Exercise 11. Changing Structure of Agricultural Research and Its Implications for PGR

(group work)

This exercise seeks to familiarize participants with the rapidly changing structure of agricultural research and plant breeding in developing and developed countries and its effects on the utilization, access and conservation of plant genetic resources.

1. Form four groups of participants, each group elects a rapporteur. (5 minutes)

Phase 1. Group work (45 minutes)

2. Each group briefly discusses the text (handout 5.11.4) and works on ***one*** of the following questions. (40 minutes)

   Group A: Private investments in plant breeding tend to be highest in commercial crops where benefits can be appropriated. Why would private plant breeding corporations invest in noncommercial crops?

   Group B: Discuss and summarize the economic arguments in favour of public investment in conservation of PGR. Why are resources for PGR decreasing in practice?

   Group C: Why are investments in plant breeding and conservation of PGR in developing countries made mostly by the public sector? What are the natural domains of private versus public?

   Group D: How should the public and private sectors cooperate in order to (a) optimize investments in plant breeding and (b) increase support for conservation of PGR?

3. The rapporteurs compile their group's inputs on the worksheets. (handouts 5.11.6, 5.11.7, 5.11.8 and 5.11.9) and prepare a flip chart to present the group's results to the audience during the next phase. (5 minutes)

Phase 2. Reporting and discussion (50 minutes)

4. The rapporteurs present the results to the audience. Each group has five minutes to present its results. After each presentation, five minutes are available to discuss the group's

results. (40 minutes)

5. The trainer distributes handout 5.11.10 (practical considerations for exercise 11), facilitates a brief discussion, provides feedback on the content of the presentations and closes the session. (10 minutes)

Exercise 11. Worksheet – Handout 5.11.6

Group A

PLANT BREEDING INVESTMENTS

(a) Why would private plant breeding corporations invest in noncommercial crops?

Exercise 11. Worksheet – Handout 5.11.7
Group B

(a) Summarize economic arguments in favour of public investment in PGR conservation	(b) Why are resources for PGR decreasing in practice?

Exercise 11. Worksheet – Handout 5.11.8
Group C

(a) Why are investments in plant breeding and conservation of PGR in developing countries made mostly by the public sector?	**(b) What are the natural domains of public versus private?**

Exercise 11. Worksheet – Handout 5.11.9

Group D

HOW SHOULD THE PUBLIC AND PRIVATE SECTOR COOPERATE IN ORDER TO:

(a) Optimize investment in plant breeding?	**(b) Increase support for conservation of PGR?**

Practical Considerations for Exercise 11

(to be distributed after the exercise has been completed)

After doing this exercise, participants are familiar with the rapidly changing structure of agricultural research and plant breeding in developing and developed countries and its effects on the utilization of, access to and conservation of plant genetic resources.

General approach:

There are some clear differences in the levels of investment made in breeding, distribution and conservation of plant genetic resources in developing and developed countries. Human and financial resources, as well as the engagement of the private sector, have been much greater in the latter.

The private sector invests in agricultural research and plant breeding only if the benefit (in terms of money) from the investment is greater than its cost. To investigate the increasing role of the private sector, consider the factors that can increase the benefit side (e.g., increase in market size due to globalization, the development of intellectual property rights) and that can reduce the cost side (e.g., new technology). The public sector plays an important role in areas where the financial benefit is not large enough to cover the cost. This argument also applies to incentives to conserve and utilize plant genetic resources.

Take into account how intellectual property (patents and PBR) may have influenced investments and growth in agriculture. Also consider problems related to rural poverty in many developing countries and how this might have an impact on investments in agriculture.