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## **Message from the Chairman of Sri Lanka Council for Agricultural Research Policy**

Sri Lanka Council for Agricultural Research Policy (SLCARP) is the apex body for formulating Agricultural Research Policies and Priorities of Agricultural Research in Sri Lanka. It also prepares the National Agricultural Research Plan for the country and recommends to the government for funding. Council identifies Research Priority Areas based on the current needs of the country and appoints National Committees accordingly. Crop Improvement is one such priority area identified by the Council. The National Committee on Crop Improvement consisting of expertise in various sectors in Crop Improvement makes its contributions for better utilization of crop improvement for the enhancement of the agriculture sector.

The responsibility of setting priorities for Crop Improvement was assigned to the National Committee on Crop Improvement by the Council. The research priorities of crop improvement for each crop sector of the country were identified based on the information derived at the Workshop on “ Current Status and Future Directions in Crop Improvement Research in Sri Lanka” held in October 2016 with the participation of most senior Plant Breeders and other senior scientist from different disciplines and Private Sector organizations. Research Priorities for the future were identified after reviewing the programmes and advancements of the previous priorities and taking into consideration the future emerging challenges, particularly the impact of climate change on Agriculture and need recently

On behalf of the Council, I am pleased to thank the members of the National Committee on Crop Improvement for their valuable contributions to develop this priority document which will shape the agricultural research in this country. I am particularly thankful to Dr Padmini Giriagama, Secretary/Coordinator of the Committee representing the Council for documenting this information and making it available to the scientists of this country.

Dr S D G Jayawardena  
Chairman  
Sri Lanka Council for Agricultural Research Policy

## **Message from the Secretary**

### **Sri Lanka Council for Agricultural Research Policy**

The Sri Lanka Council for Agricultural Research Policy (SLCARP), the umbrella organization of the National Agricultural Research System (NARS) in the country, has formed a number of National Committees with the experts in relevant subjects, to look into the matters related to agricultural research of national and current importance. The National Committee on Crop Improvement is one such committee working on the research issues related to Crop Improvement to achieve desired goals according to the needs of the country.

Agricultural research plays an important role in achieving food security and ensuring higher and sustainable income for farmers. Identification and prioritization of national-level agricultural research thrusts are important steps in the process of agricultural research policy formulation to cater to the needs of the development of the agriculture sector in the country while ensuring rational allocation of human, physical and financial resources for agricultural research.

The setting of priorities for Crop Improvement was assigned to the National Committee on Crop Improvement by the Council. The research priorities of crop improvement for each crop sector of the country and the objectives for each priority with strategies and activities for achieving those objectives were identified based on the information gathered at the Workshop on “Current Status and Future Directions in Crop Improvement Research in Sri Lanka” held in October 2016 with relevant stakeholders.

On behalf of the Council, I take this opportunity to thank the members of the National Committee on Crop Improvement for their tireless efforts in developing this priority document. This will be very useful to the National Agricultural Research System and other stakeholders, particularly the emerging private sector investors. I am particularly thankful to Dr Padmini Girihagama, Secretary/Coordinator of the Committee representing the Council for documenting these research priorities and making those available to the scientists of this country.

Dr J D H Wijewardena  
Secretary  
Sri Lanka Council for Agricultural Research Policy

## **Message from the Chairman National Committee on Crop Improvement**

The agricultural policy direction of the government policy framework targets at realising the policy goals, inter-alia, achieving food security and ensuring high and sustainable income for farmers. Agricultural research plays an important role in this regard. The Sri Lanka Council for Agricultural Research Policy (SLCARP) has formed various National Committees representing various disciplines and the National Committee on Crop Improvement is one such committees working on the research issues related to the enrichment and conservation of crop genetic resources and their utilization for the genetic improvement of crop plants to achieve desired goals according to the needs of the country.

Crop genetic improvement or simply the crop improvement is the back bone of enhancing crop productivity. This is because history has taught us crop productivity enhancement without crop improvement is very marginal. The research thrust areas of crop improvement for each crop sector of the country and the objectives for each thrust with strategies and activities for achieving those objectives were identified based on the information gathered by the committee and validated with relevant stakeholders. The National Committee on Crop Improvement hopes that the present document will be useful to guide researchers/scientists in the NARS to undertake crop improvement research in a well-coordinated manner to come out with desired results and the policy makers and research managers to make decisions in rational allocation of resources for crop improvement research to achieve the government targets with maximally utilizing the available resources at a minimum cost.

Dr J M Senevirathne  
Chairman  
National Committee on Crop Improvement & Agronomy  
Sri Lanka Council for Agricultural Research Policy

## Preface

Research is the main source of technological innovations and is, thus, very important in strengthening the country's agricultural potential. It is only through continued agricultural technological breakthroughs that sustainable growth in agricultural productivity and hence the competitiveness of Sri Lanka's agricultural capability can be achieved or improved.

Application of Crop Improvement in Agriculture is the base of the crop productivity improvement. Thus, Sri Lanka Council for Agricultural Research Policy (SLCARP) has identified Crop Improvement as a thrust area for agricultural research and development.

In times of tightening national budgets as a result of structural adjustment requirements especially due to the impacts of the 30 years period of war, the need to make choices in Sri Lanka's publicly funded research is heightened. Prioritization of agricultural research activities results in the selection of the optimal research portfolio given the resource constraints. Thus, resources allocation based on identified research priorities will be more efficient, effective and responsive to the research system Objectives than when allocation of resources is not based on research priorities. The National Priorities in Crop Improvement Research were formulated based on the information gathered at the Workshop on "Current Status and Future Directions in Crop Improvement Research in Sri Lanka" held in October 2016.

On behalf of the National Committee on Crop Improvement, I am pleased to thank the members of the National Committee on Crop Improvement in assisting to develop the present priority document. The special thank should go to Dr. S Abeysiriwardene, Senior Consultant (Research), CIC Agribusinesses, for taking part in reviewing and editing the present document with valuable suggestions. The information produced in the present document will be very useful to the National Agricultural Research System and other stakeholders, particularly the emerging private sector investors to focus attention on priority research areas in Crop Improvement and allocation of funds by the government and other funding agencies as well.

Dr. Padmini C Giriagama  
Secretary/Coordinator  
National Committee on Crop Improvement & Agronomy  
Sri Lanka Council for Agricultural Research Policy

## Abbreviations

DNA	Deoxyribo Nucleic Acid
DUS	Distinctness, Uniformity and Stability
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
MAS	Marker – Assisted Selection
NARS	National Agricultural Research System
NCCI	National Committee on Crop Improvement
NCCIA	National Committee on Crop Improvement & Agronomy
NCPBB	National Committee on Plant Breeding and Biotechnology
QTL	Quantitative Trait Loci
R & D	Research and Development
SLCARP	Sri Lanka Council for Agricultural Research Policy
TCP	Technical Cooperation Project



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