

Plant Breeding and Genetics Society of Nepal (PBaGSoN) 2019

बाली प्रजनन तथा अनुवंश विज्ञान समाज नेपाल (पिबागसन) २०७६



Khumaltar, Lalitpur, Nepal (खुमलटार, ललितपुर, नेपाल)

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To
The Secretary, MoALD
The Executive Director, NARC
The Dean, IAAS

Dear Sirs,
Namaskar!

The Society organized an Interaction Program on Artificial Intelligence (AI) and Intellectual Property Rights (IPR) – specifically Plant Variety Protection & Farmers' Rights (PVP&FR) – in Genetics, Plant Breeding, and Seed Science on 30 Shrawan 2082 at Khumaltar. Based on the interactions and group discussions during the program, the Society has made the following recommendations for advancing agriculture in the country:

AI

- At least 3-5 researchers should be trained
- Potential application areas of AI need to explore and share among the researchers
- Interaction and awareness program should be organized along with action plans
- Start with pilot projects – eg, image-based disease scoring in rice/wheat nurseries and seed purity checks.
- Digitize data collection – use mobile apps/drones for consistent field and seed data instead of paper notes.
- Adopt open-source tools – like PlantCV, Breedbase, and Python/R packages for genomic selection.
- Standardize data formats – follow global standards (MIAPPE, BrAPI) so data is reusable and sharable.

PVP&FR

- PVP&FR is very important and need to speed up or the approval
- Revise as per the national, provincial and local needs and in favor of native technologies
- MoALD should be the focal ministry
- Adopt a balanced PVP law – align with international frameworks (like UPOV or TRIPS) but adapt to Nepal's local context and Constitution to protect both breeders and farmers.
- Ensure fair benefit-sharing – create mechanisms so breeders and companies share profits when they use landraces or traditional varieties in new varieties.

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- Affordable access to improved seed – prevent monopolies by requiring seed companies to make protected varieties reasonably accessible to smallholders.
- Strengthen national capacity – train staff at NARC, DoA, and seed certification bodies on PVP procedures, farmers' rights, and biodiversity management.
- Awareness and education – run farmer-level outreach so communities understand their rights under PVP, how to register traditional varieties, and how to access benefit-sharing schemes.
- Establish dispute resolution mechanisms – create simple, farmer-friendly legal procedures for conflicts over seed rights, mislabeling, or misuse of traditional knowledge.
- Widen the scope of FR towards crops, livestock, forage, agro-insects, agro-microbes and aquatic AGRs and traditional knowledge

We expect your consideration for use of AI and promoting PVP&FR.

Sincerely,

Bal Krishna Joshi
President