

Management of Plant Genetic Resources Information in the Intellectual Property Regime: Some Issues and Strategies

R.C. Agrawal and Anuradha Agrawal
National Bureau of Plant Genetic Resources, New Delhi

SUMMARY

Plant Genetic Resources (PGR) consists of the diversity of genetic material contained in traditional varieties and modern cultivars grown by farmers, as well as wild relatives of crops and other wild plant species that can be used for food, feed, fibre, clothing, shelter, wood/timber, energy, etc. One of the major challenges for food security in the next generation is the effective management of PGR worldwide. Thus, documentation of PGR becomes very important at the national, regional and global levels for effective conservation of rapidly disappearing genetic stocks for possible future use and also for immediate utilization of already conserved and evaluated/characterized germplasm in the on-going crop improvement programmes. The documentation of information related to PGR is now having greater importance as India is a party to the Convention on Biological Diversity (CBD) and is also a signatory of the International Treaty on PGR for Food and Agriculture (ITPGRFA). The Global Plan of Action (GPA) represents an important contribution to the implementation of the CBD in the field of food and agriculture and it is one of the supporting elements of the ITPGRFA.

A network of National Information Sharing Mechanism (NISM) for PGR involving 114 stakeholders in India was initiated during the year 2005-06 to facilitate the actions required to be accomplished under the GPA. Many more initiatives have been taken in this regard by National Bureau of Plant Genetic Resources (NBPGR). In the present article, the sharing of PGR information under the international treaties has been discussed and reviewed.

Key words: Plant Genetic Resources, Information System, Convention on Biological Diversity, Global Plan of Action, International Treaty on Plant Genetic Resources.

1. INTRODUCTION

During the process of development of agriculture, human have identified, selected, tended and utilized the variation among and within plant species for food and other needs. This tangible diversity in plants has been recognized as an economic resource, similar to other natural resources as soil, water, oil and minerals and has been called as Plant Genetic Resource (PGR). PGR are defined as genetic material of plants which is of value for present and future generations of human beings and include total genetic diversity found among and within plant species (Dhillon and Agrawal 2004). This enormous diversity generated over the years helps in ensuring food security and provide a protection against future threats,

adversity and ecological changes. Traditionally, PGR include primitive forms, farmers' varieties, landraces, obsolete cultivars, modern cultivars, breeding lines and genetic stocks, wild and other related species. A subset of PGR are the plant genetic resources for food and agriculture (PGRFA) which is the diversity contained in traditional crop varieties, modern cultivars, crop wild relatives and other wild plants used for food, medicine, feed for domestic animals, fibre, clothing, shelter and energy. The PGRFA exclude the plants used for pharmaceuticals and other industrial products. Importantly, there is much greater inter-dependence among countries for PGRFA than for any other kind of biodiversity, and they are not distributed evenly throughout the world.

