Replacing GDP by 2030

How did Gross Domestic Product (GDP) become the world's most influential indicator? Why does it still remain the primary measure of societal progress despite being widely criticised for not considering well-being or sustainability? Why have the many Beyond-GDP alternatives not managed to effectively challenge GDP's dominance?

The success of GDP and failure of Beyond-GDP lies in their underlying communities. The macroeconomic community emerged in the aftermath of the Great Depression and the Second World War. This community formalised their "language" in the System of National Accounts (SNA) which provided the global terminology with which to communicate. On the other hand, Beyond-GDP is a heterogeneous community which speaks in many dialects, accents and languages.

Unless this changes, the "Beyond-GDP cottage industry" will never beat the "GDP multinational". This book proposes a new roadmap to 2030, detailing how to create a multidisciplinary Wellbeing and Sustainability Science (WSS) with a common language, the System of Global and National Accounts (SGNA).

RUTGER HOEKSTRA is the owner of MetricsForTheFuture.com which provides consultancy services to governments, international institutes and companies on Beyond-GDP and Beyond-Profit. He has worked on well-being and sustainability from an academic, governmental and business perspective. He has worked with the United Nations, OECD, World Bank, European Commission, European Central Bank and other international organisations. He was the co-chair of the UNECE/OECD/Eurostat Task Force which developed the *Conference of European Statisticians Recommendations on Measuring Sustainable Development*. He has lectured at various universities and authored numerous publications on sustainable development, globalisation, circular economy and big data applications. He was also Scientific Director of the KPMG True Value methodology at KPMG Sustainability.

Advance Praise for Replacing GDP by 2030

'There are many publications criticising, for the right or for the wrong reasons, GDP and national accounts. But hardly anyone comes up with a valid way out. Rutger Hoekstra not only puts forward a well-thought-out alternative, but also provides a strategy for replacing the hegemony of GDP. Will it work?'

> Peter van de Ven Head of National Accounts, OECD

'This is a powerful and timely contribution to the debate about how to move beyond GDP – and what to use instead – in seeking to understand the economy and bring about improvements in people's lives. There is no question that the conventional economic statistics have outlived their use; they obscure rather than enlighten. The importance of this book is in its thoughtful and detailed proposals for change.'

> Diane Coyle Bennett Professor of Public Policy, University of Cambridge Author of *GDP: A Brief but Affectionate History*

'The Beyond-GDP discussion has been raging on for decades, and progress has been slow. Drawing upon years of experience as a high-level international statistician, Rutger Hoekstra offers an original and highly informed view from the trenches on the why and how. His innovative and ambitious proposal for a way out deserves to be widely read and discussed.'

> Marcel Timmer Professor of Economic growth and development and Director of the Groningen Growth and Development Centre (GGDC), University of Groningen

'This book shows why a "Beyond-GDP world" is needed and how it can be built. A must-read contribution to the move towards a sustainable future.' Enrico Giovannini Professor of Economic Statistics at University of Rome Tor Vergata Former Italian Minister of Labor and Social Policies

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> 'In crisp prose, Rutger Hoekstra conveys an important message. We won't convince policy makers to look beyond GDP simply by multiplying the production of well-being indicators. Something more is clearly needed.' Marco Mira d'Ercole Head of Household Statistics, OECD

> 'This book by environmental economist Hoekstra not only offers a good read and an excellent introduction to the big debate about GDP and Beyond-GDP. It also provides a clear strategy to make Beyond-GDP much more effective and to learn from the success of GDP as an indicator and language.'

> > Frits Bos CPB Netherlands Bureau for Economics Policy Analysis Author of *The National Accounts as a Tool for Analysis and Policy*

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Replacing GDP by 2030

Towards a Common Language for the Well-being and Sustainability Community

RUTGER HOEKSTRA MetricsForTheFuture.com



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This book is dedicated to Tjeerd, Cas and Suzanne for \ldots everything

I also dedicate this book to Jan Pieter Smits who has been my cherished companion on this intellectual and personal journey

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Contents

	List of Figures	page xiv
	List of Tables	xv
	List of Boxes	xvi
	Preface	xvii
	Acknowledgements	xxiv
	PART I WHY A NEW STRATEGY IS NEEDED	1
1	Replacing the Most Influential Indicator in the World	3
	Four Times a Year	3
	The GDP Multinational	4
	The Beyond-GDP Cottage Industry	8
	The Schumpeterian Dream	10
	Three Crucial Questions	12
	Strategy: An Institutionalised Community with a Clear	
	Goal and Coherent Structure based on a Common	
	Language	17
	Reading Guide/Scope and Audience	23
2	Why Is GDP Successful?	27
	From Cottage Industry to Multinational	27
	Studenski's Paradox	29
	The Ascent (1929–1944)	31
	Golden Age (1944–1973)	36
	Contested Hegemony (1973–2008)	40
	Demise? (2008–2030)	44
	A Common Language: The System of National Accounts	48
	A Successful Community	52

ix

X CONTENTS

3	What Does GDP Measure (And What Not)?	54
	A Long History of Criticism	54
	It Is Difficult to Measure "the Economy"	55
	It Is Even More Difficult Because of ICT and Globalisation	64
	GDP Doesn't Measure Well-being	68
	GDP Doesn't Measure Inequality	69
	GDP Doesn't Account for the Environment/Future	70
	GDP Is Not a Good Proxy for Welfare	75
4	Why Is Beyond-GDP Not Successful?	79
	From a Cottage Industry to a Larger Cottage Industry	79
	Historical Overview of Influential Conferences, Initiatives	
	and Publications	83
	Typology of Beyond-GDP Methodologies	87
	Type 1: Conceptual Index (Subjective Well-being)	88
	Type 1: Conceptual Index (Green Accounting)	90
	Type 1: Conceptual Index (Ecological Footprint)	92
	Type 2: Non-Conceptual Index (Composite Indicators,	
	e.g. Human Development Index)	93
	Type 3: Non-Conceptual Indicator Sets (e.g. Sustainable	
	Development Goals)	94
	Type 4: Conceptual Indicator Sets (e.g. Stiglitz Report)	95
	System of Environmental and Economic Accounting (SEEA)	96
	The Need for a Community	99
	PART II THE NEW STRATEGY: A COMMUNITY	
	FOR WELL-BEING AND SUSTAINABILITY	103
5	Outline of the Strategy	105
	Revisiting the Schumpeterian Dream	105
	Alternative Strategies	107
	Should Politicians Be in the Lead?	110
	Should Economists Be in the Lead?	111

Cambridge University Press 978-1-108-49733-6 — Replacing GDP by 2030 Rutger Hoekstra Frontmatter <u>More Information</u>

CONTENTS XI

	Creating a Community for Well-being and Sustainability	
	Science (WSS)	114
	Start with a Common Language: System of Global and	
	National Accounts (SGNA)	118
	Building Blocks of the SGNA: Stocks/Flows, Networks	
	and Limits	121
	Reading Guide to Part B	125
6	Global Environmental Accounts (GENA)	126
	One in 8.7 Million	126
	Minor Adjustments to the SEEA (with Big Implications)	128
	Stocks/Flows: The Case of the Carbon Cycle	132
	Intermezzo: Globalisation and Carbon Responsibility	138
	Stocks/Flows: Species and Ecosystems	140
	Networks: Ecosystems	142
	Limits: Planetary Boundaries	144
	Final Thoughts	146
7	Global Societal Accounts (GSA)	148
	How Many Are We? Who Are We? How Are We Organised?	
	What Do We Do?	148
	Stocks/Flows: Demographic Accounts	149
	Stocks/Flows: Institutional Units	153
	Networks: The Structure of Society	156
	Flows/Limits: Time Use	159
	Intermezzo: Effects of ICT/Globalisation on the Structure	
	of Society and Time Use	161
	Final Thoughts	163
8	Global Economic Accounts (GECA)	165
	A Very Important Subsystem	165
	Stocks/Flows: Capital, Investment and Depreciation	167
	Flows/Networks: The Global Economy	172

xii contents

	Flows: Production, Technology and Innovation	175
	Flows: Consumption	179
	Networks: New Perspective on the Economy	185
	Limits: The Case for Non-Monetary Data	187
	Final Thoughts	189
9	Global Distribution Accounts (GDA)	191
	Where Did the SAM Go?	191
	The Distribution between Nations and Institutional Sectors	195
	The Distribution within Non-Household Sectors	202
	The Distribution between Households	203
	Environmental Impact of Inequality	206
	Final Thoughts	207
10	Global Quality Accounts (GQA) and Quality	
	Indicators	208
	Are Things Getting Better?	208
	Welfare Economics	210
	The Capital Approach	214
	The Capability Approach	218
	Life Evaluation	219
	Affect Evaluation	220
	Physiological Measurement	223
	Thermodynamic/Ecological Approaches	224
	Approaches Based on Networks and Limits/Benchmarks	225
	Towards a Multidisciplinary View of Well-being and	
	Sustainability	226
	Replacing GDP: System and Quality Indicators	233
11	Implementation of the Strategy	238
	Is This Strategy Necessary?	238
	(Nearly) All the Pieces of the Puzzle	243
	Structured Multidisciplinarity	246
	The Age of Data Abundance	248

Cambridge University Press 978-1-108-49733-6 — Replacing GDP by 2030 Rutger Hoekstra Frontmatter <u>More Information</u>

contents xiii

The Cost of the Strategy	252
The Challenge: Institutionalisation	253
Will It Happen?	256
Annex: Beyond-GDP Milestones and Measurement Systems	
Notes	274
References	307
Index	338

Figures

1.1	GDP multinational versus Beyond-GDP cottage	
	industry	page 10
1.2	The Schumpeterian dream	11
2.1	Number of countries with national income estimates	s 29
3.1	World GDP and population (1750–2008 AD)	76
4.1	Number of countries with experience in GDP, SWB,	
	SEEA and SDI	80
5.1	The innovation cycle of GDP and Beyond-GDP	106
5.2	The System of Global and National Accounts	
	(SGNA)	119
6.1	The IPCC simplified schematic of the global	
	carbon cycle	133
7.1	A network perspective on the structure of society	156
8.1	Sales and use of cars in the Netherlands	180
9.1	Share of top 1 per cent in total income	
	(US, 1913–2014) and timing of the SNA revisions	192
9.2	Multi-layered multidimensional view of global	
	distribution	193
10.1	The capital approach	214
11.1	The argumentation of this book	239

xiv

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Tables

1.1	Community features underlying macroeconomics	
	and well-being and sustainability science	page 18
4.1	Historical overview of Beyond-GDP initiatives	82
4.2	Beyond-GDP methodologies	88
4.3	Comparing the macroeconomic and environmental-	
	macroeconomic communities	99
6.1	Stock/flow accounts of the carbon cycle (1750-present)	134
6.2	Historical emissions of carbon (1751-2013)	136
6.3	Emissions of the UK in 2013	137
6.4	Production and consumption-based accounting	139
6.5	Ecosystems asset – extent	141
7.1	Demographic accounts – population	150
7.2	Demographic accounts – age	151
7.3	Demographic accounts – education	152
7.4	Time use of persons (mean hours per day – activity)	160
8.1	SNA assets accounts	168
8.2	Global input-output table in monetary units	173
8.3	Global physical input-output table in mass units	177
9.1	Sector accounts	197
9.2	Opening balance sheet, the Netherlands 2016	
	(million euros)	199
9.3	"From-whom-to-whom?" table	200
10.1	Well-being per activity	222
10.2	Excludability and rivalry: private, common, club	
	and public goods	230
10.3	The modular SGNA accounts and indicators	233
11.1	Structured multidisciplinarity	247
A1	Influential conferences/initiatives	260
A2	Influential Beyond-GDP publications	264
A3	Beyond-GDP indicators by type	266

xv

Boxes

1.1	Terminology: National Income, GNP, GDP and	
	Other SNA Aggregates	page 5
1.2	A selection of Beyond-GDP terminology	16
2.1	The change in attitude towards GDP in the	
	Kennedy family	43
3.1	Public attitudes in the growth debate	73
3.2	Have a look at these crazy accounting rules!	74
8.1	The COICOP classification of consumption	181
8.2	Effects of ICT/globalisation on the consumption	183
11.1	New ways of measuring time use	251
11.2	New ways of measuring networks	251

xvi

Preface

This book was born out of frustration. Since 2007 I have worked in the area of measuring well-being and sustainability, initially with great enthusiasm. It felt like an important task to provide information which went beyond our current dominant economic indicators. Around that time there was a reinvigorated debate about creating a better "compass" for society to navigate towards a future based on human well-being and sustainability. I started to work on the issue with great zeal and sense of purpose. Yet a couple of years later I became disheartened and later still my disenchantment grew to the point that I wanted to write down my thoughts in a book. This personal evolution is rather important to understand the motivation of the book, so I will briefly expand on it.

My interest in this topic started in the 1990s when I was studying for an MSc in environmental economics and later a PhD in ecological economics. I was taught that Gross Domestic Product (GDP), the way we measure the economy, is a flawed metric. GDP is fine if you want to measure economic activity but totally inadequate for measuring societal progress. Yet I did not fully grasp the complexity underlying these statements. I can distinctly remember a friend of mine, a student of geosciences, asking me to explain a simple paradox of economic thinking. Why do economists think that economies should keep on growing indefinitely while at the same time acknowledging that GDP does not measure well-being? Why not strive for a society in which the population becomes happier but the economic activity remains constant or even diminishes? In hindsight I might be forgiven for not having a response in my first year of university, but I can remember feeling rather embarrassed that I could not answer this seemingly simple, but rather fundamental, question.

xvii

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xviii preface

In the early 2000s I got a front-row seat to the GDP issue as I started to work in the Department of National Accounts at Statistics Netherlands. This gave me an opportunity to see the enormous media interest and societal impact of GDP firsthand. Statistics Netherlands produces many other statistics, including excellent environmental accounts and social data, but the societal impact of GDP growth figures are in a different league. To paraphrase George Orwell, "all statistics are equal but some statistics are more equal than others". GDP is the headliner of the statistical world. I couldn't help but wonder why society craves this information above all other data.

As fate would have it, I got a life-changing opportunity to contribute to "Beyond-GDP", the quest to look for alternatives to GDP, in 2007. Together with my close colleague and friend, Jan Pieter Smits, I started working on the *Sustainability Monitor for the Netherlands* in the summer of 2007. The Dutch government commissioned Statistics Netherlands and three other policy institutes to create a measurement system for sustainable development.

Jan Pieter and I eagerly accepted the role of project manager. In the beginning, we spent quite some time going over the literature and reviewing the many alternatives to measure well-being and sustainable development. Despite our academic background in this field, we were overwhelmed by the plethora of measurement systems that were available. There were simply too many to review comprehensively. We plodded on enthusiastically because we learned every day about the enormous range of interesting and clever methods. Perhaps more importantly, we spoke to many inspiring and motivated people who were all working towards better measurement of societal progress. Hearing the energetic speeches at the various conferences confirmed to us that we were working on something interesting and important.

One of the most inspiring gatherings that we attended was the presentation of the Stiglitz-Sen-Fitoussi report on 14 September 2009. This report was commissioned by the French President Nicholas

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preface xix

Sarkozy because he wanted better measures of societal progress, and he asked Joseph Stiglitz and Amartya Sen (both Nobel Prize winners) and Jean Paul Fitoussi to lead a group of prominent thinkers to advise him. We were, naturally, very impressed by the grandeur of the Sorbonne auditorium, the quality of the report and the stellar speakers. But what struck us most was the "inclusive" philosophy of the report. The report was respectful of many strands of economic literature which had previously been given little attention by mainstream economists. These concepts, such as subjective wellbeing and social capital, were endorsed by the Stiglitz Report and synthesised into a coherent framework.

The Stiglitz Report was also crucial in our next project. In 2009, Jan Pieter and I were asked to be the co-chairs of the Joint UN–ECE/ OECD/Eurostat Task Force on Measuring Sustainable Development (TFSD). The TFSD was tasked to creating greater harmonisation in the measurement of sustainable development in developed countries. This was a daunting goal because the three lead institutions (UN-ECE, OECD and Eurostat), the World Bank and the ten developed countries already had their own frameworks to measure sustainable development. After five years of meetings a compromise was reached which synthesised many of the insights from the various countries' experiences. The TFSD was based heavily on the Stiglitz report and it is probably fair to say that without this conceptual basis it would have been nearly impossible to achieve a compromise.

In the end, the TFSD reached agreement and proposed a "suggested list of sustainable development indicators". In 2014, Jan Pieter and I had a proud moment when the report was endorsed by the Conference of European Statisticians (CES) – an organisation which has statistical representatives at the highest level from over fifty countries. Subsequently, the *CES Recommendations on Measuring Sustainable Development*, as the report is formally called, has been adopted by a couple of countries. There was however no pressure on the CES members to adopt the system and the subsequent adoption has been slow.

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XX PREFACE

Overall, the 2007–2014 period was very fulfilling. It was a time when I learned a great deal and worked with many fine colleagues, both nationally and internationally. We spoke at many conferences and gatherings. Jan Pieter and I became close friends. Yet as time went on, I felt a growing frustration about the Beyond-GDP scene. Around 2012, I had come across an (incomplete) database on the internet which showed that there were over 900 systems to measure sustainable development. Up to that point I knew that there were many measurement systems, but I had not expected it to be as high as 1,000!¹

Jan Pieter and I had also started to become more critical of conferences in which the enthusiastic creators were advertising the benefits and achievements of their indicator systems. In 2007 we thought this was inspiring, but by 2012 it started to look somewhat pointless to try to keep up with all the new initiatives. Every couple of weeks my email and Twitter account would alert me to yet another index that had been launched by a researcher or institute. Press conferences were held to promote the index and argue its superiority over other approaches. Fancy websites and slick web presentations would be made to convince everyone of the virtue of the new measurement system. And the number of alternatives to GDP just keeps on growing. Where is this leading?

The enormous enthusiasm and energy of the Beyond-GDP community is admirable and the past decades have resulted some excellent proposals. Yet at the same time "our" common goal of replacing GDP does not seem to be coming any closer. The number of alternatives is expanding at a staggering rate, but the societal impact is not. If a fairly experienced researcher like myself is having trouble keeping up with all the new initiatives, how confusing must this be to the general public? The Beyond-GDP community seems to be suggesting new indexes in the hope that one day one will hit the jackpot. But even after hundreds of attempts this strategy has not yet yielded the "golden index" – none has ever come close to

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preface xxi

replacing the role of GDP in society. Certainly there are success stories, such as the Human Development Index, Genuine Progress Indicator, Happy Planet Index, Adjusted Savings, the Better Life Index, Inclusive Wealth Index and Ecological Footprint, but these pale in comparison to GDP. Apparently there is hope in the community that one of these indexes will achieve a breakthrough or that someone, somewhere, is currently working on an amazing project which is so clever that someday soon the GDP hegemony will be broken. Over the years I have become increasingly convinced that this is wishful thinking. Something else is needed.

To channel our energy, Jan Pieter and I agreed to work only on projects that helped to reduce the number of measurement systems rather than expand it. Harmonisation efforts became our focus. The *CES recommendations* was an example that contributed to convergence. In our private conversations, we jokingly speculated about how to achieve more harmonisation. My favourite draconic rule was: "if you want to propose the 1001st indicator system you first have to explain what is wrong with the 1,000 others".

We started focusing on the commonalities of the various measurement initiatives rather than their differences. It turned out that if you look at the systems closely, there is a surprising degree of overlap. For the European Commission we wrote *The Convergence Report* in which we argued for more harmonisation of Beyond-GDP measures and more cooperation of the Beyond-GDP community.² We also started to work with the Global Reporting Initiative (GRI) to see whether there was common ground with the leading framework to measure Corporate Social Responsibility (CSR).

Ironically, the disarray of the Beyond-GDP scene made my respect for GDP grow enormously. Not for GDP as an indicator but rather GDP as a process. I started reading about the history of national accounts and GDP.³ I remember reading a PhD thesis by Frits Bos which said that by 1900 only nine countries had ever attempted to measure national income.⁴ Nine! Up to the 1930s, national income

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XXII PREFACE

was an obscure, ad hoc and fairly inconsequential metric, known only by a niche group of academics and statisticians. There were many different methodological approaches promoted by various researchers and institutes. In that period researchers would argue their definition of national income at economic conferences and gatherings. This sounded familiar to the situation that Beyond-GDP is currently in!

I became interested to know what happened after the 1930s to set GDP off on this amazing "rags to riches" success story. How did GDP become the superstar indicator that it is today? Does that story provide any insights into why Beyond-GDP is currently failing? Perhaps more importantly, does it provide clues about how Beyond-GDP might succeed?

My curiosity and frustration eventually led to the finalisation of this manuscript. In the process, my pessimism has made way for reasoned optimism: there is a way out of this situation.

There are two important messages in the book. Part I argues that Beyond-GDP is not doing well and will probably never succeed if this uncontrolled ever-expanding proliferation of initiatives continues. A new strategy is needed. In Part II it is argued that the main problem is that Beyond-GDP is a loosely connected set of theories and methodologies. It does not have a coherent community such as macro-economics. The strategy proposed in this book is to create a similar community for well-being and sustainability by 2030. It is this community which will create the new indicators, accounting framework and policies.

So despite the fact that this book was driven by frustration, it ends on a hopeful note. The optimism lies in the fact that there is more than enough scientific knowledge and data. The many decades of research have provided enough insights to offer a solid basis for the community. The well-being and sustainability research has more commonalities than differences. In addition, the big data revolution provides opportunities to create data at a lower cost or produce data

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preface xxiii

on phenomena that are not yet measured. The only real challenge is how to get this community-building process institutionalised at the global level. International institutes will be vital to supporting these efforts.

My worst nightmare is that the strategy is not changed and that this unfocused explosion of Beyond-GDP initiatives continues. By 2030, there might be hundreds, perhaps thousands, of additional indicator systems without having any meaningful impact on the hegemony of GDP.

Acknowledgements

This book was written in the period September 2016–May 2018 but some of the ideas have been brewing for much longer. A decade earlier, in August 2007, I received a phone call from Onno van Sandick of the Ministry of the Environment asking whether Statistics Netherlands would be willing to lead the "Sustainability Monitor for the Netherlands". As fate would have it, one month later Jan Pieter Smits came to work at Statistics Netherlands. Together we embarked on a tumultuous journey which included the UN-ECE/OECD/ Eurostat Task Force for Measuring Sustainable Development (TFSD), the European Union's "e-Frame-project" and the Dutch Parliamentary Commission for Broader Welfare Measures.

In these projects, Jan Pieter and I worked together intensely. We spent many hours talking about conceptual issues as well as tactical moves on how to get support for the ideas. It is hard to imagine that I will ever learn as much and work as closely together with a colleague. Without this basis I am convinced that this book would never have come about. Although our careers have now diverged, our friendship endures.

Along the way, I have been given many opportunities by my former employer Statistics Netherlands. Peter van de Ven, Brugt Kazemier, Marleen Verbruggen and Bert Kroese were particularly important during the initial phases. We collaborated with many great colleagues such as Ruben van der Helm, Anna Kulig, Hans Kolfoort, Marieke Rensman and Remco Kaashoek, who laboured tirelessly to make the various sustainability projects successful. Although I have not worked with them, I am also grateful to Karin van de Ven and Edwin Horlings for their dedication to the follow-up work on "Broader Welfare Measures".

xxiv

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Over the years we have also worked with many colleagues at Dutch and international institutes. Interinstitutional cooperation is sometimes cooperative and sometimes adversarial. Although the former is definitely more pleasant than the latter, it is often the disagreements from which you learn the most. They help stimulate ideas and bring discussions to a higher level. I would like to thank colleagues at the economic, environmental and social policy institutes of the Netherlands as well as our colleagues at the OECD, Eurostat and the World Bank for this cooperation. In particular, I would like to thank Lidia Bratanova of the UN-ECE for giving Jan Pieter and myself the opportunity to lead the TFSD. The support of Tiine Luigi and Vania Etropolska was also invaluable in making it a success. The Task Force meetings were always a guarantee for stimulating discussions in a cooperative atmosphere, which is a credit to the many dedicated members of the TFSD.

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