



Plant Genetic Resources and Food Security

**STAKEHOLDER PERSPECTIVES ON THE INTERNATIONAL
TREATY ON PLANT GENETIC RESOURCES FOR FOOD
AND AGRICULTURE**

EDITED BY

Christine Frison, Francisco López, and José T. Esquinas-Alcázar



Plant Genetic Resources and Food Security

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and José T. Esquinas-Alcázar*

Published by

The Food and Agriculture Organization of the United Nations
and
Bioversity International
with
Earthscan

earthscan
from Routledge

First published 2011
by FAO, Bioversity International and Earthscan
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Simultaneously published in the USA and Canada
by FAO, Bioversity International and Earthscan
711 Third Avenue, New York, NY 10017

Earthscan is an imprint of the Taylor & Francis Group, an informa business

Earthscan publishes in association with the International Institute for Environment and Development

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British Library Cataloguing in Publication Data

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

Library of Congress Cataloging in Publication Data

Frison, Christine.

Plant genetic resources and food security : stakeholder perspectives on the international treaty on plant genetic resources for food and agriculture / Christine Frison, Francisco López and José T. Esquinas-Alcazar.

p. cm.

Includes bibliographical references and index.

1. Germplasm resources, Plant. 2. Crops—Germplasm resources. 3. Food crops—Germplasm resources. 4. Plant genetic engineering. 5. Food security. I. López, Francisco. II. Esquinas-Alcazar, J. T. (José T.) III. Title.

SB123.3.F75 2011

338.1'9—dc23

2011008922

ISBN: 978-1-84971-205-7 (hbk)

ISBN: 978-1-84971-206-4 (pbk)

FAO ISBN: 978-92-5-106482-5

Typeset by MapSet Ltd, Gateshead, UK

Cover design by Adam Bohannon

Printed and bound in the UK by CPI Antony Rowe.

The paper used is FSC certified.

*To our children, Clara and Théodore,
who represent our Future*

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Acknowledgements

We would like to express our gratitude to a large number of people who contributed in different ways to the publication of this book.

First, we would like to highlight that this book would not have materialized without the expertise, knowledge, patience and goodwill of every author throughout this lengthy project. They represent all of those who made the Treaty possible, by stepping back from their positions to converge in common objectives of food security and poverty alleviation. These authors include: Shakeel Bhatti, Jan Borring, Pratibha Brahmi, Lidio Coradin, Carlos María Correa, José Ignacio Cubero, Olivier De Schutter, **Tewelde Berhan Gebre Egziabher**, **Modesto Fernández Díaz-Silveira**, Cary Fowler, Brad Fraleigh, Emile Frison, Fernando Gerbasi, Bryan Harvey, Geoffrey Hawtin, Cosima Hufler, René Lefeber, Eng Siang Lim, Elizabeth Matos, Patrick Mooney, Gerald Moore, Javad Mozafari Hashjin, Godfrey Mwila, Wilhelmina R. Pelegrina, Renato Salazar, Maria José Amstalden Sampaio, Cinzia Scaffidi, Shyam Kumar Sharma, Mary Taylor, Anke van den Hurk and Bert Visser. To all of you: Thank you!

We sincerely thank Bioversity International and the Food and Agriculture Organization (FAO) of the United Nations for their trust in this book project, which has allowed us to publish this volume within the book series 'Issues in Agricultural Biodiversity' co-published by Bioversity International and Earthscan. Special thanks are addressed to Isabel Lopez Noriega and to Michael Halewood for their constructive chapter reviews and for making our publication collaboration possible.

We would specifically like to thank all of those who contributed to the practical realization of this book. We received help from many colleagues at various levels: from providing constructive advice to valuable guidance, or even reviewing chapters in-depth. These persons include in particular: Fulya Batur, Carlos Correa, Elise Denoitte, Cary Fowler, Emile Frison, Yasmine Jouhari, Gerald Moore, François Pythoud, Matthias Sant'ana, Benjamin Six, Clive Stannard, Marie Schloen, Geoff Tansey, Bert Visser, Theo van Hintum and Esther van Zimmeren.

We thank Rachel Tucker, publishing, planning and rights officers of FAO for facilitating the partnership arrangements for this publication. Special thanks go to Paola Franceschelli, who has assisted us in double checking many meeting and document references. We also extend our recognition to the staff of the Secretariat

of the International Treaty. We are deeply indebted to **Désirée Khoury and Gabriella Petrilli**, from FAO, for their enthusiastic and helpful technical assistance in the editing, formatting and proofreading of the draft manuscript. We also pay tribute to the staff at Earthscan for their support, in particular, Tim Hardwick, Anna Rice, Claire Lamont, Nick Ascroft and Rob West.

We would also like to recognize the financial support of Spain, Italy and the FAO, which will make possible the distribution of free copies to contracting parties to the International Treaty and to international reference centres. Similarly, this publication would not have been achieved without the administrative and financial assistance of several persons and institutions. First, the Centre de Philosophie du Droit (CPDR – Centre for Philosophy of Law), Université catholique de Louvain (Belgium) has borne the financial costs for the work of the main editor of the book, Christine Frison. Additionally, we appreciate the constant support of the Cátedra de Estudios sobre Hambre y Pobreza (CEHAP) of the Universidad de Córdoba (Spain), as well as the hospitality of the Diputación de Córdoba by providing a venue for one meeting organized between the co-editors to work on the book. Finally, the book was finalized during the Fourth Session of the Governing Body of the Treaty held in Bali in March 2011. We sincerely thank the generous financial contributions from Emile Frison and Professor Jacques Lenoble (CPDR, through the Interuniversity Attraction Pole funding (IAP) – Phase VI /06, 2007–2011) for funding the participation of Christine Frison to the Fourth Session of the Governing Body.

We deeply thank Mrs Frison's PhD supervisors Professors Tom Dedeurwaerdere, Olivier De Schutter (CPDR) and Geertrui Van Overwalle (CIR) for their overall support to the project.

This project came together during the International Year for Biodiversity in 2010. A major objective of this volume is to raise further public awareness on the importance of agricultural biological diversity to human food security. We hope that this book makes a contribution to that effort.

Last but not least, we were encouraged all through the process with the love, faith and practical support of our families, friends and even neighbours, in particular, when we were under tight time pressure and constraint to work during late nights. To everyone, we sincerely thank you!

Foreword

Shakeel Bhatti and Olivier De Schutter

The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA or the Treaty) is all about building bridges and connecting countries and people; it is about pooling collaborative, cooperative and common action. The Treaty provides a framework to allow the global community to work together for food security, adaptation to climate change and the sound management of agrobiodiversity – always keeping in focus the needs of farming communities, the poor and the hungry, and their right to food. States interacting with other states, people interacting with other people, with institutions (whether public or private), with civil society organizations, with research institutes and with commercial entities create multilateralism through their interactions. People are at the core of multilateralism. And it is this kind of collective and cooperative action, oriented towards the attainment of common goals, that the global crises facing the 21st century requires.

This book intends to shed light on the institutional set up that took place during the negotiation process between contracting parties and people who made this Treaty possible. By aggregating their interests, these states have established a multilateral instrument aimed at alleviating hunger and poverty in the world. They embrace farming communities, plant breeders, civil society organizations, seed industry or state's representatives.

In 2009, this book was merely an embryonic project held in the hands of a young and enthusiastic woman, driven by her will to eagerly understand how this collective action came about, and led to the birth of the Treaty. At that moment in time, the United Nations Secretary General, Ban Ki-moon and the European Commission President, José Manuel Barroso both called for 'a new multilateralism which is centred around the delivery of global public goods' to address the interrelated crises of food, energy and climate. As the Secretary General articulated at the Summit of the Americas:

We need a new vision, a new paradigm, a new multilateralism. A multilateralism that is organized around delivering a set of global goods. A

multilateralism that harnesses both power and principle. A multilateralism that recognizes the interconnected nature of global challenges.

Today, the International Treaty on Plant Genetic Resources for Food and Agriculture embodies this new paradigm of collaboration in an interdependent world. In that respect, its lessons reach far beyond the food and agriculture sectors. This Treaty was the first of its kind in the 21st century and it remains at the cutting edge of such a new, results-driven and output-oriented multilateralism. Together, stakeholders have established the first system to facilitate multilateral management of global public goods for the 21st century. This system covers a global gene pool of more than 1.3 million samples of plant genetic material that contracting parties govern collectively and multilaterally for the sake of the poor and the hungry. Through this gene pool, the current 127 contracting parties to the Treaty control – and are responsible for – the basis of more than 80 per cent of the world's food that is derived from plants. Moreover, it is also our most important tool for adapting to climate change in agriculture in the years to come.

The Treaty: An expression of multilateralism

The Treaty first illustrates this new multilateralism in the realms of the multilateral system of access and benefit-sharing. This mechanism is based on a wide partnership, linking the Consultative Group on International Agricultural Research (CGIAR) centres and other national, regional and international institutions and gene banks to facilitate its implementation by contracting parties and users of the system. This multilateral system still raises important questions for the various actors involved: farmers who need to be assured that the seeds, which their communities have developed over generations, will benefit humanity and that they will in return have access to the seeds they need in their farming systems; holders of gene bank collections who need to be convinced that their collections will also benefit from facilitated exchange; users who want to ship seeds but whose legal counsels notify that they first need more information on the meaning of a particular clause in the Standard Material Transfer Agreement before the shipment can take place; researchers who worry about intellectual property rights over their research results; and finally breeding companies, which are willing to share benefits in accordance with the Treaty, but wish to be assured that they will not be accused of biopiracy.

The multilateral system has been designed for all of these various actors, providing a framework under which they can cooperate. The framework must balance the needs of these different stakeholders and ensure that they will interact in ways that are both transparent and adequate for their mutual benefit. This collaboration between them is the *sine qua non* condition for addressing the challenges that the world currently faces: climate change, population growth and persistent poverty, particularly in the rural areas among the small-scale food producers.

Multilateralism as promoted by the International Treaty does not stop there, with the provision of an appropriate framework for cooperation. It also finds a concrete illustration in the funding strategy accompanying the multilateral system. A first call for proposals under the benefit-sharing fund in 2009 led to the selection of the first 11 benefit-sharing projects in the history of plant genetic resources. The successful completion of this first test-run of benefit-sharing under the Treaty has proven that international benefit-sharing within a binding legal architecture can work on a multilateral basis. Under the framework of the Treaty, international benefit-sharing is now working in practice, on the ground, for those actors who conserve and contribute to the development of the plant genetic diversity that feeds us all. These actors include, for instance, the Andean farming community that conserves *in situ* old varieties of potato in its centre of origin; the African genetic resource centre that is struggling to adapt its national crops to climate change and ensure food security; the Asian NGO driven by a group of local women that is developing locally adapted cultivars for small scale enterprises to ensure local livelihoods; and the Near Eastern gene bank that is conserving on-farm and *in vitro* its rich local citrus varieties.

While the benefit-sharing fund is still in its infancy, it shall grow rapidly in the years to come. A second call for proposals made in 2010 has led to the selection of a larger number of projects after the Fourth Session of the Governing Body of the Treaty in Bali, in March 2011. In this way, the funding strategy has begun to effectively fulfil its potential to provide tangible support for the three priorities set at the Second Session of the Governing Body, namely on-farm conservation, sustainable use of plant genetic resources and information exchange. In implementing these priorities, special attention should be given to ‘farmers in developing countries ... who conserve and sustainably utilize plant genetic resources for food and agriculture’, as stipulated in Article 18.5 of the Treaty. Thus, the Treaty can complete the virtuous circle of facilitating exchange and practically supporting the conservation and sustainable use of agricultural plant genetic resources, particularly by and for those people who have developed and conserved these resources over the ages.

By encouraging capacity-building, the Treaty offers a third example of a new breed of multilateralism suited to an interdependent world. The capacity-building of stakeholders in the conservation and development of plant genetic resources for food and agriculture is a crucial part of this collective endeavour. At the 2nd session of the Governing Body, contracting parties created a ‘Capacity Building Coordinating Mechanism’ to support the national implementation of the Treaty. Enhanced collaboration between FAO, Bioversity International and the Secretariat of the International Treaty on the one hand and new partnerships on the other hand, led to the establishment of a Joint Capacity Building Programme. This programme provides assistance to developing the policies, legislation and institutional and administrative practices and arrangements necessary to implement this instrument. The International Treaty has also to be able to provide a set of information technology tools and systems that help users to find the material included and to report on their obligations. Furthermore, contracting parties have also

showed interest in developing Article 17 on global information systems, taking into account existing information systems, current trends and opportunities.

Fourth, the Treaty encourages collective learning and progress through peer pressure towards the fulfilment of the goals it sets for itself. This is clear, for instance, in the area of Farmers' Rights. The International Treaty recognizes:

the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world. (Art. 9.1.)

It refers to the responsibility of the contracting parties to realize Farmers' Rights, by (a) protecting traditional knowledge relevant to plant genetic resources for food and agriculture; (b) ensuring that farmers can equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and (c) protecting their right to 'participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture' (Art. 9.2). While these provisions remain vague and their implementation uneven across member states, the 3rd session of the Governing Body held in June 2009, in Tunis, agreed that contracting parties should review all measures affecting Farmers' Rights and remove any barriers preventing farmers from saving, exchanging or selling seed; and that they should fully involve farmers in national and/or regional workshops on the implementation of Farmers' Rights and report back on the implementation of Farmers' Rights at the fourth meeting, held in Bali in March 2011. This should encourage states to fully implement Article 9 of the Treaty: it illustrates that, for collective action to succeed, it may have to rely on the sharing of experiences and of information, where agreement on a detailed and binding legal framework may not be achievable at the outset.

Finally, new multilateralism can be observed within the Treaty Secretariat that developed into a lean, nimble and dynamic institution which, under its parties' guidance, ensures a transparent management of the plant genetic resources defined as a new global public good. Multilateralism also means that the Secretariat should never attempt to substitute itself for stakeholders in the conservation and sustainable use of plant genetic resources. By creating outcome-oriented partnerships, new platforms for cooperation have been provided, so that the whole can be larger than any one input. By acting so, the Treaty has become a model of a forward-looking and dynamic management for the 21st century. It is a light and flexible structure, but it is probably better suited to the task rather than larger bureaucracies whose ability to evolve in a dynamic environment is generally more limited.

The Treaty in a changing world

The Treaty is also becoming a model for other international decision-making processes: for instance, other United Nations bodies, such as the World Health Organization in its process on virus-sharing and benefit-sharing; the Convention on Biological Diversity in the elaboration of its own international regime on access and benefit-sharing; and the United Nations Convention on Law of the Sea, with regard to the genetic resources of the deep sea-bed – all are looking at the Treaty as their reference point in crafting customized multilateral systems. These new regimes for international cooperation in the maintenance and shared use of global public goods form the vanguard of public international law, combining innovative legal frameworks and practical operational systems, for the global gene pool and for the support of conservation and sustainable use through the funding strategy. In the future, similar regimes could develop, for instance to ensure the transfer of clean technologies to developing countries to support them in their efforts to mitigate climate change or to facilitate the management of freshwater resources that is based on cooperation and trust, not competition and distrust.

Therefore, the Treaty community needs to keep in mind this bigger policy picture. This international legally binding instrument is more relevant than ever in the broader policy context. It is at the crossroads where many policy-making processes converge: conservation and the sustainable use of biodiversity; recognition of traditional knowledge; trade; sustainable economic growth and development; innovation policy and intellectual property; adaptation to climate change; and above all, food security and the moral imperative to feed a still growing and often unacceptably poor world population to ensure that their human right to adequate food can be guaranteed.

May the reader of this book recall that each and every stakeholder plays an important role in reaching the Treaty's objectives of conservation, sustainable use and facilitated access to and benefit-sharing of plant genetic resources for food and agriculture. It is these same actors' interactions, and their resulting collective action, that has allowed for the creation of such an innovative multilateral system designed to safeguard food security and alleviate rural poverty in the world. Trust between the stakeholders involved, both private and public, including both providers and users, is key to the system's harmonious functioning. This book should allow each set of actors to better understand the perspective of the other actors with whom they cooperate. Finally, we deeply thank the authors and editors for their generous, and gratuitous contributions to this volume.

Dr Shakeel Bhatti

Secretary of the Treaty on Plant Genetic Resources for Food and Agriculture

Prof Dr Olivier De Schutter

United Nations Special Rapporteur on the Right to Food

List of Acronyms and Abbreviations

ABS	Access and Benefit Sharing
AG	African group
ARIS	Agricultural Research Information System
ASSINSEL	International Association of Plant Breeders for the Protection of Plant Varieties
AU	African Union
BDA	Biological Diversity Act
BSI	Botanical Survey of India
CBD	Convention on Biological Diversity
CEHAP	Cátedra de Estudios sobre Hambre y Pobreza
CePaCT	Centre for Pacific Crops and Trees
CGIAR	Consultative Group on International Agricultural Research
CGN	Centre for Genetic Resources The Netherlands
CGRFA	Commission on Genetic Resources for Food and Agriculture
CIAT	International Centre for Tropical Agriculture
CIMMYT	International Maize and Wheat Improvement Centre
COAG	Committee on Agriculture
COMESA	Common Market for Eastern and Southern Africa
CSIRO	Commonwealth Scientific and Industrial Research Organisation
COP	Conference of the Parties
CSO	civil society organization
CWANA	Central and West Asia and North Africa region
DAC	Department of Agriculture and Cooperation
DAFF	Department of Agriculture, Fisheries and Forestry (Australia)
DARE	Department of Agriculture Research and Education
DUS	distinctiveness, uniformity and stability
EAC	East African Community
ECOWAS	Economic Community of West African States
ERG	European regional group
EU	European Union
FAO	United Nations Food and Agriculture Organization
FSM	Federated States of Micronesia
GCDT	Global Crop Diversity Trust
GB	Governing Body of the ITPGRFA
GIPB	Global Partnership Initiative for Plant Breeding Capacity Building

GMO	genetically modified organism
GPA	Global Plan of Action
GRIN	Genetic Resources Information Network
GRULAC	Group of Latin America and Caribbean Countries
HOAFS	Heads of Agriculture and Forestry Services
IARC	International Agricultural Research Center
IBPGR	International Board for Plant Genetic Resources
ICAR	Indian Council of Agricultural Research
ICCAI	International Climate Change Adaptation Initiative
ICDA	International Coalition for Development Action
ICRISAT	International Crops Research Institute for the Semi-Arid-Tropics
IITA	International Institute of Tropical Agriculture
INGO	international non-governmental organization
IPCC	Intergovernmental Panel on Climate Change
IPGRI	International Plant Genetics Research Institute
IPR	intellectual property rights
ISF	International Seed Federation
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IU	International Undertaking on Plant Genetic Resources
LAC	Latin America and the Caribbean Region
LAN	Local Area Network
MDG	Millennium Development Goal
MLS	multilateral system of access and benefit-sharing
MoEF	Ministry of Environment and Forests
MTA	material transfer agreement
NAG	National Active Germplasm Site
NBPGR	National Bureau of Plant Genetic Resources
NGO	non-governmental organization
OAU	Organization of African Unity
ODA	Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PAPGREN	Pacific Plant Genetic Resources Network
PGR	plant genetic resources
PGRFA	plant genetic resources for food and agriculture
PPV&FR	Protection of Plant Varieties and Farmers' Rights Act
RAFI	Rural Advancement Foundation International
SADC	Southern African Development Community
SAU	state agricultural universities
SGRP	System-wide Genetic Resources Programme
SMTA	standard material transfer agreement
SPC	Secretariat of the Pacific Community
TLB	taro leaf blight
TRIPS	Trade-related Aspects of Intellectual Property Rights (Agreement on)
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UPOV	Union for the Protection of New Varieties of Plants
USDA	United States Department of Agriculture
WANA	West Asia and North Africa region
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

'Omnium autem rerum, ex quibus aliquid acquiritur, nihil est agri cultura melius, nihil uberius, nihil dulcius, nihil homine libero dignus'

Cicero, *De Officiis*, I, 42-151

'But of all the occupations by which something is built up, none is better than agriculture, none rewards more, none is more pleasant, none is more worthy for a freeman'

(Personal translation)

Chapter 1

Introduction

A Treaty to Fight Hunger – Past Negotiations, Present Situation and Future Challenges

*José T. Esquinas-Alcázar, Christine Frison
and Francisco López¹*

This introduction provides readers with a general overview on the content and structure of the book, the context in which the major issues related to plant genetic resources for food and agriculture (PGRFA) emerged, its relevance for humankind and some interesting details of the negotiating and implementation process of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA – the Treaty). The authors have taken this opportunity to express their personal views on some of the major challenges ahead of the Treaty, which will be further developed in the concluding chapter of this volume.

About the book

This book touches upon wide-ranging issues, such as international food policies and governance, economic and social aspects of food and seed trade, conservation and sustainable use of agricultural biodiversity, hunger alleviation, ecological concerns, consumer protection, fairness and equity between nations and among generations, plant breeding techniques and climate change adaptation. It provides for an extensive overview of the ITPGRFA negotiating and implementation process, undertaken by the stakeholders themselves. The authors identified challenges faced by the ITPGRFA and its community of stakeholders during this new and exciting phase of implementation, and explained the different interests and views of the major players in the global food chain.

Chapters have been grouped into three parts. **Part I** provides the views and standpoints of a number of protagonists that were part of national delegations during the negotiating and implementation process. They stand for the seven regional groups of the Food and Agriculture Organization of the United Nations (FAO): Africa, Asia, Europe, Latin America and the Caribbean, Near East, North America and South West Pacific (**Chapters 2 to 9**). **Part II** brings together the opinions of key stakeholders involved in the food chain worldwide: farming communities, plant breeders, gene banks, the Consultative Group on International Agricultural Research (CGIAR), the Global Crop Diversity Trust, the seed industry, civil society organizations (CSOs) and consumers (**Chapters 10 to 17**). Finally, **Part III** puts forward the opinions of highly recognized experts regarding key aspects of the implementation of the Treaty (**Chapters 18 to 20**). Five annexes complement information on the ITPGRFA and its negotiation. **Annex 1** lists the meetings held at the FAO Commission on Genetic Resources for Food and Agriculture for the negotiation of the Treaty (1983–2001), as well as the meetings that took place since the signature and entry into force of the Treaty (2002–2011). **Annex 2** provides the list of all contracting parties to the Treaty, by FAO regional groups. **Annex 3** details the main components of the Treaty. **Annex 4** gives a national perspective on the implementation of the treaty by Brazil; while **Annex 5** comes back to specific anecdotes from the inception of the Treaty negotiations which express well the atmosphere in which the discussions on an international instrument for PGRFA began.

With a concern for unity, the authors were requested to focus on specific issues, following essentially the guidelines below:

- Analyse the regions' and stakeholders' positions during the negotiation process and the early implementation phase.
- Analyse the merits and drawbacks of the Treaty.
- Examine the practical legal, political, environmental and economic issues that have arisen between all involved regions and stakeholders in the negotiation and implementation, focusing on the obstacles that have been overcome.
- Identify the main challenges ahead and summarize some of the options and views on how these could be met as already expressed by regions and stakeholders.

Given the nature of the book and the heterogeneity of stakeholders, their different interests and personalities, the chapters differ in style, content and conclusions. It has been the role of the editors to harmonize them, minimize the overlaps, make the appropriate cross-references and include tables, annexes and reference material, in an attempt to ease the book's consultation and use. Every contribution bears in common the invaluable output to provide crucial information on stakeholders' positions regarding the Treaty, information that has not yet been published elsewhere. The book shows that despite the conflicting interests, which are duly highlighted, all players manage to come to an agreement to share and help conserve PGRFA for the sake of global food security and hunger alleviation. This