

AGRICULTURAL RESEARCH MANAGEMENT

Agricultural Research Management

edited by

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PREFACE

Agricultural research is one of the oldest and most widespread forms of organized research in the world, in both developed and developing countries. Starting by the middle of the 19th century, organized agricultural research was taking place in institutions such as the Agricultural Chemistry Association of Scotland, the Agricultural Experiment Station, Saxony, and the Land Grant Colleges in the United States, leading within 150 years to a tremendous increase in food production.

Management of agricultural research involves many decisions that have scientific, social and political consequences. Every country has established agricultural research priorities based on many complex factors that must be considered when decisions are made on the choice of research problems to be investigated. Resources must be divided among projects that often compete for the limited funding available that supports the total research enterprise. Wishes by stakeholders have to be considered as well as the aspirations of the individual researcher. A wise management will try to accommodate both. In addition, a system of incentives for the researcher (and his technicians) to promote first class research within the mandate of the institute will promote their output. Advancement based on merit and achievements is a necessity also in government institutes not to be bound by regular civil service regulations. These have to be handled by independent promotion committees, including scientists from other institutions, to prevent favoritism.

Periodic reviewing of research units should become an integral part of the agricultural research management. It is advisable to include outside scientists as well as some farmers or extension specialists in the review board.

In this book various research systems from different countries are represented. Each country developed its own system according to the local conditions and

necessities. However, it should be possible to adopt practices from one country into the local system.

Due to reduced funding by governments (or parent organizations) many institutions rely on external grant funding. To a certain extent this may be welcome, as it requires the researchers to compete on the global market. However, grant funding should not be more than 30% of the total; otherwise the main mandate of the institute will be neglected.

The reduced funding for agricultural research in many of the developed countries and their agencies should be reconsidered; especially as population increases on the globe forecast a severe food shortage. The wise management of resources for agricultural research will therefore be of major importance. We hope that this book will be of some value in this direction.

Gad Loebenstein

George Thottappilly
April 2007

COLOR PLATES

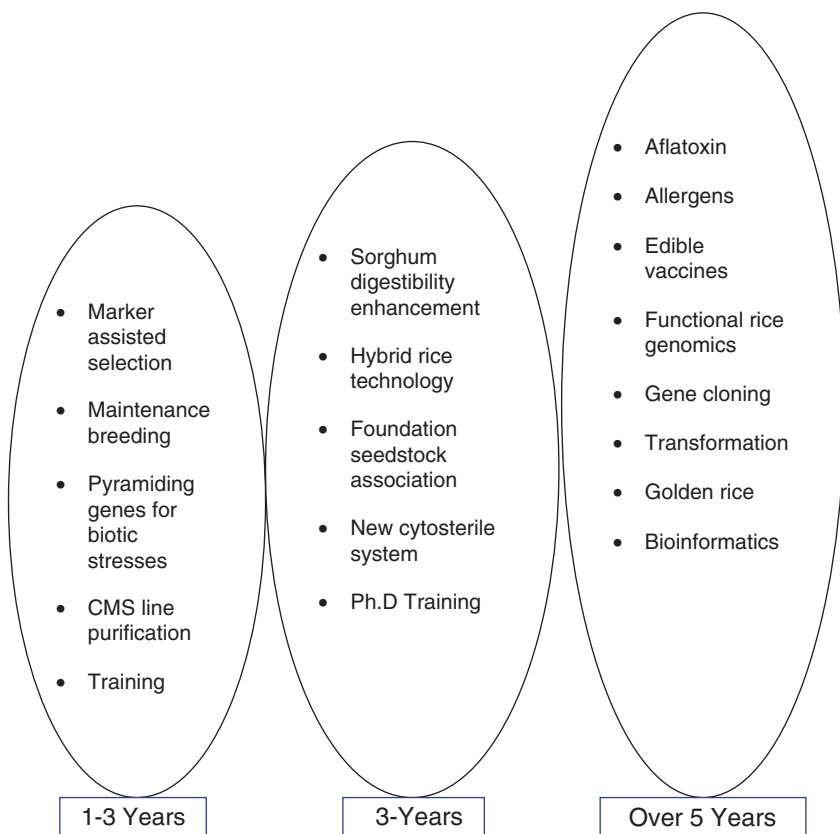


Plate 1 Short, intermediate and long term projects. (Present as Figure 1 in Chapter 1)

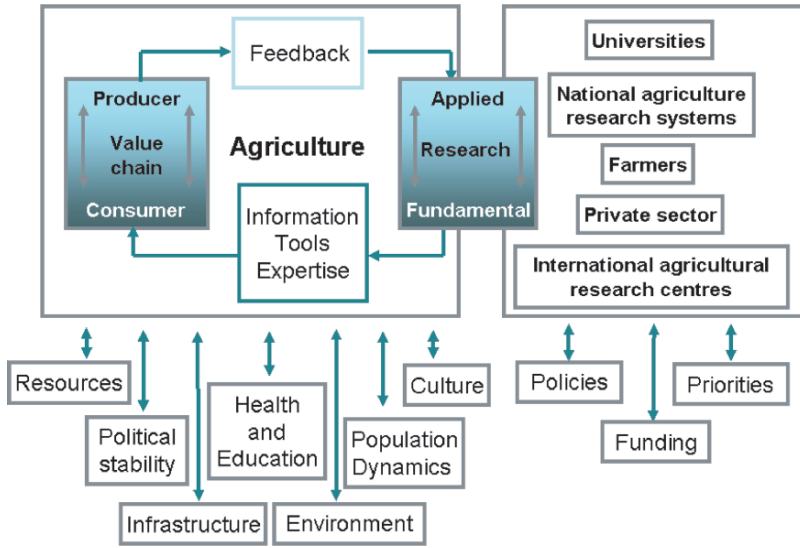


Plate 2 Complexity in agricultural research and the interactions that have to be orchestrated to ensure visionary leaders for agricultural research management. (Present as Figure 1 in Chapter 6)

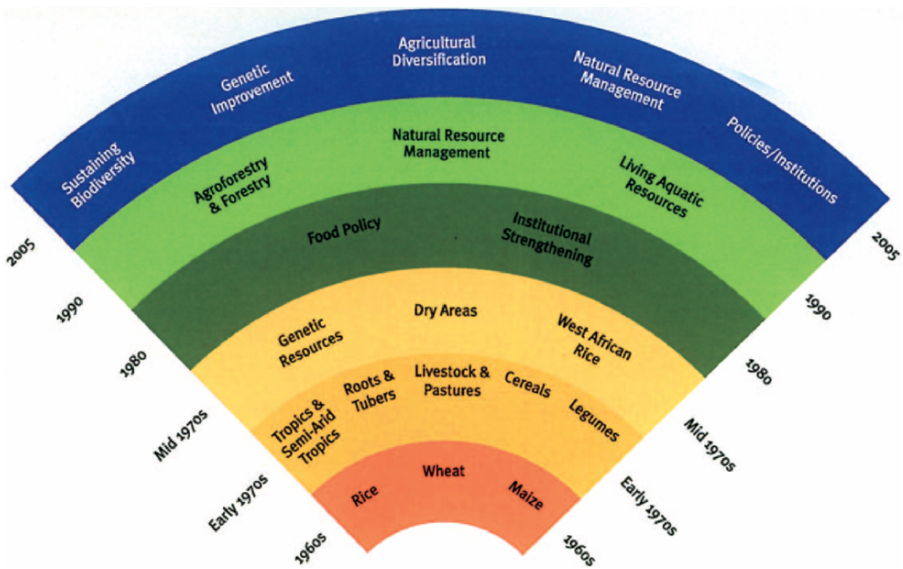


Plate 3 CGIAR research agenda with the year in which mandate was initiated. (Present as Figure 1 in Chapter 10)



Plate 4 Map showing headquarters and other locations of CGIAR centers. (Present as Figure 2 in Chapter 10)



Plate 5 ARS locations. (Present as Figure 1 in Chapter 11)

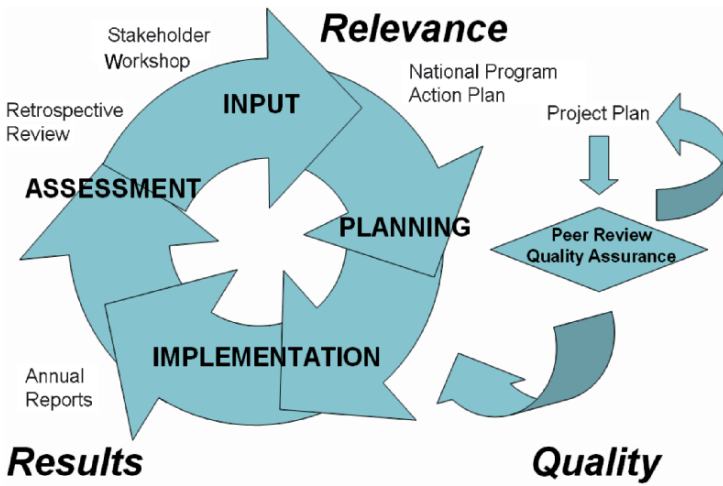


Plate 6 ARS 5-year research program cycle. (Present as Figure 2 in Chapter 11)

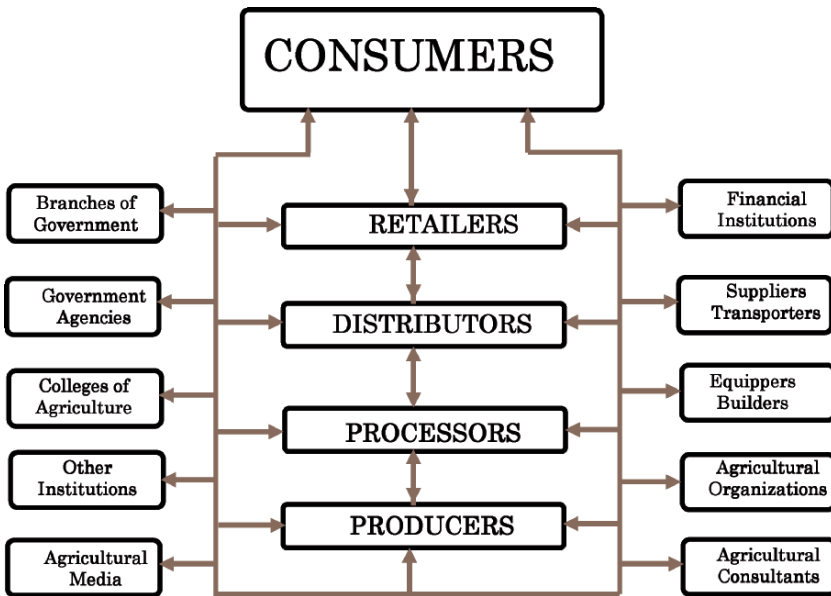


Plate 7 Diagram depicting the flow of products and information within the food and agriculture sector. (Present as Figure 1 in Chapter 12)

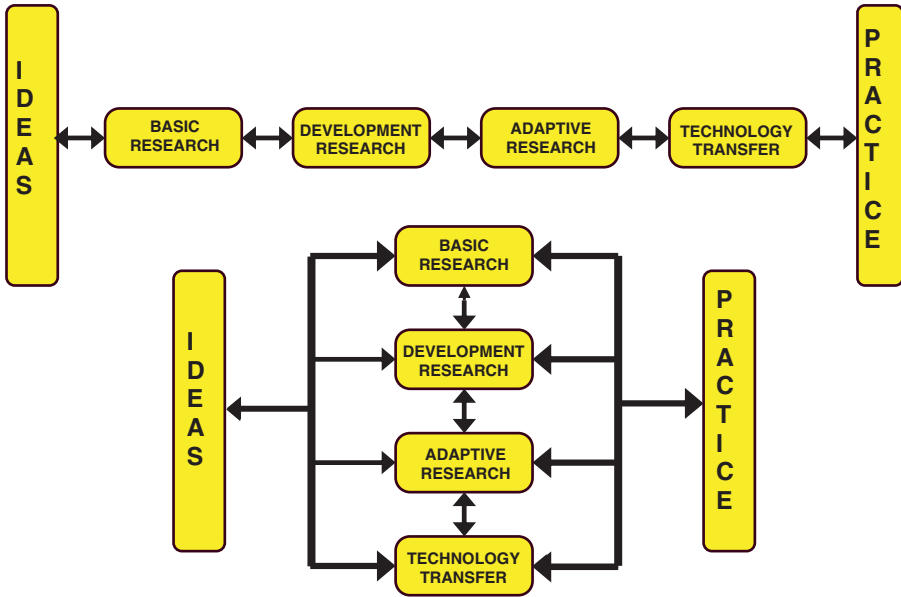


Plate 8 Two organizational paradigms of agricultural research. Upper diagram depicts linear organization of research and development (R&D) functions linking ideas to commercial practise. Lower diagram depicts parallel organization of R& D functions. (Present as Figure 3 in Chapter 12)

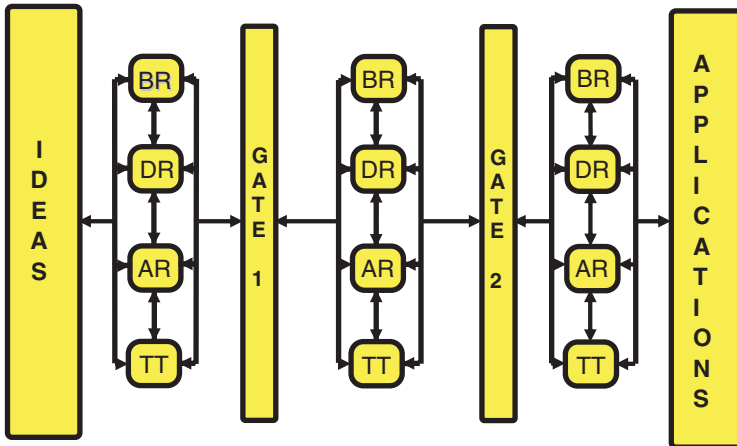


Plate 9 Diagram depicting the stage - gate paradigm of agricultural research organization. (Present as Figure 4 in Chapter 12)

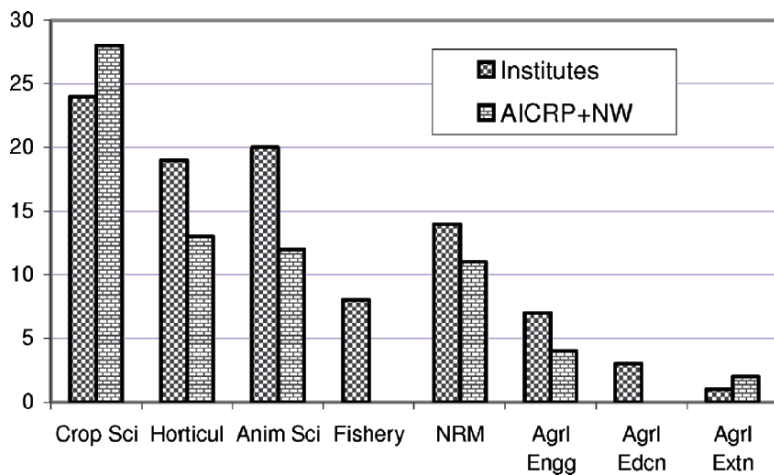


Plate 10 Number of institutes and coordinated research programmes under each division of the ICAR. (Present as Figure 3 in Chapter 16)

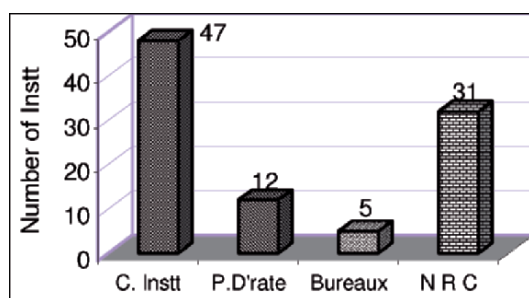


Plate 11 Profile of the research and educational institutes under the ICAR. (Present as Figure 4 in Chapter 16)

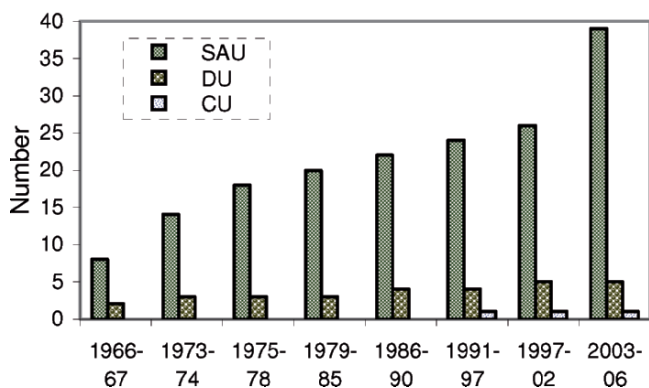
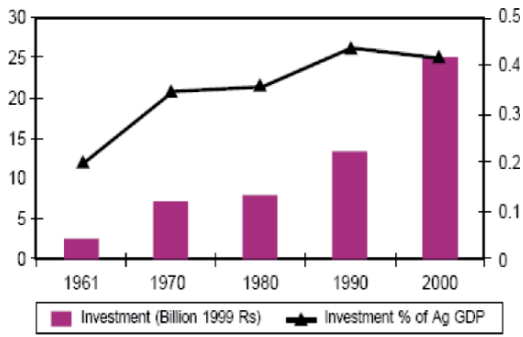


Plate 12 Growth of State Agricultural Universities, Deemed Universities and Central Universities in India. (Present as Figure 5 in Chapter 16)



Source: Pal, Mathur and Jha, 2005

Plate 13 Funding to Agricultural Research and Education in India during last four decades. (Present as Figure 6 in Chapter 16)