disability Adjusted Life Years
DIAL	Développement et Insertion Internationale (Paris)
EAW	Economic Aspects of Welfare (Zolotas)
EBI	environmental behaviour indicator
ECA	Economic Commission of Africa
EEI	environment endangerment index
ESRC WeD	Economic and Social Research Council, Well-being in Developing Countries
Eurostat	Statistical Office of the European Communities
FX	foreign exchange
GDI	Gender related Development Index
GDP	gross domestic product
GEI	Gender Equity Index
GEM	Gender Empowerment Measure
GER	gross enrolment rate
GGI	Gender Gap Index
GID	General Index of Development
GK	Geary–Khamis
GLC	Generalized Lorenz Curve
GNI	gross national income
GNP	gross national product
GPI	Genuine Progress Indicator
GS	Genuine Savings
HALY	Happiness Adjusted Life Years
HDI	Human Development Index
<i>HDR</i>	<i>Human Development Report</i>
HLE	Happy Life Expectancy
HPI	Human Poverty Index
HSI	Human Suffering Index

HIV	Human Immunodeficiency Virus
IAHDI	Inequality Adjusted Human Development Index
ICP	International Comparison Project
IDS	Institute of Development Studies, University of Sussex
IIED	International Institute for Environment and Development
ILO	International Labour Organization
ISEW	Index of Sustainable Economic Welfare
LIS	Luxembourg Income Study
LLI	Level of Living Index
LSMS	Living Standards Measurement Surveys
MEW	Measure of Economic Welfare (Nordhaus and Tobin)
MDGs	Millennium Development Goals
NESA	New Entity for Social Action
NGO	Non-governmental organization
NSR	non-self-report
OECD	Organisation for Economic Co-operation and Development
OED	Oxford English Dictionary
OLS	ordinary least squares
OWB	objective well-being
PGI	person generated index
PPAs	participatory poverty assessments
PPP	purchasing power parity
PQLI	Physical Quality of Life Index
PAR	participatory action research
PRA	participatory rural appraisal
PRSPs	poverty reduction strategy papers
QOL	quality of life
RRA	rapid rural appraisal
SDI	Socioeconomic Development Index
SIGE	Standardized Index of Gender Equality
SFB	Sonderforschungsbereich 303 (University of Bonn)
SHDI	Sustainable Human Development Index
SOL	standard of living
SPA	Social Policy Association (UK)
SR	self-report
SSA	sub-Saharan Africa
SWB	subjective well-being
SWF	social welfare function
TISA	Total Incomes System of Accounts (Eisner)
TS	transfer sensitivity
UNDP	United Nations Development Programme
UNHS	Ugandan National Household Survey
UNRISD	United Nations Research Institute for Social Development

WB	well-being
WBA	well-being achievement
WBF	well-being freedom
WDR	<i>World Development Report</i>
WEF	World Economic Forum
WHD	World Happiness Database
WHO	World Health Organization
WHOQOL	World Health Organization's quality of life assessment
WIDER	World Institute for Development Economics Research (Helsinki)