



Memorandum of Agreement

between

World Vegetable Center (WorldVeg)

(Legal name: Asian Vegetable Research and Development Center)

and

Indonesian Agency for Agricultural Research and Development (IAARD), Ministry of Agriculture, Republic of Indonesia

regarding membership of the

International Mungbean Improvement Network (IMIN)

6 September 2019

Bangkok, Thailand

1 Background

- 1.1 The World Vegetable Center (WorldVeg) has conducted mungbean improvement research since 1972 when it identified mungbean as a priority legume to increase protein consumption among Asia's poor populations. The unconditional sharing of improved and unimproved germplasm between countries in Asia has been at the basis of the success. WorldVeg developed improved breeding lines in close partnership with research organizations in Asia and the resulting varieties currently dominate mungbean production in many countries in Asia.
- 1.2 The International Mungbean Improvement Network was established in 2016 with funding support from the Australian Centre for International Agricultural Research (ACIAR). The initial focus of the network was on the evaluation of a mungbean minicore collection to strengthen mungbean breeding programs in India, Myanmar, Bangladesh and Australia. Recognizing the strong interest of other organizations, the members have decided to extend the network membership to other countries in Asia and Africa.
- 1.3 The objective of the International Mungbean Improvement Network is to improve food and nutrition security of the population and income of farmers in Asia, Africa and Australia through the introduction of resilient, locally-adapted and high-yielding mungbean varieties and associated good agricultural practices and the creation of diverse and stable market opportunities that benefit producers and consumers alike.
- 1.4 This objective is achieved by strengthening the capacity of local mungbean research and development organizations in Asia, Africa and Australia by facilitating the exchange of germplasm (gene bank accessions, breeding lines and varieties) , good agricultural practices, mungbean processing technologies, and the general sharing of knowledge and experiences in mungbean. A partnership of public research organizations and private sector partners is recognized as an important aspect to achieve impact at scale.
- 1.5 Members of the International Mungbean Improvement Network agree that international collaboration in mungbean research and development can bring significant benefits to advancing the research of each separate country.
- 1.6 As the network is led by the World Vegetable Center, an international non-profit research and development organization with a mandate for mungbean, it was decided by the members that World Vegetable Center should continue to coordinate and expand the network accordingly.

2 Membership

- 2.1 Any private or public sector organization with an interest in mungbean research and development is eligible to join the International Mungbean Improvement Network if it endorses the Principles of Cooperation as attached in this Memorandum of Agreement.
- 2.2 The duration of this Agreement shall be from the date on which the last party signs it until 31 December 2024. The Agreement can be extended, through a new agreement or by way of an exchange of letters, if both parties deem it as beneficial.
- 2.3 Either party may terminate this agreement at any time subject to giving at least 3 months' prior written notice of such termination to the other party.

3 Responsibilities of World Vegetable Center

- 3.1 World Vegetable Center genebank accessions and breeding lines are global public goods. Small quantities of seed can be obtained upon request. Seed distribution policy is explained at: <https://avrdc.org/seed/seeds/>.
- 3.2 The transfer of germplasm and improved breeding lines from the World Vegetable Center is subject to the Standard Material Transfer Agreement (SMTA) of the International Treaty on Plant Genetic Resources for Food and Agriculture or World Vegetable Center's own Material Transfer Agreement, as the case may be. The World Vegetable Center charges recipients a nominal fee for handling and seed shipments.
- 3.3 World Vegetable Center will work to ensure that its mungbean breeding program is aligned with the long-term interest of the members of the International Mungbean Improvement Network. However, it is recognized that the breeding program cannot contribute to all breeding objectives of the members.
- 3.4 World Vegetable Center will take the lead in organizing the annual workshop of the International Mungbean Improvement Network with inputs from all members.
- 3.5 World Vegetable Center will endeavour to maintain a bi-annual newsletter for the members of the International Mungbean Improvement Network. Currently, a newsletter known as "Mung Central" serves this purpose and is supported by the Australian Centre for International Agricultural Research.

4 Points of Contact

4.1 Each member organization will appoint a point of contact and an alternate point of contact for this network and inform the World Vegetable Center about any changes in these points of contact.

4.2 The Points of Contact for World Vegetable Center are:

Primary point of contact:

Dr. Ram Nair

Global Legume Breeder

Email:

ramakrishnan.nair@worldveg.org

Alternate point of contact:

Dr. Pepijn Schreinemachers

Flagship Program Leader for Enabling Impact

Email:

pepijn.schreinemachers@worldveg.org

4.3 The Points of Contact for IAARD, Ministry of Agriculture, Republic of Indonesia are:

Primary point of contact:

Name : Dr. Fadjry Djufry

Position title : Director General of IAARD

Email: dfadjry@yahoo.com

Alternate 1 point of contact:

Name : Dr. Haris Syahbuddin

Position title : Director of ICFORD

Email: puslitbangtan@gmail.com/

kerjasamapuslitbangtan@ymail.com

Alternate 2 point of contact:

Name : Dr. Yuliantoro Baliadi

Position title : Head of ILETRI

Email: yuliantorobaliadi@yahoo.co.id/

kslitbang@gmail.com

5 Scope of the Collaboration

5.1 Members of the International Mungbean Improvement Network will use the network to share knowledge and will make a collective effort to build projects on the network. Common areas of interest are:

- (a) Germplasm collection and conservation
- (b) Breeding methods
- (c) Biotechnology research
- (d) Nutrition and nutrient content of varieties
- (e) Mungbean uses in food processing and non-food industry
- (f) Data management and statistics to support plant breeding research
- (g) Good agricultural practices including the development of manuals
- (h) Integrated pest and disease management including the development and

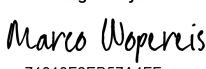
commercialization of biocontrol products

- (i) Seed production
 - (j) Agricultural machinery including suitable small-scale combine harvesters
 - (k) Mungbean storage methods
 - (l) International trade in mungbean and mungbean products
 - (m) Other legumes such as black gram, grain soybean, vegetable soybean, vegetable cowpea, and yard long bean
 - (n) Capacity building of young scientists in mungbean research
- 5.2 Special projects should ideally include multiple countries, although it is recognized that some projects may only include a selection of countries to match the geographical focus of funding agencies.


6 Intellectual Property

- 6.1 Members of the International Mungbean Improvement Network agree to follow international arrangements with regard to the transfer and use of genetic resources including the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and Convention on Biological Diversity (CBD) and the Agreement on Trade-Related Aspects of Intellectual Property Rights.
- 6.2 Data generated by members pursuant to activities of the International Mungbean Improvement Network shall be shared within the network and deposited into a common repository owned and managed by World Vegetable Center, with attribution to all members with SMTA document.
- 6.3 Publications involving work of the network shall, whenever possible and appropriate, be authored collectively or jointly. All publications shall acknowledge (where relevant) the contribution of the funding organisations, the participating institutions, and the scientists involved.

AGREED by the Parties through their authorized representatives on the date specified below:

DocuSigned by:

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Dr. Marco C.S. Wopereis
Director General
World Vegetable Center

Date: 12/15/2019


Name : Dr. Fadjry Djufry
Position title : Director General of IAARD
Indonesian Agency for Agricultural
Research and Development, Ministry of
Agriculture, Republic of Indonesia
Date: 5 December 2019

Annex – Principles of Cooperation

1. Membership of the International Mungbean Improvement Network is free of charge. However, members are expected to provide their own travel funds to participate in workshops or meetings.
2. Network members agree to share performance data about World Vegetable Center breeding lines or any other breeding lines or varieties obtained through the network.
3. The benefits of the network depend largely on the open sharing of knowledge, experiences and technologies by all its members. Members of the International Mungbean Improvement Network therefore pledge:
 - (a) to regularly participate in the annual meetings of the network;
 - (b) to share any information of relevance to the network, through email or through the biannual newsletter “Mung Central”;
 - (c) to inform the network of any new varieties released by their organization and the characteristics of these varieties; or any new agronomic practices or processing technologies developed and tested;
 - (d) to be responsive to information requests by members of the network;
 - (e) to contribute to joint project proposal development and joint publications and to share fundraising opportunities;
 - (f) to share genetic resources such as genebank accessions, breeding lines and released varieties; and
 - (g) to promote the network to stakeholders and donors.
4. It is recognized that the sharing of genetic resources may be subject to national laws and regulations or internal policies of an organization. While abiding by these rules, each member will take the greatest effort to share its genetic resources when requested by another member of the network. The cost of seed shipment should be borne by the requester.
5. Network members agree to consider hosting the annual meeting of the International Mungbean Improvement Network. Organizing this meeting in a different location each time will benefit international cooperation.
6. Network members agree to actively pursue funding opportunities for special projects built on the network or linked to the network.