

Foreword and Acknowledgements

This Volume 23 of the *African Development Perspectives Yearbook* with the title “Business Opportunities, Start-ups, and Digital Transformation in Africa” has again benefitted from many contributions, from various inputs, and from important institutional support. The great number of contributions to this volume (essays, analytical surveys, country case studies, review articles, and book reviews) was made possible because of the continuing support from African and international organisations, from numerous research and development institutions, and from many individual development experts who are cooperating continuously with us on Africa. A great number of international and regional organisations, universities and research institutes have supported this project which led to this new publication of the *African Development Perspectives Yearbook*. While the volumes 20 (for 2018) and 21 (for 2019) had a focus on Science, Technology, and Innovation (STI) Policies, the volume 22 (for 2020/2021) was related to the Sustainable Development Goal (SDG) 9 and the achievements of Africa in this regard. This volume 23 is on digital transformation, digital entrepreneurship, digital start-ups, and digital business opportunities in Africa. It was of great importance to inform the global public about the anniversary ceremony of *Thirty Years (1989-2019) African Development Perspectives Yearbook*, an event which took place in 2019. The Festschrift was received with great interest as it contains so many suggestions for the future of the Yearbook project by former partners, supporters, contributors, and editors. A great number of former and still active contributors and editors have contributed to this Festschrift with essays on the history, the evolution, and the current situation of the Yearbook. The volumes 22 (for 2020/2021) and 23 (for 2022/2023) mark now the start of a further decade of this important publication on Africa’s development perspectives.

It is worth to mention the great number of supporters to the *African Development Perspectives Yearbook*, such as a number of international and regional organisations which have contributed over the years: The World Bank, the IMF (International Monetary Fund), UNESCO (United Nations Educational, Scientific and Cultural Organisation); ACBF (African Capacity Building Foundation); UNECA (United Nations Economic Commission for Africa); UNCTAD (United Nations Conference on Trade and Development), the African Development Bank (AfDB), the African Union (AU), the New Partnership for Africa’s Development (NEPAD). For the volumes 22 and 23, UNCTAD (United Nations Conference on Trade and Development) had a great role, as key experts have presented important contributions. For volume 23, a key expert from the African Development Bank (AfDB) has shared his knowledge and experience with our project. On the side of the universities, scientific academies, scientific governance institutions, and research institutes the following partners should be mentioned: the Department of Economics, Faculty of Economic and Social Studies University of Khartoum,

Khartoum, Sudan; the University of Bremen, Bremen, Germany, with its Chair in Small Business and Entrepreneurship at the Faculty of Business Studies and Economics, the University College London; the Alexander von Humboldt Institut für Internet und Gesellschaft (HIIG) in Berlin; the University of Oxford; the UNCTAD Division for Africa, Least Developed Countries, and Special Programmes; Université Rennes 2, France; Development Studies at the EHESS (École des Hautes Études en Sciences Sociales/School of Advanced Studies in the Social Sciences), Paris, France; Laboratory of Economic and Monetary Research (LAREM), Cheikh Anta Diop University of Dakar (UCAD), Dakar, Senegal; University of the Free State, Free State, Bloemfontein, South Africa; Free State Department of Health, Bloemfontein, South Africa; Odeion School of Music, University of the Free State, Free State, Bloemfontein, South Africa; Grid Related Research Group (GRRG) at the University of the Free State, Free State, Bloemfontein, South Africa; National Department of Health, Ministerial Committee for the Morbidity and Mortality of Children under 5 years, South Africa; National Coalition of the South African Civil Society for Women's, Adolescents' and Children's Health, South Africa; University of Ngaoundéré, Cameroon; ECM-Corporate & Investment Bank, Cameroon; Department of Political Science, University of Ghana; Global Development Institute, University of Manchester, Manchester, UK; United Nations University- MERIT, Maastricht, The Netherlands; The Open University, Milton Keynes, United Kingdom; World Bank Nigeria, Abuja, Federal Capital Territory, Nigeria; and various other institutions and agencies have contributed.

All these partners have directly supported this Yearbook project with contributions, expertise, and suggestions. Special thanks go to Professor Dr. Samia Satti Mohamed Nour, Department of Economics, University of Khartoum, Khartoum, Sudan, to Professor Dr. Ulrike Schuerkens, and to the research team of the University of the Free State, headed by Dr. Katinka de Wet and Dr. Herkulaas MvE Combrink. These experts have given advice from the first phase of planning this publication project, and they have accepted the task as unit and volume editors. Professor Samia Satti Osman Mohamed Nour accepted the position of the Book Reviews and Book Notes Editor for volume 22 (for 2020/2021), and this Unit 4 of the volume 23 (for 2022/2023) is again rich in entries of book reviews and book notes. Professor Dr. Samia Satti Mohamed Nour has already cooperated with her great expertise to the volumes 20 and 21 on STI policies in Africa as contributing to inclusive growth. Professor Ulrike Schuerkens has contributed as a guest editor with the Unit 2 on Digital Transformation and New Business Opportunities in West Africa. Interesting case studies report on digital entrepreneurship. We can be proud that she included contributions from the ManaGlobal programme, which has been supported by the European Union's Horizon 2020 Framework Programme through the Marie-Sklodowska Curie grant agreement 82374. Dr. Katinka de Wet and Dr. Herkulaas MvE Combrink from the University of the Free State (UFS) took over the function of unit and volume editors for Unit 3 on Digital

Transformation in South Africa to report in five essays on the opportunities of African universities to do development work around the university. They are co-directors of the Interdisciplinary Centre for Digital Futures (ICDF). This Centre of The University of the Free State's is defined as "a collaborative, co-creative, synergistic space – where social scientists, natural scientists, data scientists, engineers, health scientists, etc., collaborate, learn, and interact with industry, the private sector, government." We can be happy about the opportunity to have the first report on the development role of this important institution. The volume editor of volume 23 (for 2022/2023), Professor Dr. Karl Wohlmuth, from IWIM/Institute for World Economics and International Management and from the Research Group on African Development Perspectives Bremen, is indebted to these experts for their encouragement, ideas, concepts, and the valuable contributions to this volume of the *African Development Perspectives Yearbook*. The cooperation with them was enjoyable and intellectually rewarding.

Institutional support is welcomed by the *Research Group on African Development Perspectives Bremen*. Many organisations in Africa, like the African Development Bank (AfDB) Group, the United Nations Economic Commission for Africa (UNECA), the African Union (AU), and the NEPAD (New Partnership for Africa's Development) Secretariat have contributed with information and encouragement. Also, the OECD (Organization for Economic Cooperation and Development) and its Development Centre, the IMF (International Monetary Fund) with offices in Africa, and the World Bank (with various offices at headquarters and in Africa) have given advice and information. We, as the Editors of the Yearbook, are always interested in their advice and guidance to structure the future work on the *African Development Perspectives Yearbook*.

For the volume 23 (2022/2023) of the *African Development Perspectives Yearbook* the Editors of the Yearbook took up the issues of Digital Transformation, Digital Entrepreneurship, and Digital Business Opportunities in Africa. These issues are so important for the structural change in Africa and for the much-needed redirection of economic and social policies in Africa, as all the social, economic, political, and ecological dimensions are affected by the digital transformation process. The volume 23 (2022/2023) considers the fact that structural reforms and structural transformation processes in Africa request policies to guide the digital transformation. Digital Transformation will also impact all the sustainable development goals (SDGs). All the analytical essays and case studies, but also the book reviews and the book notes, which are contained in the volume 23, take stock of the impacts and outcomes of digital transformation in Africa.

Unit 1 presents in six essays an analysis of digital transformation in Africa, by investigating the links between digitalization and development of productive capacities, the trends of digital infrastructure in Africa, and the role of African transnational entrepreneurs in the digital business. Also, two key sectors (finance and health) are related to the digital transformation process; this is done in the form of

case studies for Cameroon and Nigeria. This Unit 1 gives the theoretical base - by highlighting the general issues of digital transformation in Africa. Developing productive capacities, developing digital infrastructure, developing African transnational entrepreneurship, and developing the digital base of key sectors (such as finance and health) are the four imperatives for policy action and for business activity. The Unit 1 reveals how important digital drivers and digital assets are for the success of digital entrepreneurs.

Unit 2 presents five essays which are focussing on new business opportunities which are created by the digital transformation in West Africa. In case studies for Senegal, Ghana, and the Ivory Coast there are analyses of IT incubators, IT start-ups, and IT projects. A case of a business conglomerate in Ghana outlines successful combinations of analogue and digital expansion strategies. The Unit 2 is part of a global research programme on entrepreneurship development; in this context it is of interest to see how digital entrepreneurs in West Africa take over the new business opportunities, what the barriers are, what the government and private business associations can do, and how business successes emerge. A key aspect which was discussed already in Unit 1 refers to the local context; successes depend on deep relations with local people, local businesses, local ethnical and social groups, and on their attitudes. Local business successes in the analogue world (such as in handicrafts) can gain substantially through digital platforms and apps.

Unit 3 contains five contributions on the role of universities to support the digital transformation process in Africa, with a special focus on the University of the Free State in South Africa. The surrounding rural and urban areas can benefit from digital solutions which are developed by digital centres of the universities, and the university staff can benefit from the practical examples during the demonstration and application of digital solutions. The analyses in Unit 3 relate to basic digital education, to digital solutions for improved small-scale farming, to specific eHealth advances for precision medicine, and to the use of digital twins in agriculture development strategies. The theoretical base for such a collective work is already strong, due to the collaboration of the various faculties and due to the intellectual capacity of the partners who are working in such digital centres. However, challenging is the cooperation of such digital development centres with rural people living from small-scale agriculture, with schools and their pupils, parents, and teachers in neglected areas and townships, with health and care centres which are not well equipped and connected, and with planning departments of government agencies which still prefer to work along traditional bureaucratic lines.

Unit 4 presents book reviews and book notes for publications in the context of digital transformation, digital entrepreneurship, digital start-ups, digital business opportunities, and related to the adoption of digital technologies and 4IR (fourth industrial revolution) technologies in Africa. Many studies and documents were considered for book reviews and book notes and were classified around seven (7) categories. Reviewed are publications on digital entrepreneurship, on digital

business opportunities, and on specific digital transformation processes. Global Development Reports and African Development Reports include the theme in various formats. More specific publications on these digital transformation issues are in the form of monographs, specific reports, and discussion papers. There are also reviews of publications on wider issues of Africa's development perspectives, and of great relevance in this regard are reviews of major global economic development reports and of regional African development reports.

Many institutions have over the more than three decades contributed to the various volumes of the *African Development Perspectives Yearbook*, with news and information about African countries and regions, with information about new research projects in and on Africa, with publications about policies and strategies in Africa, with documents about declarations and agreements related to Africa, and with research papers focussing on current themes for Africa, also when drafted at their early stage. So, the editors of the *African Development Perspectives Yearbook* can grasp new events and new developments in Africa very early; this allows it to invite contributors with a great expertise for specific units (and chapters). Many regional and international organisations, like the African Development Bank (AfDB), the African Union (AU) and its affiliated institutions, the UNECA (United Nations Economic Commission for Africa), the World Bank, the UNCTAD (United Nations Conference on Trade and Development), the UNDP (United Nations Development Programme), the IMF (International Monetary Fund), the UNIDO (United Nations Industrial Development Organization), and the ILO (International Labour Organization), continue to support our scientific and editorial effort by sending us relevant materials. They make available - always timely - new strategy documents and drafts of their research papers; this is of use for the conceptualization of our Units, especially of the Book Reviews and Book Notes Unit of the *African Development Perspectives Yearbook*. For volume 23, the United Nations Conference on Trade and Development (UNCTAD) and the African Development Bank (AfDB) stepped in as key partners. But it is also true that individual experts in these important development organizations are of great help to sustain our project; they open the doors, they invite us to cooperate, and they share their knowledge with us.

Also, UNU-WIDER (United Nations University - World Institute for Development Economics Research), as an institution of global importance for development research, has continuously supported our work with most recent research papers, with access to their development research conferences and to the networks of researchers and affiliated institutes, and with publications and information about important scientific events in their domain of development studies. Furthermore, we would like to thank all those institutions which make us part of their global research networks; so, they are informing so many others in the development field about our work for Africa, namely the continual publication of the *African Development Perspectives Yearbook*. This is the case now since 1989 when

the first volume appeared under the theme of “Human Dimensions of Adjustment”. The Festschrift on the “Thirty Years of the African Development Perspectives Yearbook (1989 – 2019)” contains the views of so many editors and contributors; this is an impressive list of the personalities who have formed the Yearbook. They are also the base for peer-reviews of manuscripts and for reviews of books, journals, declarations, discussion papers, and strategy documents.

We express our gratitude to those persons who accept the position as members of the Editorial Committee for the volumes of the *African Development Perspectives Yearbook*, by acting as Editors/Co-Editors of a Unit and as a Volume Editor. These persons add to the stock of knowledge of the Research Group. For volume 23 we had three guest editors, with two of them from Africa (South Africa). Numerous colleagues have contributed as peer-reviewers of manuscripts, and many of them are from Africa (Kenya, Cameroon, Sudan, South Africa, and from other African countries). We are also indebted to the UNECA offices in Addis Ababa and Kigali, as they have pushed us to launch volumes of the *African Development Perspectives Yearbook* in their offices. In October 2016 this idea was realised. The Acting Director of the Kigali Office of UNECA, Andrew Mold, organized a launch event with a great programme for the volumes 18 (2015/2016) and 19 (2017) of the *African Development Perspectives Yearbook*. A major launch event with a high-level audience took place in Kigali, Rwanda. Our Managing Director, Professor Tobias Knedlik, Research Professor at IWH Halle and Professor for International Economics at the Fulda University of Applied Sciences, and our Project Adviser and Key Contributor for the further volumes 20 (2018) and 21 (2019) in the pipeline, Dr. Nazar Mohamed Hassan, Senior Regional Adviser, UNESCO Regional Office in Cairo, presented the two just published volumes 18 (2015/2016) and 19 (2017) of the *African Development Perspectives Yearbook* in Kigali, Rwanda. They informed the attending experts, policymakers, ambassadors, the UN staff, and representatives of donor organizations and the media about the *African Development Perspectives Yearbook* Project. It was a great event, and African TV and Radio Stations reported in 48 African countries about the launch event for the volumes 18 (2015/16) and 19 (2017) of the *African Development Perspectives Yearbook*. We are expecting such events to be held in the future more regularly. Issues of the Yearbook are presented at other occasions also. Dr. Nazar Mohamed Hassan has presented the two volumes 20 (2018) and 21 (2019) of the *African Development Perspectives Yearbook* at meetings in UNESCO offices (in Cairo and Paris) and for parliamentarians in Cairo, Egypt. This information had given additional weight to the theme of “STI Policies for Inclusive Growth in Africa”. Professor Samia Satti Osman Mohamed Nour gave such information to members of the Faculty of Economics at Khartoum University, Sudan; she did this also for volume 22 (2020/21) on “SDG 9 and Africa’s development”. In Bremen, Germany, launch meetings also take place; and the presentation of the Festschrift

was a great event. We hope that we can realise such launch and information meetings also for volume 23 (2022/23) of the *African Development Perspectives Yearbook*. It may be a good idea - regarding the theme of volume 23 - to do this in cooperation with the Interdisciplinary Centre for Digital Futures (ICDF) of the University of the Free State (UFS) in Bloemfontein, Free State, South Africa and African Chambers of Commerce and Industry, such as The Pan African Chamber of Commerce and Industry (PACCI) in Addis Ababa, Ethiopia. The proposal is now on the table and is addressed to the responsible directors.

Professor Dr. Tobias Knedlik, the Managing Editor of the *African Development Perspectives Yearbook*, and Professor Karl Wohlmuth, the Director of the *Research Group on African Development Perspectives Bremen*, and its Volume Editor, are also thankful to Professor Samia Satti Osman Mohamed Nour from the University of Khartoum in Khartoum, Sudan for her continuous work as the Book Reviews/Book Notes Editor of the *African Development Perspectives Yearbook*. She has done many deep reviews of major reports, has widened the field of reviewers, and has prepared a Guide for Readers to explain the classification system (in cooperation with Professor Karl Wohlmuth). She is associated with important global and regional research institutions and has numerous advisory functions. The Unit 4 on Book Reviews and Book Notes provides detailed assessments of a great number of books, journals, discussion paper series, research papers, and documents which are related to the specific theme of the volume. But also, the Unit reviews global reports on the state of the world economy, reports on African countries' economic situation, and specialised publications on Africa's development perspectives. The Unit on Book Reviews and Book notes is based on a detailed list of subjects/classifications which are filled with relevant reviews; the Unit is of value for all those readers who want to go deeper in their understanding of African development perspectives.

We are thankful to all the contributors and supporters of the *African Development Perspectives Yearbook* for their hard work, their steady encouragement and their continuous assistance. The valuable inputs from leading African research institutions and their experts have contributed over the years to the success of the *African Development Perspectives Yearbook* as an outstanding publication on and for Africa. In 2019 the *African Development Perspectives Yearbook* project has celebrated its 30th birthday, as the first volume has appeared in 1989. The Festschrift which appeared at this occasion (now in the second edition) has motivated a great number of former contributors, editors, and supporters to continue with their work for the Yearbook project. Many of them help in the peer-review process of incoming manuscripts. The readers of the various *African Development Perspectives Yearbook* volumes have a great role in the success of the Yearbook project; they continuously have contributed with critical comments and with supportive encouragement, so that over time a valuable partnership has emerged between

readers, contributors, and editors. As the Yearbook is now an Open Access publication, this process of collaboration with readers is intensified.

Various institutions have made over the years donations and have funded specific allocations to the *African Development Perspectives Yearbook* project, but the support of the University of Bremen, Bremen, Germany is of invaluable importance. The University of Bremen was awarded by the German scientific research community in June 2012 (and up to 2019) the title “Excellence University”, and the *Research Group on African Development Perspectives Bremen* is very proud about this distinction. The great honour for the University of Bremen was helpful in the further work of the *Research Group on African Development Perspectives Bremen*. These donations, direct supports, and research grants to the *African Development Perspectives Yearbook* project and to various related research projects have helped us to intensify the research activities on African development issues in Bremen and in Africa, to distribute the various volumes of the Yearbook to African partner universities and to major African research institutions, and to invite research scholars from leading African research institutions to work with us in Bremen. Institutions like the Volkswagen Foundation and the Alexander von Humboldt Foundation have generously financed the stay of senior researchers at IWIM (Institute for World Economics and International Management) in Bremen. Also, the African Economic Research Consortium (AERC), the World Bank, and the International Monetary Fund (IMF) have contributed with research grants, invitations, and access to their networks, thereby supporting the research of our staff/guest researchers. The Department of Agricultural Economics and Extension, Ambrose Alli University, Ekpoma, Edo State, Nigeria has cooperated with us for many years; the researchers who stayed with us in Bremen are now back to their home university. Professor Reuben A. Alabi from this university has supported the Yearbook project as editor/co-editor and as contributor for many years, and he was a research collaborator in various development projects. The Research Group on African Development Perspectives Bremen is happy about a significant number of long-term partnership agreements which are of great value for the Yearbook project, especially the partnerships with Sudan, South Africa, Nigeria, and Tunisia. We are thankful for all these contributions and donations to the research activities on African development perspectives which are taking place in Bremen and in Africa; these are important supports for the *African Development Perspective Yearbook* project.

African Development Research Workshops were regularly held in Bremen at the University to discuss the draft papers which were intended for publication in the *African Development Perspectives Yearbook*. These African Development Research Workshops served as forums for the intensive discussion of the draft papers and of related research topics. Still there is contact to many of these research visitors; they are part of our network. These workshops are now replaced by online discussion forums about Units and Drafts, what has also to do with the COVID-

19 crisis. The Editors also want to express the thanks to the many referees of the draft contributions for their committed work which they are doing for the Yearbook. By this input the *African Development Perspectives Yearbook* has become over the years a fully refereed publication. Also, the reviewers of the many books, journals, research papers, and documents for the Book Reviews/Book Notes Unit are doing an excellent job. This new outlook and the new focus, as well as the new communication strategy, pay off. Past volumes, like the volumes 18, 19, 20, 21, 22, and now the new volume 23 give evidence of this important part of the work of the *Research Group on African Development Perspectives Bremen*. But there is still considerable interest in the prior volumes which started in 1989 with volume 1.

Many persons have given support, advice, and encouragement; others have helped with frank and critical assessments. However, the responsibility for the final product remains with the editorial team of the *Research Group on African Development Perspectives Bremen*. While the *Research Group on African Development Perspectives Bremen* is presenting its volume 23 for the year 2022/2023 with the title “*Business Opportunities, Start-Ups, and Digital Transformation in Africa*”, an International Call for Papers for volume 24 (for 2024/2025) with the title was already released to invite contributors and guest editors to participate in the work on this new project and to collaborate with us over the next years. The theme of the new volume 24 prepared for 2024/2025 with the proposed title “*Fiscal Capacity and Resource Mobilization in Africa – New Strategies and New Instruments*” is related to important research and cooperation programmes of the *Research Group on African Development Perspectives Bremen* on fiscal capacity and resource mobilization in African countries in times of global health, energy, climate, and food crises.

In the name of the Editorial Team:

Professor Dr. Tobias Knedlik, Research Professor at IWH Halle an der Saale, Germany and Professor of International Economics at Fulda University of Applied Sciences, Fulda, Germany, Managing Editor of the *African Development Perspectives Yearbook*, and

Professor Dr. Samia Satti Osman Mohamed Nour, Full Professor of Economics, Department of Economics, Faculty of Economic and Social Studies, University of Khartoum, Khartoum, Sudan, Affiliate of various international research institutes, Book Reviews/Book Notes Editor of the *African Development Perspectives Yearbook*, and

Professor Emeritus Dr. Karl Wohlmuth, University of Bremen, Chair for Comparative Economic Systems, Faculty of Economics and Business Studies, Director of the Research Group on African Development Perspectives Bremen, Scientific Coordinator, and Volume Editor of the African Development Perspectives Yearbook.