

BIO SAFETY



जहाँ है हरियाली।
वहाँ है खुशहाली।।

A Quarterly
Newsletter

Newsletter



From the Desk of Editor

It is heartening to note the completion of 10 years of the Cartagena Protocol on Biosafety (CPB) on September 11, 2013. All the more because this important milestone is happening during India's COP Presidency. To celebrate this occasion, the Secretariat to the Convention on Biological Diversity (SCBD) has released a video-clipping highlighting the 10 year achievements. I invite you as the CoP president to use this video-clipping to enhance awareness on the biosafety protocol. The SCBD as well Parties to the Protocol across the world including the Ministry of Environment & Forests (MoEF) is also planning activities to mark this occasion. The anniversary celebrations shall continue upto September 10, 2014 and the theme of the anniversary is "10 Years of Promoting Safety in the Use of Biotechnology". I invite readers to share this information within their organizations and plan programs, events or activities to commemorate this occasion. A special logo and poster has been designed by the SCBD, which can be used while undertaking such activities.

Being the nodal Ministry for the CPB, MoEF will extend support in providing information for undertaking such activities. Let us all join hands for anniversary celebrations for ensuring biosafety in biotechnology. Readers are also requested to share such information with us for inclusion in the upcoming issues of the Biosafety Newsletter.

Hem Pande
Additional Secretary

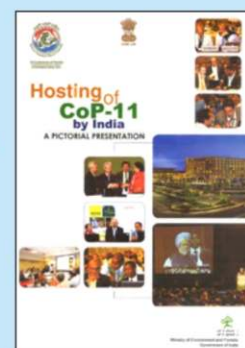
Ministry of Environment and Forests

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Hosting of CoP-11 by India: A Pictorial Presentation

India hosted the eleventh Conference of the Parties (CoP-11) to the Convention on Biological Diversity (CBD), and the sixth Meeting of the Parties serving as Meeting of the Parties (CoP-MoP) to the Biosafety Protocol in Hyderabad from October 1-9, 2012. This was the biggest ever conference hosted by India. As a tribute to the successful hosting of CoP-11, a booklet has been prepared by MoEF to depict a pictorial presentation of how the mega event was put together. This record not only provides an interesting insight into what went into the planning and conduct of the event but would also serve as a useful record for executing similar activities in future.



Celebrations of the 10th Anniversary of the Cartagena Protocol on Biosafety



To earmark the tenth anniversary of the entry into force of the Cartagena Protocol on Biosafety, on 11th September 2013, celebrations have been planned all over the world.

As the tenth anniversary of the entry into force of the Cartagena Protocol on Biosafety, was on 11th September 2013, the celebrations have been planned all over the world. The theme for the anniversary is "10 Years of Promoting Safety in the Use of Biotechnology". The Secretariat to CBD has invited parties to CPB, to organize national activities and events to commemorate the anniversary and to use the opportunity to highlight the achievements of the Protocol at the national level. The Secretariat has also developed the outreach materials to help promote awareness of the Protocol.

A series of short video clips from representatives of Parties and relevant organizations highlighting some of the successes and lessons learned with regard to the implementation of the following provisions of the Protocol are also presented below:

- Capacity-building

- Risk Assessment and Risk Management
- Socio-economic Considerations
- The Biosafety Clearing-House
- An anniversary edition of the Biosafety Protocol News
- 10th Anniversary Edition poster
- Map of Events
- Public Awareness and Public Participation
- Handling, Transport, Packaging and Identification of LMOs
- The Nagoya Kuala-Lumpur Supplementary Protocol on Liability and Redress

The information about the activities to be organized to celebrate the event can be accessed at: <http://www.cbd.int/doc/notifications/2013/ntf-2013-072-bs-en.pdf>.

The parties can use the above materials in their national level activities and disseminate them widely to their constituents, including the media. All are requested to keep Ministry of Environment & Forest informed as it is the nodal ministry for implementation of the Protocol in India. The Secretariat has also advised that they are informed about activities undertaken to mark the anniversary so that the same can be made available on the Protocol website.

Eleventh Biosafety National Project Coordinators (NPC) meeting at Mongolia



management tool. The participants were provided with practical guidance to enhance their skills in effective project implementation, through several technical presentations, hands-on training in the use of ANUBIS and budget revision, individual country sessions, plenary discussions on key issues, and experiences sharing amongst participants.

All participating countries made presentations on status of their

projects, outcomes and highlighted challenges and constraints being faced in implementing the projects. Shri Hem Pande briefly shared the outcomes of the Meeting of Bureau of the COP-MOP with the participants.

Dr. Ranjini Warriar, Director, MoEF and NPC made a presentation on status of the Phase II Capacity Building Project on Biosafety in India. She highlighted some of the challenges including disparity of rules and procedures on project approval and financing by UNEP and government of India, procurement issues and sustainability of capacity building program besides suggesting UNEP to take up more prominent roles. She also shared some of the regional cooperation activities India has done and proposed cooperation between regions for example joint NPC meetings where resources permit.

Recommendations from the meeting were related to implementation of the projects according to agreed work plans, timely completion and submission of relevant management reports into ANUBIS. Strengthening regional and sub-regional cooperation through data sharing and exchange of experiences was also identified as one of key areas.

The eleventh meeting of the National Project Coordinators (NPC) was held in Ulaanbaatar, Mongolia, from July, 1-5, 2013. The meeting was attended by 18 participants from 8 countries including, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Mongolia and Tajikistan. Shri Hem Pande, National Project Director, and Dr. Ranjini Warriar, National Project Coordinator of Phase II Capacity Building Project represented India. The meeting started with a welcome note from Mr. BuyaTulga, Vice Minister of Environment and Green Development, Mongolia and followed by remarks from Mr. Alex Owusu - Biney, Portfolio Manager of UNEP-GEF Biosafety Project, Division of Environmental Policy Implementation, United Nations Environment Programme (UNEP). The meeting focused on (i) ongoing developments under the Cartagena Protocol on Biosafety and experiences in implementation of the Protocol; (ii) challenges faced and experiences in execution of the projects; (iii) creating a platform for experience sharing, keeping in view regional developments and possible benefits; (iv) review of documentation and lessons learnt to guide future interventions; and (v) providing training on the use of ANUBIS as a project



Highlights of South Asia Biosafety Conference September 18-20, 2013 at New Delhi



The conference was co-organized under the South Asia Biosafety Programme (SABP) by Center for Environmental Risk Assessment (CERA), Bangladesh Academy of Sciences (BAS) and Biotech Consortium India Limited (BCIL) with support from the Ministry of Environment & Forests (MoEF) and the Department of Biotechnology (DBT), Government of India. This was one of the first initiatives on biosafety supported by MoEF during COP-11 presidency. The objective of the conference was sharing of experience and knowledge to promote regional co-operation in the area of scientific and regulatory issues on biosafety of genetically engineered organisms. The conference brought together scientists in the South Asian region and was attended by 180 participants. The conference was inaugurated by Dr. R. B. Singh, President, National Academy of Agricultural Sciences. Shri Hem Pande, Additional Secretary, MoEF addressed the participants in the opening session and launched an "E-learning Course for Compliance Management of Confined Field Trials". Senior officers from the Department of Biotechnology (DBT) and Indian Council of Agricultural Research (ICAR) i.e. Dr. S. R. Rao, Advisor, DBT and Dr. Swapan Dutta, Deputy Director General (Crop Science), ICAR also spoke in the inaugural session.

The first technical session was dedicated to presentations on country specific regulatory system by representatives from Bangladesh, Bhutan, India, Pakistan and Sri Lanka. These presentations were made by Ms. Tashi Yangzom, Regulatory and Quarantine Officer, from Bhutan Agriculture and Food Regulatory Authority, Mr. Solamain Haider, Deputy Secretary, Ministry of Environment & Forests, Bangladesh and Dr. S. R. Rao, Advisor, DBT for India. Dr. Anwar Nasim, Secretary General, Pakistan Academy of Sciences apprised the participants about the regulatory framework in Pakistan, whereas Prof. Athula Perera, Emeritus Professor, University of Peradinya

introduced the Sri Lankan developments in the area of biotechnology and biosafety regulations. It was evident from the series of presentations that the regulatory systems in the countries are still in the evolving stages and there are ample opportunities for strengthening the regional cooperation under the aegis of ongoing UNEP-GEF capacity building projects on biosafety.

The other three technical sessions in the conference had a series of presentations on areas of importance with respect to biosafety regulations and decision making from the international experts from USA, Australia, Canada, Europe and Brazil. The topics covered included "Regulation of genetically engineered plants in the context of biodiversity, phytosanitary and Food/Feed Safety Laws"; "New Plant Breeding Techniques and Biosafety Risk Assessment: and "Post-Approval Considerations for the Commercial Release of Genetically Engineered Organisms"

The conference largely focused on exchange of information on regulatory system in various Asian countries. It also gave an opportunity to developing nations to understand the regulatory frameworks in different developed countries.

The conference was followed by two workshops of half day each. The first titled "The Scientist as Public Communicator" had a lead presentation followed by panel discussions to discuss the challenges and need for effective communication by scientists to ensure its correct interpretation. The second workshop on "Understanding Test Protocols - Design, Reporting and Data Interpretation" was targeted to provide information about collecting good quality data for biosafety risk assessment and use of appropriate statistical tools for interpretation.

The presentations made at the conference and proceedings are available at [http://cera-gmc.org/index.php?action=era_conference_\(new_delhi_2013\)](http://cera-gmc.org/index.php?action=era_conference_(new_delhi_2013)).



WORKSHOP ON BIOLOGY DOCUMENTS AS A RESOURCE FOR ENVIRONMENTAL RISK ASSESSMENT OF GENETICALLY ENGINEERED PLANTS



On the sidelines of South Asia Biosafety Conference, a “Workshop on Biology Documents” was organized as part of the ongoing UNEP/GEF supported Phase II biosafety capacity building project being implemented by MoEF. The workshop was organized in the evening on September 19, 2013 by the Ministry of Environment and Forests (MoEF) and Biotech Consortium India Limited (BCIL) with technical support from Centre for Risk Assessment (CERA), ILSI Research Foundation (CERA-ILSI) and Organization for Economic Co-operation and Development (OECD). The workshop was attended by 30 scientists from various research institutions and members of regulatory committees.

The workshop commenced with an introduction to the Phase II Biosafety Capacity Building Project by Dr. Ranjini Warriar, Director, MoEF, Member Secretary, GEAC and National Project Coordinator (NPC). She informed that MoEF and DBT had earlier supported the preparation of five crop specific biology documents and continuing with the same, preparation of such documents for eight crops (chickpea, pigeon pea, sorghum, papaya, mustard, tomato, rubber and potato) has been planned under the biosafety project. She further explained that the main objective of this workshop was to sensitize concerned scientists about the structure and process of preparation of such documents to be used as a resource material for environmental risk assessment of genetically engineered (GE) plants.

Dr. Peter Kearns from Environment, Health and Safety Division of OECD, who has been involved in the preparation of series of biology documents on crops, traits, trees and

microorganisms at OECD, gave the first presentation. Sharing his experiences, he informed that the work on preparation of these documents started way back in 1994 and consensus approach has been used to take the views of participating countries on board. He explained about the role of OECD Secretariat, lead country and other participants. He spoke in detail about various components of biology documents and the information compiled for each of these as relevant for risk assessment. This was followed by a presentation by Dr. Morven McLean, Director, CERA-ILSI on the role and significance of biology documents in ERA of GE plants both in the context of confined field trials and unconfined environmental release. She informed that for the confined field trials, the ERA focuses on the mitigation measures which are determined by the biology of the plant species (esp. reproductive biology) and the receiving environment (agro-ecosystem at the production site), but are independent of the trait. She informed that the unconfined release is not subject to measures to limit spread or persistence of that GE plant, but the focus is on commercial release and therefore the set of ERA requirements are also different. She stressed that there is a critical distinction between unconfined releases and confined cultivation that needs to be clearly understood and articulated. She then explained in detail about the information requirements for ERA, which need to be appropriately documented in the biology documents so as to provide the baseline information.

Dr. O. P. Govila, Former Scientist, IARI informed that in the Indian context, biology documents are important as they need to be submitted to the regulatory agencies while submitting applications for conduct of confined field trials by developers. He shared some of the difficulties likely to be faced during the preparation process such as limited information, diverse views/papers etc. He opined that through a consultative process, these difficulties can be overcome. He stressed the need for documenting references for each of the sections of the biology documents. The presentations were followed by discussion wherein participants sought clarifications from the experts.

Dr. Ranjini Warriar gave the concluding remarks and requested the participants for their active involvement in the process of preparation of biology documents.



E-learning Course for Compliance Management of Confined Field Trials

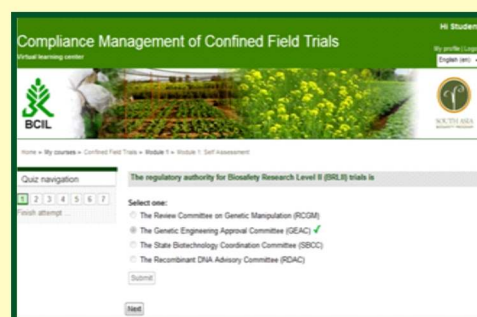
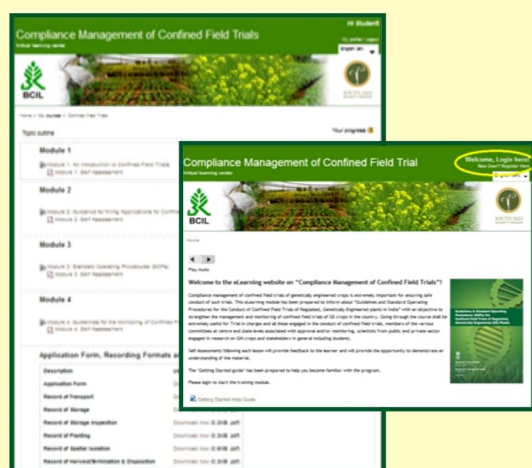
An e-learning course on “Guidelines & Standard Operating Procedures (SOPs) for Confined Field Trials of Regulated, Genetically Engineered (GE) Plants” is available at <http://cft.biotech.co.in>. The course has been developed by Biotech Consortium India Limited (BCIL) and South Asia Biosafety Program (SABP) with an objective to strengthen the management and monitoring of confined field trials of GE crops.

This e-learning course is a very useful tool for Trial-in-Charges, members of the various committees at center and state level associated with the monitoring of confined field trials, scientists from public and private sector engaged in research on GM crops, and other interested stakeholders including students. This course was launched by Shri. Hem Pande, Additional Secretary, MoEF, in the South Asia Biosafety Conference held on September 18-19, 2013 at New Delhi

The course contains four modules in line with the guidelines and SOPs

1. An Introduction to Confined Field Trials
2. Guidance for filling Applications for Confined Field Trials
3. Standard Operating Procedures (SOPs)
4. Guidelines for the Monitoring of Confined Field Trials of Regulated GE Plants

It also has a section on “Getting Started Help Guide” to help users to become familiar with the programme and audio facility has been provided in English. The first page of each module provides the “Learning Objectives” for the module, which are a brief outline of the course material that the users are expected to understand after they have completed the module. Self-Assessments following each module provide feedback to the learner and also provide the opportunity to demonstrate understanding of the material. Self-Assessment can only be done after completion of the modules by the users. The quiz can also be reattempted. All are encouraged to use the e-learning course and provide feedback.



Workshop on Taking Forward Herbicide Tolerant GM Crops: Opportunities and Challenges, May 2, 2013 at New Delhi

A workshop on “Taking Forward Herbicide Tolerant GM Crops: Opportunities and Challenges” was organized by Indian Society of Weed Science (ISWS) in association with Biotech Consortium India Limited May 2, 2013 at NASC Complex, New Delhi. This day long workshop was attended by 60 participants including members of ISWS, scientists from agricultural research institutions and state agricultural universities (SAUs), representatives from concerned government departments and industry. Some of the key points that emerged from the discussions were as follows:

- It is important that efforts be undertaken at all levels particularly by the ISWS for communicating the information/data available regarding the safety assessment and use of HT crops in various countries to address various safety concerns expressed by certain stakeholders.
- Data regarding the suitability of HT crops to the local conditions should be generated through the conduct of various field trials; whereas international



guidance / protocols for generating safety data can be appropriately adopted.

- Issues like super weeds, impact on biodiversity etc. should be dealt with in a scientific manner and myths should be explained in a simple language understandable to a common man.

Portal on Socio-Economic Consideration in the context of Article 26 of the Cartagena Protocol on Biosafety

At its sixth meeting, the COP-MOP considered further steps regarding socio-economic considerations. In decision BS-VI/13, the COP-MOP decided to establish an ad hoc technical expert group to develop conceptual clarity in the context of paragraph 1 of Article 26. The group is to submit its report to COP-MOP 7. To assist in the work of the expert group, the Secretariat was requested to compile, take stock of and review information on socio-economic considerations arising from the impact of LMOs on the conservation and sustainable use of biodiversity, especially with regard to the value of biodiversity to indigenous and local communities, and to convene online discussion groups and regional online real-time conferences to facilitate and synthesize the exchange of views, information and experiences on socio-economic considerations.

This portal on socio-economic considerations is intended to be the source for information on these activities. The portal may be accessed at

https://bch.cbd.int/onlineconferences/portal_art26/se_main.shtml

Regional Online Real-time Conferences on Socio-economic Considerations (Article 26 of the Cartagena Protocol on Biosafety)

In line with decision BS-VI/13 of the sixth meeting of the COP-MOP6 and as a follow up to the online discussions on socio-economic considerations in March - April 2013, a series of regional online real-time conferences were convened by the Secretariat to CBD in the month of June 2013 to further advance the discussions. The regional conferences were held as under:

- Western Europe and Others Group and Central and Eastern Europe : 13 June 2013
- Asia-Pacific : 17 June 2013
- Africa : 20 June 2013
- Africa (French) : 25 June 2013
- Group of Latin American and Caribbean countries (Spanish) : 27 June 2013

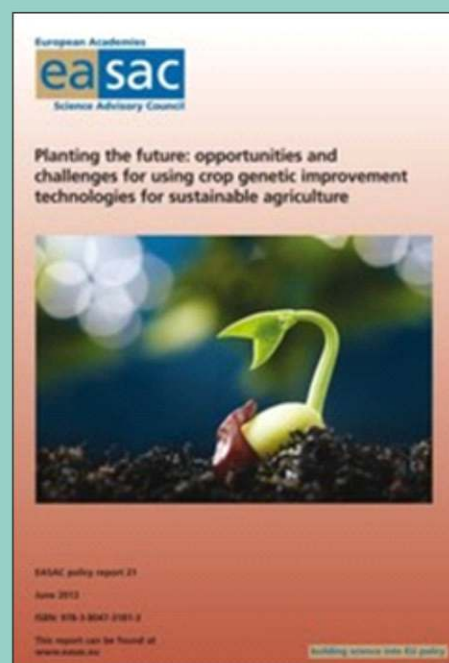
The conference for the Asia-Pacific countries was chaired by Dr. Ranjini Warriar, Director, MoEF. The proceedings of the same can be accessed at

http://bch.cbd.int/onlineconferences/portal_art26/Asia_Pacific.shtml

New Release

EASAC Policy Report 21 Planting the Future: Opportunities and Challenges for using crop genetic improvement technologies for sustainable agriculture

European Academy Science Advisory Council (EASAC), formed by the National Science Academies of 28 EU member states has released a report in June 2013 on opportunities and challenges of using crop genetic improvement technologies including genetic engineering for sustainable agriculture. The report entitled "Planting the future" is based on scientific evidence on the current and potential values of such technologies. Analysis of findings from other countries that are actively adopting biotechnology have been used, to ascertain the socio-economic and scientific impacts of taking different policy decisions. The current situation for agricultural biotechnology in Africa and the consequences for developing countries of policy choices made in the EU have also been considered. The EASAC Working Group arrived at conclusions in four main areas, which have extensive implications for ascertaining greater coherence in policymaking i.e. land use and innovation, regulation, promoting competition and the global context. Series of recommendations have been made regarding regulatory framework, public engagement, research and development and International partnership. The report is available at <http://www.easac.eu/>



Upcoming Events

Title	Organized/hosted by	Date & Venue	Website
National Events			
Workshop on application of genetic engineering in grain legumes and its translation	International Crops Research Institute for Semi Arid and Tropics (ICRISAT)	November 18-27, 2013, ICRISAT Headquarters, Andhra Pradesh	http://www.icrisat.org/what-we-do/learning-opportunities/Application.pdf
International Conference on Advances in Biotechnology and Bioinformatics 2013	Dr. D. Y. Patil Vidyapeeth, Pune's	November 25-27, 2013, Pune	http://icabb2013.dpu.edu.in/
International Conference on Role of Plant Biochemistry and Biotechnology in Food and Nutritional Security	Sri Venkateswara University, Tirupati	December 11-14, 2013, Tirupati	http://www.svuniversity.in/circular/bchemistry.pdf
National Conference of Plant Physiology - 2013 on "Current Trends in Plant Biology Research"	Directorate of Groundnut Research, Indian Society for Plant Physiology and Junagadh Agricultural University	December 13-16, 2013, Junagadh	http://www.nrcg.res.in/index.php?option=com_content&view=article&id=66&Itemid=67
National Seminar on Recent Advances and Challenges in Sugarcane Research	Directorate of Research & Zonal Agricultural Research Station, Mandya and University of Agricultural Sciences, Bangalore	January 17-18, 2014, Bangalore	http://www.uasbangalore.edu.in/images/attachments/home/nssr-2014.pdf
Bangalore India Bio	MM Activ Sci Tech Communications Pvt. Ltd.	February 10-14, 2014, Bangalore	http://www.bangaloreindiabio.in/Index_New.php
International Conference on "Probing Bioscience for Food Security & Environmental Safety"	Applied Zoologists Research Association (AZRA) and Central Rice Research Institute	February 16-18, 2014, Cuttack, Odisha	http://www.crri.nic.in/azra_first_circular.pdf
SOYCON-2014 International Soybean Research Conference	Society for Soybean Research and Development (SSRD) in collaboration with the Directorate of Soybean Research and Indian	February 22-24, 2014, Indore	http://www.soycon2014.com/
International Events			
7th International Rice Genetics Symposium	International Rice Research Institute (IRRI)	November 5-8, 2013, Manila, The Philippines	http://rice-genetics.com/
Global Conference on Entomology – 2013	V S Research Foundation and University of Technology MARA, Sarawak; Directorate of Agriculture, Govt. of Sarawak	November 8-12, 2013, Kuching, Sarawak, Malaysia	http://www.gce2013.com/topics/
2013 International Conference on Agriculture and Biotechnology (ICABT 2013)	Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES)	December 29-30, 2013, Kuala Lumpur, Malaysia	http://www.icabt.org/
"Risk Assessment: The Role of Science in GMO Decision-making"	National Biotechnology Development Agency, Abuja, Nigeria) (ICGEB) Biosafety Unit, Trieste, Italy	June 30 – July 4, 2014, Trieste, Italy	http://www.icgeb.org/meetings-2014.html
Theoretical and Practical Course "Plant Tissue Culture: Tool for Genetic Engineering of Plants"	ICGEB and National Biotechnology Development Agency, Nigeria	August 10-23, 2014, Abuja, Nigeria	http://www.icgeb.org/meetings-2014.html
13th International Symposium on the Biosafety of Genetically Modified Organisms (ISBGMO)	International Society for Biosafety Research (ISBR)	November 9-13, 2014, Cape Town, South Africa	http://isbr.info/ISBGMO13

Editor

Shri Hem Pande

Additional Secretary, MoEF

Editorial Board

Dr. Ranjini Warriar

Director, MoEF

Dr. K. V. Prabhu

Joint Director (Research), IARI

Dr. Ravi Khetarpal

Regional Director, CABI - South Asia

Dr. Vibha Ahuja

Chief General Manager, BCIL

For feedback please contact:

Dr. Ranjini Warriar, Director

Ministry of Environment & Forests

Paryavarn Bhawan, CGO Complex, Lodi Road, New Delhi-110003

Phones: +91 (011) 24363964, Fax: +91(011) 24361308 Email: warrier@nic.in

Dr. Vibha Ahuja, Chief General Manager

Biotech Consortium India Limited

V Floor, Anuvrat Bhawan, 210, Deen Dayal Upadhyaya Marg, New Delhi-110002

Phones: +91 (011) 23219064-67, Fax: +91(011) 23219063, Email: biosafety-mef@nic.in, vibhaahuja.bcil@nic.in

Disclaimer : The information in this newsletter has been compiled from various sources and does not necessarily depict views of the Ministry of Environment & Forests, Government of India.