



ABEBA TADESSE GEBRESELISSIE

The Sustainability of Plants and Plant Intellectual Property Rights

DJØF PUBLISHING

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PREFACE

Written by an author with an African background, this book takes a fresh approach by identifying the legal challenges for the sustainability of plants in the context of African countries being providers of plants and European countries being users of plants. Plants are the subject of regulations on the one hand under environmental and agricultural laws, and on the other hand under intellectual property (IP) laws. The purpose of environmental and agricultural protection of plants is to enhance their conservation and sustainable use (in other words, the sustainability of plants). In comparison, the purpose of plant IP laws (patent laws, UPOV Conventions or any other *sui generis* laws such as the African Union Model Law) is to encourage the breeding of new varieties of plants and plant innovations.

Taking the examples of Ethiopian plants (such as teff, vernonia, *coffee Arabica*) accessed by European companies, the book examines the sustainability challenges connected with the various fields of law that regulate plants at different levels (international, regional (European and African), and national (Ethiopian)). Specifically, the book examines challenges not only within IP law but also within the fields of law that are designed to enhance the sustainability of plants such as agricultural law (International Treaty on Plant Genetic Resources for Food and Agriculture) and environmental law (Convention on Biological Diversity). It also examines how, and whether or not, the policy aims of the different, potentially conflicting regimes can be reconciled, and it gives guidance towards finding solutions.

To increase the sustainability of plants, genetic resource-rich developing countries have to facilitate access to their plants, and technology-rich developed countries have to share benefits obtained from the utilization of plants. The Access and Benefit Sharing (ABS) mechanism of the CBD is designed not only to increase the financial capacity of developing countries but also to increase the incentives to enhance the sustainability of plants. However, there are other challenges to realize the ABS mechanism of the CBD, which in turn raises challenges in terms of the sustainability of plants

in developing countries. First, users of plants may access them without signing any agreement that binds them to share the benefits. Second, as the case study on Ethiopian plants shows, even if there are material transfer agreements (MTAs) signed between the providing country and user companies, there are no strong mechanisms within the CBD to enforce the terms of the MTAs. Third, since most of the gene banks with many plant accessions are in developed countries, users of plants may not need to go to the source countries to negotiate on access and benefit-sharing, which this book illustrates in the context of the *Coffea Arabica* example.

In theory, plant intellectual property rights (IPRs) can enhance the sustainability of plants. By having a patent right or breeder's right, a user company can potentially increase its income, which will enable genetic resource providing countries to claim benefit sharing. However, in practice the actual benefit sharing depends on factors such as the existence of strong enforcement mechanisms for the MTAs. Concerning the negative impacts of the IP protection of plants, by examining Ethiopian plants, which are protected by European plant IPRs, this book shows that depending on the facts of the case, plant variety protections under the UPOV Convention can lead to more challenges for the access and benefit sharing mechanisms of the CBD than for the protection of plant-related inventions under patent laws. It further points out the considerable differences between the UPOV Conventions and the African Union Model Law, and the implications of such differences for the sustainability of plants. Thus, African countries should devise a *sui generis* system which fits their socio-economic situation, and which supports the sustainability of plants.

Against the backdrop of the concept of sustainable development, the IP protection of plants should support the sustainability of plants. In this regard, the proposal by various different countries to include the requirement of disclosure of origin in patent laws is aimed at ensuring that patent laws promote realization of the CBD's access and benefit sharing mechanism. By taking specific examples, this book shows that the requirement of disclosure of origin does not by itself help developing countries to achieve benefit sharing. Instead, the book recommends requiring the patent applicant to demonstrate that MTAs are in place, which helps to discourage illegal access to plants. With the entry into force of the Nagoya Protocol on Access and Benefit Sharing, depending on the extent to which it is implemented, the

enforcement of terms of MTAs may improve, and hence benefit sharing may increase. Furthermore, this book recommends that the discussions on the requirement of disclosure of origin and proof of access to plants under MTAs should be held not only within the context of patent laws but also within the context of plant variety protection laws such as the UPOV Conventions and any other *sui generis* system for the protection of plants. Taken as a whole, this book will be useful for researchers, lawyers, policy makers, and organizations that work on intellectual property, and on the environmental and agricultural protection of plants.

Abeba Tadesse Gebrselassie, Ph.D., Master of Law in Intellectual Property and Competition Law (LLM) is a postdoctoral researcher at the Department of Law, Aarhus University, Denmark.

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LIST OF ABBREVIATIONS

ABS	Access and Benefit-Sharing
AIPO	African Intellectual Property Organization
ARIPO	African Regional Intellectual Property Organization
CBD	Convention on Biological Diversity
CGIAR	Consultative Group on International Agricultural Research
CGRFA	Commission on Genetic Resource for Food and Agriculture
COP	Conference of the Parties
EPO	European Patent Office
EPC	European Patent Convention
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
GI	Geographical Indications
GPA	Global Plan of Action
IPRs	Intellectual Property Rights
IT-PGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IU	International Undertaking
MDG	Millennium Development Goal
MLS	The Multilateral System of Access and Benefit-sharing
MTA	Material Transfer Agreement
PGRFA	Plant Genetic Resources for Food and Agriculture
PGRs	Plant Genetic Resources
PIC	Prior Informed Consent
SGSV	Svalbard Global Seed Vault
SMTA	Standard Material Transfer Agreement
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
TK	Traditional Knowledge
UNCED	United Nations Conference on Environment and Development

UPOV	International Union for the Protection of New Varieties of Plants
USPTO	United States Patent and Trade Mark Office
WIPO	World Intellectual Property Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization