

India's National Gene Bank and Doomsday Vault Syria Scare Spurs Work on over 4.5 lakhs Samples of Plant Genetic Resources

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• India scouts for an alternative site to keep duplicates of 4.44 lakh samples of its plant genetic resources.

• These samples are kept in National Gene Bank in New Delhi.

• Backup is needed to avoid risk of losing all preserved genetic resources if NGB faces threat of being destroyed—be it in war or due to natural calamities.

• Over 50 countries keep duplicate samples in highly secure Svalbard Global Seed Vault (SGSV) in Norway.

• India has kept 25 samples of pigeon pea (Arhar) in SGSV—a so called 'Doomsday vault'.

• India will deposit more samples of different plant species in SGSV next year.

• India too has its own version of 'Doomsday vault' in Himalaya. It is located in Chang-La near Leh.

• A very small unit preserving over 5,000 samples is maintained by DRDO, defence ministry.

In the midst of fierce hostilities, an international gene bank, some 32 km south of Aleppo (Syria) has survived. It will remain unclear if the Islamic State is aware of its significance or just felt it unworthy of its attention. But it did prompt Indian agriculture scientists to begin work on a backup for India's national gene bank, even if a Syria-type situation is not apprehended.

Scientists managing India's national gene bank in New Delhi discussed the proposal within the National Bureau of Plant Genetic Resources (NBPGR) to look at an option of setting up a second secure centre at a suitable location to store 'duplicates' of over 4.44 lakh samples of plant genetic resources—an invaluable slice of biodiversity.

At present, these samples are kept in the highly secure National Gene Bank (NGB) in the capital maintained by the NBPGR—an arm of the Indian Council of Agricultural Research (ICAR). The state-of-the-art gene bank, to which access is given, is the second largest in the world in terms of samples of diverse plant genetic resources.

Though scientists don't envisage a civil war, they feel the need to prepare for a "black swan" event such as a natural disaster that may threaten the high value facility. Though a dramatic illustration, war-torn Syria, popped up during a meeting that decided to replicate the genetic storehouse at another location.

"Efforts are being made to set up a second secure center—similar to what we have in New Delhi which was noti-

fied as National Gene Bank 20 years ago," said Kuldeep Singh, director of the NBPGR.

He said, "We cannot afford to lose samples which have been preserved for years for future food security. An alternative center to keep duplicates of all the samples of our plant genetic resources is required."

NGB consists of a seed gene bank, cryogene bank and in-vitro gene bank facilities with a large storage capacity for samples of seeds, pollen or in-vitro cultured germplasms for long term (40-50 years) as well as medium term (5-10 years) conservation. The genetic resources, collected through 10 regional centres and local agricultural universities and also sourced from gene banks of other countries are kept to salvage lost varieties of crops in future.

India has also kept some of its samples in safe custody at SGSV in Norway. But all samples cannot be kept abroad for strategic reasons. So, India is looking for a second secure vault where it can keep duplicates of all samples. At present, India has a very small experimental facility at Chang-La in the Himalaya—maintained by the DRDO of the defence ministry.

Precious germplasms need to be preserved for use in future if existing ones are destroyed due to natural disasters, pests, climate change, environmental degradation and urbanisation. These preserved genetic resources would then help future crops withstand floods, disease or drought and conserve biodiversity.

Donkey Cheese Priciest in the World

Donkey cheese is becoming a new diet craze. It costs £ 880 (Rs 75,175) per kilo making it the most expensive cheese in the world.

Produced by just one farm in Serbia, it is exceptionally high in protein, calcium and omega 3 fatty acids that are extremely good for the heart. Those who have tried it, say it tastes sweet and nutty, like a Manchego cheese.

And tennis star Novak Djokovic bought up the entire world's supply of it for a new restaurant chain he opened in 2013, reports the *Mail Online*.