

SUSTAINABLE AGRICULTURAL SYSTEMS, KNOWLEDGE AND INSTITUTIONS (SASKI)  
GOOD PRACTICE NOTE

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# Managing Intellectual Property and Commercialization in Public Research Organizations

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*The World Bank  
Rural Development Family  
Sustainable Agricultural Systems, Knowledge and Institutions (SASKI)*

Sustainable Agricultural Systems, Knowledge and Institutions (SASKI) is a thematic group that promotes sustainable agricultural production, processing and marketing systems through gender -responsive knowledge institutions within the Rural Development Family of the World Bank . Agriculture is defined to include crop, livestock and aquaculture.

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## Foreword

In the past decade, the privatization of research and growing assertion of ownership by research organizations over biological inventions and germplasm assets through application of stronger intellectual property rights (IPR), are radically reshaping agricultural research, especially research in plant breeding and biotechnology. In addition, many public research systems have experienced a funding crisis that has squeezed operating costs and encouraged research organizations to commercialize many of their products and services in order to earn revenues to augment their budgets. The purpose of this Good Practice Note is to outline principles and strategies for public research organizations with respect to intellectual property (IP) and income generation and suggest needed policies and capacity building for public research organizations to operate in this new environment. The Note addresses questions such as: How can the public sector provide a flow of genetic resources to maintain genetic diversity and options for farmers? What should be the balance in public research between commercialization of its products and serving the needs of poor farmers? How can the public sector gain access to proprietary tools and technologies to serve the poor, and when should it take out IPRs on its own products? Is income generation consistent with the wider mandate of public research organizations to maximize benefits to society as a whole?

SASKI Good Practice notes are intended to disseminate views, experiences, and ideas that may assist World Bank Task Team Leaders,

national counterparts from Borrower countries, and other partners with preparation and implementation of projects to promote sustainable agricultural production and knowledge systems. The series contains lessons from innovative experiences in World Bank projects and elsewhere, and makes this information readily available for comment and use by project teams.

SASKI is the Thematic Group for Sustainable Agricultural Systems, Knowledge and Institutions, composed of World Bank staff working to promote sustainable agricultural production, processing and marketing systems through gender-responsive knowledge institutions. The overall team objective is to enhance the effectiveness of Bank support to agricultural development, and thus contribute to the Bank's objectives of reducing poverty, ensuring food security, and improving sustainable management of natural resources. The SASKI group emphasizes sharing of experiences and exchange of information among agricultural practitioners in the World Bank and its partners.

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## Executive Summary

In the past decade, the privatization of research and growing assertion of ownership by both private and many public R&D organizations over biological inventions and germplasm assets through application of stronger intellectual property rights (IPR) and other means, are radically reshaping agricultural research, especially research in plant breeding and biotechnology. In addition, many public research systems have experienced a funding crisis that has squeezed operating costs and encouraged research organizations to commercialize many of their products and services in order to earn revenues to augment their budgets. These trends have been reinforced by international treaties, such as the Trade-Related Intellectual Property agreement under WTO which requires countries to adopt IPRs for plant varieties, and the Convention on Biological Diversity which allows countries to assert ownership over genetic resources.

The purpose of this note is to outline principles and strategies for public research organizations with respect to intellectual property (IP) and income generation and suggest needed policies and capacity building for public research organizations to operate in this new environment. It addresses questions such as: How can the public sector provide a flow of genetic resources to maintain genetic diversity and options for farmers? What should be the balance in public research between commercialization of its products and serving the needs of poor farmers? How can the public sector gain access to proprietary tools and technologies to serve the poor, and when should it take out IPRs on its own products? Is income generation consistent with the wider mandate of public research or-

ganizations to maximize benefits to society as a whole?

In the public sector, the development of an institutional policy on management of IP and on income generation from it, must have its major objective to maximize benefits of public investments to society and ensure equity in the distribution of those benefits. This will require institutional strategies and policies in a number of areas.

1. Development by regional and international germplasm networks need of rules and, possibly, a legal entity for the management of varieties that will be increasingly covered by Plant Varietal Protection (PVP) and a capacity for regional PVP registration and communication of registration data across member countries.
2. A strategy by public organizations to gain access to proprietary tools and technologies related to biotechnology, with the freedom to operate for *both* research and commercial release of technologies. Options include unilateral accessing a tool in situations where it is not protected in the country of use, material transfer and licensing agreements, outright purchase of IPRs on a given tool; and various types of joint ventures between the public and private sector, in which contributions of assets by each party, and cost and benefit sharing are agreed *a priori*.
3. Establishment of a policy on protection of IP developed by the organization itself in ways that are consistent with the mandate of public research to maximize societal benefits.