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South Asia Biosafety Program

NEWSLETTER FOR PRIVATE CIRCULATION ONLY – NOT FOR SALE

INDIA

Federation of Seed Industry of India (FSII) 9th Annual General Meeting and Conference: Lab to Land – Making Seed Business Easier, Faster, and Smarter

Surabhi Jajodia, Communications Manager, Federation of Seed Industry of India (FSII)

Group photo of speakers and participants at the Federation of Seed Industry of India (FSII) 9th Annual General Meeting and Conference (26 September 2025).

The Federation of Seed Industry of India (FSII) concluded its 9th Annual General Meeting (AGM) on 26 September 2025 in New Delhi, which was accompanied by a high-level "Knowledge Day Conference" on the theme "Lab to Land: Making Seed Business Easier, Faster, and Smarter." A key highlight of the event was the launch of a major sectoral report titled *Ease of Doing Business in the Indian Seed Industry: Unlocking Growth Through Holistic Policy Reforms*.

The report underscores that India's ₹30,000-crore seed industry stands at a pivotal moment where progressive regulatory modernization can catalyze large-scale value creation for farmers, seed companies, and the national agri-innovation ecosystem. According to FSII, policy inefficiencies—particularly delays in licensing, fragmented state requirements, and repetitive varietal testing—currently cost the industry over ₹300 crore annually, disproportionately affecting small and medium seed enterprises.

Adopting reforms, such as a unified "One Nation, One License" framework, digitization of approvals, and alignment of central and state processes, could save the industry ₹382–708 crore every year. More importantly, this shift would enable seed companies to introduce 3-5 new varieties annually, accelerate time-to-market for improved traits, and increase research investment by 13-15%. Such outcomes would diversify crop genetics, strengthen India's climate resilience, and directly benefit farmers through improved yields, reduced losses from pests and diseases, and greater technology choice.

Speakers, including regulators and scientists, reaffirmed that innovation-driven seed development requires a robust and reliable intellectual property system, faster processing timelines, and stronger public-private collaboration.

Speakers, including regulators and scientists, reaffirmed that innovation-driven seed development requires a robust and reliable intellectual property system, faster processing timelines, and stronger public-private collaboration. Initiatives like SATHI and evolving policy frameworks—including efforts to integrate key acts and advance the draft Seed Bill—signal positive momentum toward this transformation. If implemented effectively, FSII estimates that reforms could help India expand its share in the global seed trade from 1% today to nearly 10% by 2035, while generating jobs and improving farm incomes nationwide.

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Speakers at the FSII 9th Annual General Meeting and Conference (26 September 2025).

There were discussions regarding the need for commercializing innovative technologies, such as genetically engineered and gene edited plants with improved traits in a timely manner. Dr. Bhavneet Bajaj and Dr. Vibha Ahuja from the South Asia Biosafety Program participated in the event.

LINK

Access the FSSI Report at:
https://fsii.in/ease-of-doing-business-in-the-indian-seed-industry/

Launch of the FSII report Ease of Doing Business in the Indian Seed Industry: Unlocking Growth Through Holistic Policy Reforms (26 September 2025).

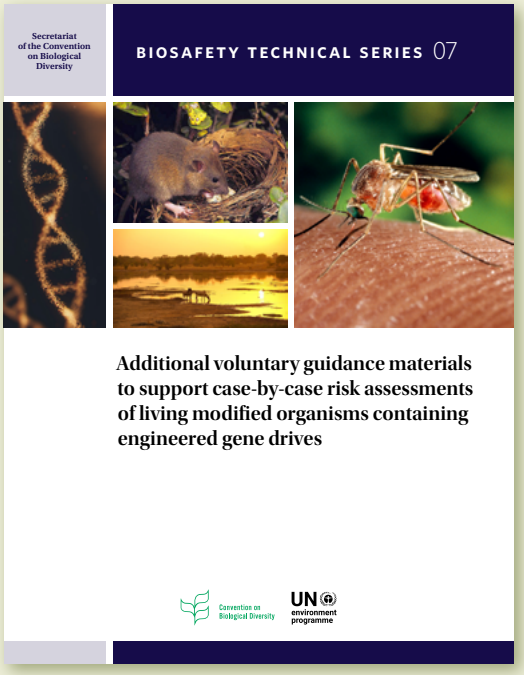
RESOURCE

Launch of the Secretariat of the Convention on Biological Diversity's Biosafety Technical Series 07: Additional Voluntary Guidance Materials to Support Case-By-Case Risk Assessments of LMOs Containing Engineered Gene Drives

Dr. Arlene Asthana Ali, Senior Project Executive, Biotech Consortium India Limited

During the Twenty-Seventh Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), held from 20-24 October 2025 in Panama City, the Secretariat of the Convention on Biological Diversity (SCBD) launched *Biosafety Technical Series 07* on additional voluntary guidance materials to support case-by-case risk assessments of living modified organisms (LMOs) containing engineered gene drives. LMOs containing engineered gene drives are envisaged for crucial public health and conservation purposes, from tackling vector-borne diseases, such as malaria, or bolstering disease resistance in threatened species, to addressing invasive alien species–one of the major drivers of global biodiversity loss.

For tapping the potential of LMOs containing engineered gene drives, it is important to reconcile these biotechnological innovations with the precautionary approach and other provisions of the Cartagena Protocol on Biosafety. Rigorous environmental risk assessment as fostered by these additional voluntary guidance materials is key. The goal of the guidance materials is to equip decision-makers with the information they need regarding the potential adverse effects that the release of LMOs containing engineered gene drives might have.



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Biosafety Technical Series 07 is based on *Annex III to the Cartagena Protocol* and aims to strengthen the risk assessment provisions of the Protocol, while also building upon seminal work by the World Health Organisation, the Organisation for Economic Co-operation and Development and the European Food Safety Authority, as well as over 300 scientific publications.

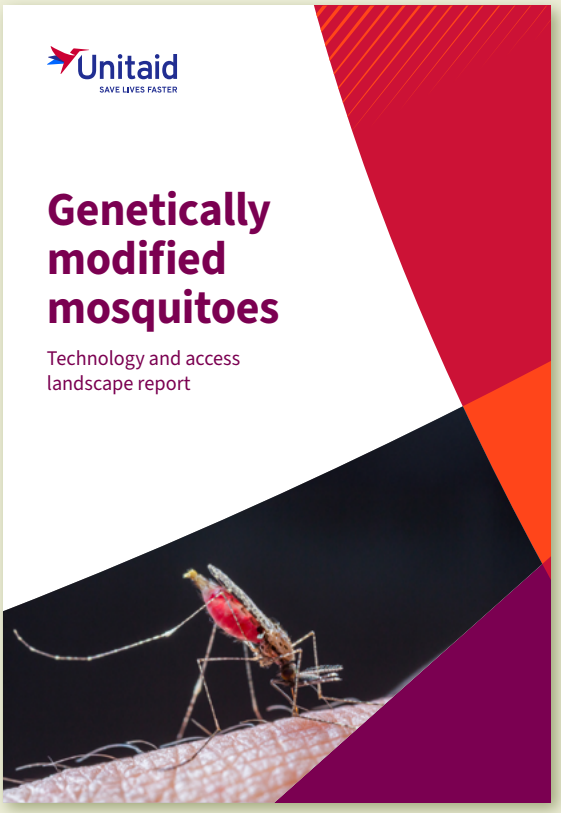
Biosafety Technical Series 07 also crowns the process initiated under the Cartagena Protocol for the identification and prioritization of specific issues of risk assessment of LMOs that may warrant consideration (decision CP-9/13). This publication builds on the foundational work of the "Study on Risk Assessment: Application of Annex I of decision CP-9/13 to Living Modified Organisms containing Engineered Gene Drives" and the report of the 2020 meeting of the Ad Hoc Technical Expert Group on Risk Assessment. As such, it illustrates the ability of processes established under the Protocol to adequately meet the needs and priorities expressed by the Parties.

Access *Biosafety Technical Series 07* at:
https://bch.cbd.int/protocol/cpb_technicalseries.shtml

RESOURCE

Unitaid's Technology and Access Landscape Report on Genetically Modified Mosquitoes

Dr. Arlene Asthana Ali, Senior Project Executive, Biotech Consortium India Limited



Mosquitoes are the world's deadliest animals, responsible for more than 700,000 deaths worldwide each year. While malaria accounts for most of these deaths, other mosquito-borne diseases, such as dengue, chikungunya, yellow fever, or Zika, are spreading rapidly, putting millions of people at risk. Genetic modification of mosquitoes that reduces their population size or inhibits their ability to transmit parasites and viruses could offer new ways of protecting people from mosquito-transmitted diseases.

Rising temperatures are expanding mosquito habitats into new regions. This year alone, mosquitoes were detected in Iceland for the first time, and *Aedes aegypti*–the species that carries dengue, chikungunya, and Zika–was found in the United Kingdom. These developments underscore how a warming climate is helping mosquito-borne diseases spread to areas previously unaffected.

Paired with funding constraints and growing resistance to insecticides and antimalarial medicines, these challenges threaten to reverse hard-won progress against malaria. Meanwhile, countries are also struggling to contain an increasing burden of dengue and other mosquito-borne diseases and have few proven tools to combat a growing crisis. Without new tools, hundreds of millions of people will face an increasing risk of infection from mosquito-borne diseases.

Unitaid's *Genetically Modified Mosquitoes (GMM) Technology and Access Landscape Report* draws attention to the intersection of climate and health, and the importance of innovation in protecting communities from the growing threat of mosquito-borne diseases.

The report explores the potential of genetically modified mosquitoes as a new tool to reduce the burden of vector-borne diseases. It outlines access challenges and opportunities to overcome them, offering pathways to further explore how genetically modified mosquitoes could contribute to the fight against malaria and other mosquito-borne diseases.

Genetic modification is not a new technology–it has been widely used in agriculture for decades–but its application to public health has progressed more slowly and is now reaching a pivotal moment. The first releases of genetically modified mosquitoes targeting dengue and malaria have already taken place, and field trials to assess potentially more effective technologies are planned.

"Existing vector control interventions face limits. Providing alternatives that close coverage gaps and tackle the biological threats of insecticide resistance and invasive, adaptable vectors, is essential to maintain progress in the fight against vector-borne diseases," said Jan Kolaczinski, Unitaid's Senior Technical Manager for malaria. "Genetically modified mosquitoes, like any other new technology, need to be comprehensively evaluated to determine their potential role in the vector control toolbox.

Unlike other vector control measures, such as indoor residual spraying or insecticide-treated mosquito nets, genetically modified mosquitoes do not rely on changes in individual behavior, like allowing spray teams to enter one's house or remembering to use a mosquito net each night, to be effective. Releases of genetically modified mosquitoes, however, require broad community acceptance to mitigate fears and combat misinformation. When such buy-in is achieved, these mosquitoes may provide protection to entire communities. Recent successes include the release of Wolbachia-infected mosquitoes in Niterói, Brazil, which are not genetically modified but carry a bacterium that reduces their ability to transmit dengue. This intervention, which averted an estimated three-quarters of the dengue case burden that may otherwise have been expected, illustrates the potential of biological approaches to reduce disease transmission.

Access the report at:
https://unitaid.org/uploads/Genetically-modified-mosquitoes-technology-and-access-landscape.pdf

CALENDAR OF EVENTS

EVENT	ORGANIZED BY	DATE	WEBSITE
INDIA			
Hands-on Training on Molecular Breeding for Crop Improvement-2025	Tamil Nadu Agricultural University	3-4 December 2025 Coimbatore	https://tnau.ac.in/news-2/
40th Annual Conference and National Symposium of the Indian Poultry Science Association (IPSACON 2025)	ICAR-Directorate of Poultry Research	9-11 December 2025 Hyderabad	https://www.ipsacon2025.com/
Hands on Training in Plant Tissue Culture Techniques	Tamil Nadu Agricultural University	9-12 December 2025 Coimbatore	https://tnau.ac.in/news-2/
6th International Conference on Plant Physiology – 2025	Tamil Nadu Agricultural University and Indian Society for Plant Physiology	15-18 December 2025 Coimbatore	https://tnau.ac.in/news-2/
Capacity Building Programme: Harnessing Genomic Resources for Augmenting Germplasm Evaluation and Utilization for Sustainability and Climate Change Mitigation	ICAR-National Bureau of Plant Genetic Resources	6-15 January 2026 New Delhi	https://nbpgr.org.in/nbpgr2023/
National Conference on Advances in Breeding to Harness Multiple Biotic Stress Resistance in Major Field Crops (Bioresbred-2026)	University of Agricultural Sciences, Dharwad	1-3 February 2026 Dharwad	https://uasd.edu/en/
Training Programme on Emerging Plant Health Issues and their Management under Changing Climate Scenario	Centre of Advanced Faculty Training, Department of Plant Pathology, G.B. Pant University of Agriculture and Technology	6-26 February 2026 Pantnagar	https://www.gbpuat.ac.in/
National Conference on Pulses, Plant and People: Sustainable Livelihood and Nutritional Security under Changing Climate Scenario	Indian Society of Pulses Research and Development (ISPRD), ICAR-Indian Institute of Pulses Research (IIPR) and Indian Council of Agricultural Research (ICAR)	10-12 February 2026 Kanpur	https://www.icar-iipr.org.in/
INTERNATIONAL			
2025 Gene Drive Research Forum	Foundation for the National Institutes of Health (FNIH)	2-4 December 2025 Accra, Ghana	https://fnih.org/
Thirteenth Meeting of the Informal Advisory Committee on the Biosafety Clearing-House	CBD Secretariat	9-11 December 2025 Montreal, Canada	https://www.cbd.int/meetings?thm=CPB

The South Asia Biosafety Program (SABP) is an international development program implemented in India and Bangladesh by the Agriculture & Food Systems Institute (AFSI). SABP aims to work with national governmental agencies and other public sector partners to facilitate the implementation of transparent, efficient, and responsive regulatory frameworks for products of modern biotechnology that meet national goals as regards the safety of novel foods and feeds, and environmental protection.

SOUTH ASIA BIOSAFETY PROGRAM

Agriculture & Food Systems Institute

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