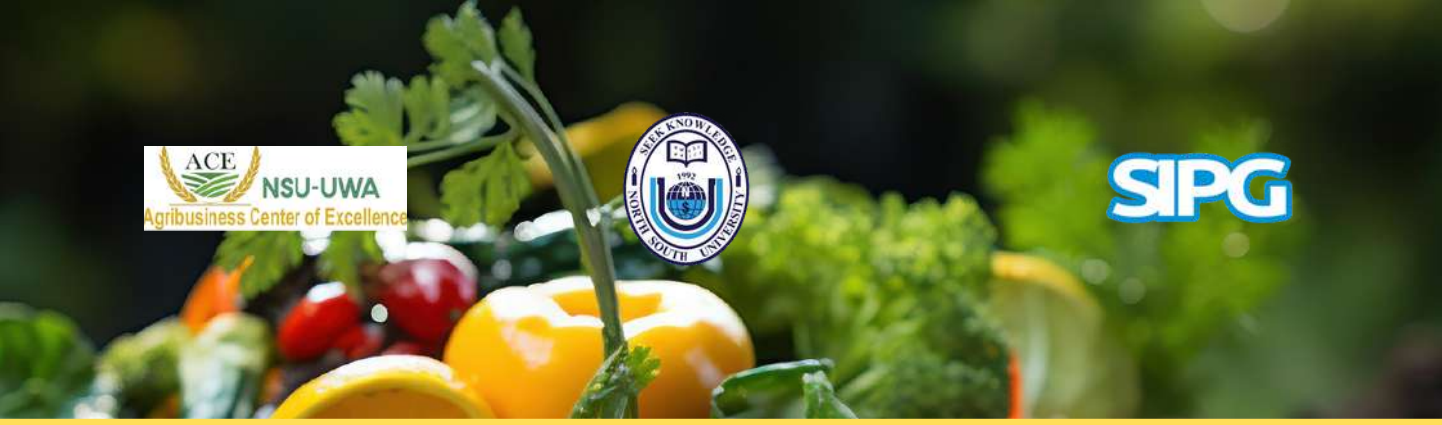


Policy Brief

GMO Crops in Bangladesh: Policies and Practices

The term "Genetically Modified Organism" (abbreviated as "GMO") is a non-scientific and ambiguous word that is frequently used in media outlets to refer to animals and plants that have been enhanced via the use of contemporary biotechnology methods, setting them apart from crops and livestock. The Food and Agriculture Organization (FAO, 2001) of the United Nations defines it as follows: “Genetically engineered/modified organisms, and products, thereof, are produced through techniques in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. It is an organism that has been transformed by inserting one or more transgenes.”

Moreover, Genetically Modified Food refers to the “Food produced for human consumption and derived from organisms whose genetic material (DNA) has been modified in a way that does not occur naturally, e.g. through introducing a gene from a different organism (FAO, 2020).”

February 2024

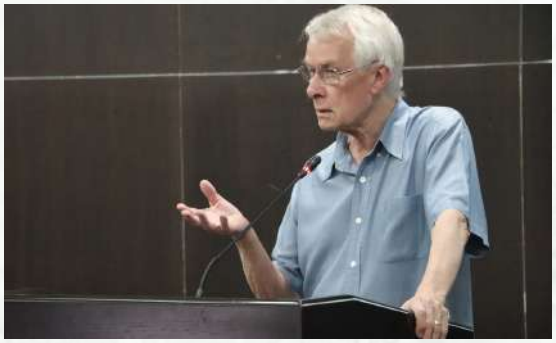
Associate Partner

Source of Policy Suggestions on GMO Crops

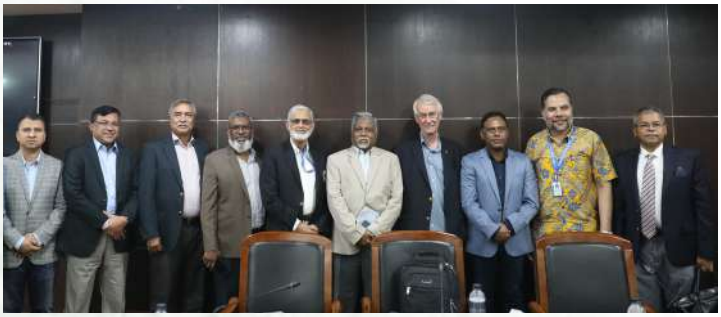
The question of whether human beings should eat food from genetically modified organisms, and if they should develop and propagate GM foods- is not amenable to a simple 'yes' or 'no' answer. Knowledge of GM food research to the common people, and the decision to consume or grow GM food, requires informed choice and decision of the consumers and farmers. Open talks and dissemination on research and release of GM food are also being constrained by counter-GMO propaganda across the globe which marks the pace of research and release of GMO crops as somewhat slow and limited. Therefore, discussion on GMO policy and practices is very much essential to appreciate the existing gaps in policy, progress on research, and release and commercialization of GMO products.

In this backdrop, the 'International Seminar on GMO Crops: Policy and Practices in Bangladesh', was convened on October 28th, 2023, at the Syndicate Hall, North South University, Dhaka. The main objective of this seminar was to review and discuss the policies and practices of GMO crops in Bangladesh, assess current progress in terms of research and production, and identify the major challenges. It marked a significant congregation of experts, researchers, policymakers, and stakeholders in agriculture. It was jointly organized by the South Asian Institute of Policy and Governance (SIPG) and the NSU-UWA Agribusiness Centre of Excellence (ACE). The associate partner was the South Asian Network for Public Administration (SANPA). This seminar provided a crucial platform for insightful discussions on genetically modified organisms (GMOs) and their impact on agriculture, with a particular focus on Bangladesh.

The keynote speaker for this prestigious event was Sir Richard J. Roberts, a distinguished Nobel Laureate in Physiology or Medicine. Professor Atiqul Islam, the Vice Chancellor of NSU, chaired the session. The distinguished panel of experts included Mr. Anwar Faruque, Former Secretary of the Ministry of Agriculture, Government of Bangladesh; Professor Dr. Abdul Khaleque from the Department of Biochemistry and Microbiology at NSU; Dr. M Mahfuzul Haque, Associate Professor at SIPG, NSU; and Dr. Md. Shawkat Islam Sohel, Assistant Professor in the Department of Environmental Science and Management at NSU. The seminar was facilitated by Professor Sk. Tawfique M. Haque, the Director of the South Asian Institute of Policy and Governance (SIPG). Professor Nazrul Islam of NSU-UWA Agribusiness Centre of Excellence (ACE) delivered the welcome speech, setting the stage for the thought-provoking discussions. Professor Dr. Hasan Mahmud Reza, Dean of the School of Health & Life Sciences at North South University extended the vote of thanks.



Keynote Speaker: Sir Richard J. Roberts, Nobel Laureate in Physiology or Medicine



Panelists at the seminar

The discussions centered on policy frameworks, challenges in policy adoption, and the necessity for informed decision-making in the realm of GMOs. This policy brief encapsulates the major outcomes of the seminar, serving as recommendations for further policy development in the field of agribusiness and GMO technology.

Following extensive discussions in the seminar on GMO Policy and Practices in South Asia, the conversations were grouped into three distinct categories: 1. Challenges and Recommendations for Advancing GMO Crops, 2. Government, Private, and Public Issues and Recommendations, and 3. Recommendations for Awareness Strategies. These are stated below:

Challenges for Advancing GMO Crops

1. Increasing misinformation and opposition to GMOs
2. Lack of regulatory framework and policy development
3. Concerns about environmental risks and long-term impact assessment
4. Resistance to adoption in developing countries
5. Slack in addressing biodiversity concerns
6. Lack of implementation of Bio-safety framework and monitoring
7. Concerns about legal issues and patent infringement
8. Environmental stewardship and responsibility concerns
9. Time and cost considerations for policy implementation
10. Lack of public awareness and education
11. Lack of transparency and discussion on potential health risks
12. Less urgency in empowering consumers and farmers
13. Lack of use of online resources to promote GMOs and presenting scientific facts in media

Recommendations for Advancing GMO Crops

1. Promote science-based education and awareness programs to address misconceptions about GMOs.
2. Collaborate with reputable scientific organizations to disseminate credible information about GMOs.
3. Intensify research on high-yielding GMO crops to meet the rising food demand.
4. Encourage the adoption of GMOs as an optional approach for farmers to enhance food production and security.
5. Strengthen and streamline regulatory processes to facilitate timely approvals for GMO research and commercialization.
6. Involve key stakeholders, including scientists, policymakers, legal experts, and industry representatives, in policy discussions and development.
7. Establish mechanisms for regular review and updates of GMO-related policies to align with evolving technologies.
8. Prioritize long-term environmental impact studies and consequences of GMO cultivation to assess potential risks and benefits.
9. Encourage informed discussions and knowledge sharing through public awareness campaigns and educational programs to address concerns and combat misinformation.
10. Establish and enforce a robust bio-safety framework for the release of GMO crops, including the creation of a monitoring body to ensure compliance with bio-safety rules and regulations.
11. Establish clear legal frameworks and guidelines to address potential patent infringement issues arising from the cross-pollination of GMO crops with neighboring fields, ensuring fair practices for both corporate and individual farmers.
12. Promote responsible practices in agriculture by prioritizing environmental stewardship, including the development of GMO crops resistant to pests and diseases, and the improvement of soil health through biotechnological research.
13. Continue efforts to provide policymakers with clear and compelling evidence of the benefits of GMO technology, particularly in addressing Vitamin A deficiency and saving lives in densely populated regions.
14. Advocate for equal ethical scrutiny and testing protocols for both traditionally bred plants and GMO crops, ensuring a consistent approach to assess potential risks and benefits.

Government, Private, Public Issues and Recommendations

Stakeholder	Issues	Recommendations
Government	Complex and lengthy regulatory processes	Simplify and accelerate regulatory processes to provide a clear framework for GMO research and commercialization for the development and adoption of GMOs.
	Policy gap	Establish mechanisms for regular review and updates of GMO-related policies to align with evolving technologies.
	Limited stakeholder participation in policy deliberations.	Involve scientists, policymakers, legal experts, and industry representatives and integrate ethical considerations into policy discussions and development.
	Unclear information on the duration of patent rights for crops, including GMOs	Establish transparent guidelines within the framework of the existing Intellectual Property Right (IPR) Act of Bangladesh, ensuring clear information on the duration of patent rights for agricultural innovations, particularly for essential food crops.
	Conclusive evidence for policy making	Encourage policymakers to seek conclusive evidence and research findings to inform their decisions regarding GMO technology, considering both the potential benefits and risks associated with its implementation.
Private Sector	Lack of collaboration	Establish partnerships between government agencies, private companies, and academic institutions to promote GMO research and development.
	Knowledge sharing	Create platforms for knowledge sharing and technology transfer between government agencies, private companies, and academic institutions.
	Balancing financial interests with public welfare	Consider adopting non-commercial approaches for technologies like Golden Rice, where patent holders may choose to make them freely accessible for the benefit of public health and welfare.
	Encouraging independent GMO development	Facilitate an environment where smaller labs and individual farmers can engage in GMO research and development independently, reducing dependency on large multinational companies.

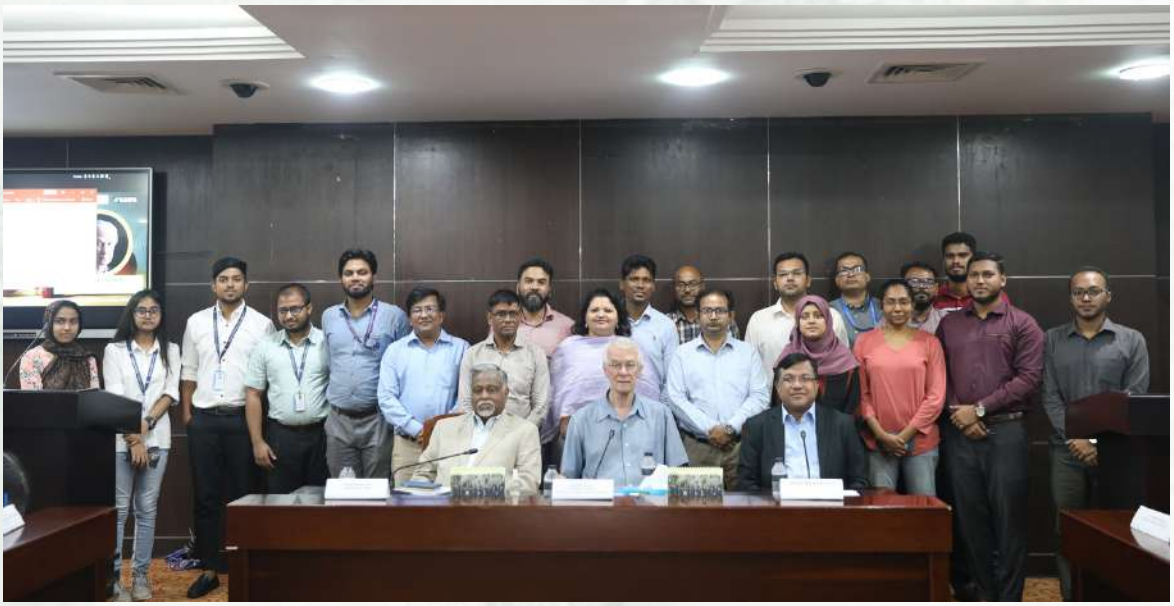
Public	Lack of public awareness	Execute tailored public awareness initiatives that highlight the advantages and safety of GMO technology.
	Misinformation and concerns perpetuated by anti-GMO advocates and organizations.	Engage reputable scientific organizations in educational outreach programs to provide accurate information on GMOs.
	Negative public perception	Promote open dialogue between scientists, policymakers, and the public to address concerns and provide transparent information.
	Transparency and potential health risk concerns regarding GMOs	Advocate for unbiased studies on GMO safety and their broader impacts, ensuring the availability of reliable information for widespread dissemination.

Recommendations on Awareness Strategies on GMO Crops

1. Implement campaigns aimed at raising public awareness about the benefits and safety of GMO technology.
2. Collaborate with respected scientific organizations for educational outreach, ensuring the provision of precise GMO information.
3. Advocate for impartial and comprehensive research on the safety and advantages of both GMO and traditionally harvested crops, prioritizing the rigorous examination of health concerns to provide accurate and reliable information.
4. Promote comprehensive campaigns to educate consumers about the importance of making informed food choices.
5. Stress the urgency of the situation and emphasize that inaction is not an option.
6. Launch awareness campaigns emphasizing the role of GMO technology in increasing agricultural yields and ensuring food security, particularly, in densely populated regions like Bangladesh.
7. Address common misconceptions about GMOs by providing evidence-based information through various channels such as mass media, highlighting their safety and benefits to inform the general public.
8. Involve influential figures, celebrities, and religious leaders to advocate for the safety and benefits of GMO technology, reaching a wider audience and building public trust in the science behind genetic modification.
9. Encourage the media to present accurate and objective science-based facts regarding GMOs rather than sensationalized or fear-inducing narratives, fostering informed public discourse.

References:

1. Food and Agriculture Organization [FAO]. 2001. Glossary of biotechnology for food and agriculture. Rome, FAO. Retrieved on 24 January 2024 from http://www.fao.org/3/y2775e/y2775e00.htm#Contents.
2. Food and Agriculture Organization [FAO]. 2020. Biotechnology. Rome, FAO. Retrieved on 24 January 2024 from http://www.fao.org/biotechnology/.



Organizers and participants at the seminar

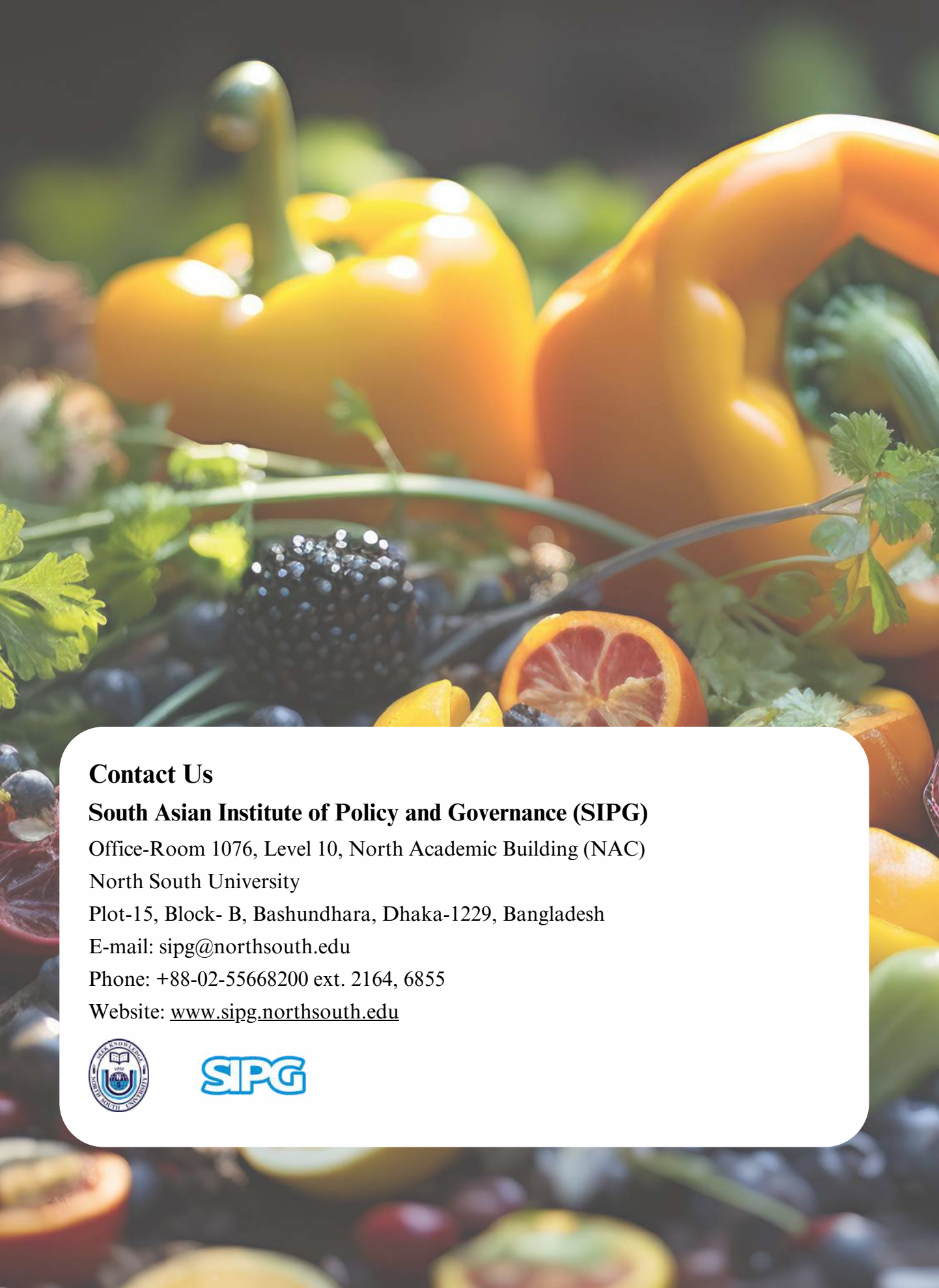
This Policy Brief is prepared by

Md. Parvez Hasan Yousuf
Research Associate, South Asian Institute of Policy and Governance (SIPG),
North South University
&
Ms. Rifah Nanjiba
Research Associate, NSU-UWA Agribusiness Centre of Excellence (ACE),
North South University

Designed by

Mahmud Bin Morshed
Research Associate, South Asian Institute of Policy and Governance (SIPG),
North South University

Special thanks to the NSU-Office of Research for copyediting this policy brief.



Contact Us

South Asian Institute of Policy and Governance (SIPG)

Office-Room 1076, Level 10, North Academic Building (NAC)

North South University

Plot-15, Block- B, Bashundhara, Dhaka-1229, Bangladesh

E-mail: sipg@northsouth.edu

Phone: +88-02-55668200 ext. 2164, 6855

Website: www.sipg.northsouth.edu