

MEETING REPORT

## Expert Consultation Workshop on “Global Conservation Strategy for Crops in the Cucurbitaceae Family”

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An expert consultation workshop on “Global Conservation Strategy for Crops in the Cucurbitaceae Family” was held at the World Vegetable Center, East and Southeast Asia, Research and Training station, Kasetsart University, Kamphaeng Saen Campus, Nakhon Pathom, Thailand during 11-13 December, 2019 with the following objectives:

- To consult experts to validate and contribute to a global conservation strategy for cucurbit crops.
- To prioritize actions to improve the conservation and use of the genetic resources of cucurbit crops.

The expert consultation was organised by Crop Trust (Germany) in collaboration with World Vegetable Center (World Veg), Taiwan. The workshop was attended by 19 participants from 13 countries including Bangladesh Agricultural Research Institute (BARI); Spanish National Research Council (CSIC); Crop Trust, Germany; Tropical Agricultural Research and Higher Education Center (CATIE), Costa Rica; University of KwaZulu-Natal (UKZN), Benin; United States Department of Agriculture (USDA); Chinese Academy of Agricultural Sciences (CAAS); ICAR-National Bureau of Plant Genetic Resources (NBPGR), India; Centre for Genetic Resources (CGN), Netherland; National Autonomous University of Mexico (UNAM); World Vegetable Center (World Veg), Taiwan; East and Southeast Asia, Research and Training Station, Thailand; Tropical Vegetable Research Center (TVRC), Kasetsart University, Thailand. The seed industry was represented by Rijk Zwaan-Spain, Chia Tai-Thailand and East West Seed-Philippines. The participants comprised of cucurbits crop conservation experts/genebank managers/breeders/researchers from public and private sector.

The workshop included Technical Session, Plenary Session, Working Group Discussion and visits to field and farm. The technical sessions focused on

1. Scope of global conservation strategies
2. Background on Cucurbitaceae crops (number of crops, uses, taxonomy, centers of origin/diversity eco-geographic information on the crop and their wild relatives)
3. Report on online survey conducted in 28 Genebanks
4. Conservation status of Cucurbitaceae crop genetic resources (4 Speakers)
5. Status and future priorities for germplasm screening, characterization and evaluation, use perspective & update from cucurbit breeders (5 Speakers)
6. Working group discussion and presentation (4 Groups)
7. Plenary discussion on current status of conservation, diversity tree, gaps, vulnerability, threats to genetic diversity, data availability, accessibility and policy issues.

The workshop provided a wonderful platform for exchange of knowledge with respect to global genebank collections, conservation status, maintenance and management issues related to regeneration of cucurbit genetic resources. The meeting was much useful in prioritizing conservation actions and targets of genebanks; identifying the collection gaps; with priority for wild relatives, land races and primitive cultivars from the center of origin/primary region of diversity; collection from extreme environments; areas for pest and disease resistance; extending support to genebanks for regeneration/multiplication; improve science on seed conservation for *Cucurbita*– e.g. Resolve seed borne disease issues (major issue for USDA, World Veg Center); Safety duplication of important collections; Centralized information system for genebanks; Resolve the issues/challenges with respect to phytosanitary requirements and different policies at country level,



**Participants of expert consultation workshop on “Global conservation strategy for crops in the Cucurbitaceae family” held at World Vegetable Center, East and Southeast Asia Office, Kasetsart University, Thailand**

which restrict the exchange of germplasm; Seed indent to be made easier through online information systems. The participants of the workshop emphasized the need for more international cooperation to work across regions of diversity; develop conservation teams for exploration in these countries with the help of donors like USDA, Crop Trust, etc. This effort should aim at collection and evaluation in the host country and sharing the germplasm with the international community. Most of the participants were of the opinion that there is a need to strengthen the public-private partnership or

collaboration in breeding/regeneration/research activities and also to establish storage facilities to maintain the genetic resources. It was decided that more meetings will be conducted for developing new conservation strategy not only in the Cucurbitaceae crops but also in *Brassica* crops, groundnuts, eggplants, Citrus, peppers/chillies, sunflowers, peas and temperate forages. The development of new conservation strategy will act as living documents that will be actively used to guide conservation efforts by all relevant stakeholders.