Kazi Nazrul Islam
Deputy Secretary
Ministry of Science & Technology
Bangladesh

SUSTAINABLE DEVELOPMENT GOALS OF BANGLADESH
Goal 1.
End poverty in all its forms everywhere

Goal 2.
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3.
Ensure healthy lives and promote well being for all at all ages

Goal 4.
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5.
Achieve gender equality and empower all women and girls
Goal 6.
Ensure availability and sustainable management of water and sanitation for all

Goal 7.
Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8.
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9.
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10.
Reduce inequality within and among countries

Goal 11.
Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12.
Ensure sustainable consumption and production patterns

Goal 13.
Take urgent action to combat climate change and its impacts

Goal 14.
Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15.
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16.
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17.

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Challenges & Action plans:

* Literacy
* Technology
* Development programmes
* Infrastructure
* Electricity availability
* Innovation scope
Goal 1. End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty

1.3 Implement nationally appropriate social protection systems
By 2030 achieve substantial coverage of the poor and the vulnerable
1.4 By 2030, ensure to have equal rights to economic resources.

Access to basic services, ownership and control over land and other forms of property.

Inheritance, natural resources, appropriate new technology and financial services, including microfinance

1.5 By 2030, build the resilience of the poor and those in vulnerable situations

Reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters
1.a  Ensure significant mobilization of resources enhancing development cooperation provide adequate and predictable means to implement programmes and policies to end poverty in all its dimensions

1.b  Create sound policy frameworks at the national, regional and levels) based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.1
By 2030 end hunger and ensure access by all people to safe, nutritious and sufficient food all year round

2.2
By 2030, end all forms of malnutrition

By 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age

Address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
2.3
By 2030, double the agricultural productivity and incomes small-scale food producers

To have equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4
By 2030, ensure sustainable food production systems
Implement resilient agricultural practices that increase productivity and production

To strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality and older persons
2.5
By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals Soundly managed and diversified seed and plant banks at the national, regional and international levels
Promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources.

2.a
Increase investment, including through enhanced international cooperation
In rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries.
2.b
Correct and prevent trade restrictions and distortions in world agricultural markets

Parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect.

2.c
Adopt measures to ensure the proper functioning of food commodity markets and their derivatives

Facilitate timely access to market information, including on load reserves, in order to help limit extreme food price volatility
Goal 3. Ensure healthy lives and promote well-being for all at all ages

3.1
By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2
By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
3.3

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

3.4

By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.
3.5
Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6
By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7
By 2030, ensure universal access to sexual and reproductive health-care services
Family planning, information and education, and the integration of reproductive health into national strategies and programmes.
3.8
Achieve universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

3.9
By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
3.a
Strengthen the implementation at the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.

3.b
Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines. Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.
3.c
Substantially increase health financing and the recruitment, development, training and retention or the health workforce in developing countries

3.d
Strengthen the capacity of all countries for early warning, risk reduction and management of national and global health risks

Goal 4. Ensure Inclusive and equitable quality education and promote lifelong learning opportunities for all

4.1
By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.
4.2
By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education

4.3
By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4
By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
4.5
By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

4.6
By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.
4.7
By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development
To provide education for sustainable development and sustainable lifestyles, human rights
To provide gender equality, promotion of a culture of peace and non violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development

4.a
Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, ruin—violent, inclusive arid effective learning en vi run merits for all
4.b
By 2020, substantially expand globally the number of scholarships available to developing countries for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.

4.c
By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states.
Goal 5. Achieve gender equality and empower all women and girls.

5.1 End all forms of discrimination against all women and girls everywhere

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation
5.4
Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

5.5
Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.
5.6
Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of action of the International Conference on Population and Development and the Beijing Platform for action and the outcome documents of their review conferences.

5.a
Undertake reforms to give women equal rights to economic resources
Provide access to ownership and control over land and other forms of property, financial services, inheritance and natural resources.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.
5.c

Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

Goal 6. Ensure availability and sustainable management of water and sanitation for all

6.1
By 2030, achieve universal and equitable access to safe and affordable drinking water for all
6.2
By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

6.3
By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials. Halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
6.6
By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b
Support and strengthen the participation of local communities in improving water and sanitation management
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
7.b
By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries

Goal 8.
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
8.1
Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries

8.2
Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
8.3
Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4
Improve progressively, through 2030, global resource efficiency in consumption and production
Endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of programmes on Sustainable consumption and Production, with developed countries taking the lead
8.5
By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

8.6
By 2020, substantially reduce the proportion of youth not in employment, education or training.

8.7
Take immediate and effective measures to eradicate forced labour, and modern slavery and human trafficking. Secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms.
8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated framework for trade-related technical assistance to least Developed Countries
8.b

By 2020, develop and operationalize a global strategy for youth employment and implement the Global jobs pact of the International Labour Organization

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans border infrastructure, to support economic development and human well being.
9.2 Promote inclusive and sustainable industrialization
By 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3 Increase the access of small-scale mid industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

9.5

Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, By2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people arid public and private research and development spending.
9.a
Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.b
Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment For, inter alia, industrial diversification and value addition to commodities
9.c

Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.

Goal 10. Reduce inequality within and among countries

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population ata rate higher than the national average.
10.2
By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.3
Ensure equal opportunity and reduce inequalities of outcome including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.4
Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality
10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions

10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies

10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements
10.b
Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries,

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

11.1 By 2030 ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all
Improving road safety. notably by expanding public transport with special attention
11.4 By 2030, significantly reduce the number of deaths and the numbers of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters.

11.5 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

**Goal 12. Ensure sustainable consumption and production patterns**

12.1 Implement the 10 year framework of programmes on sustainable consumption and production patterns. All countries taking action, with developed countries taking the lead.

12.2 By 2030 to achieve the sustainable management and efficient use of natural resources
12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post harvest losses.
12.4 By 2030, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle.
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Goal 13. Take urgent action to combat climate change and its impacts

13.1 Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries
13.2 Integrate climate change measures into national policies, strategies and planning.
13.3 improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.a Implement the commitment undertaken by developed country parties to the united nations framework convention on climate change to a goal of mobilizing jointly

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds. Minimize and address the impacts of ocean acidification

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts
14.3 Minimize and address the impacts of ocean acidification including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services.
15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, , restore degraded forests
15.3 By 2030, combat desertification, restore degraded land and soil including land affected by desertification, drought and floods and strive to achieve a land degradation neutral world
15.4 By 2030, ensure the conservation of mountain ecosystems
15.5 Take urgent and significant actions to reduce the degradation of neutral habitats, halt the loss of biodiversity

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1 Significantly reduce all forms of violence and related death rates everywhere

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children
16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.5 substantially reduce corruption and bribery in all their forms

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

17.1 Strengthen domestic resources mobilization including through international support to developing countries to improve domestic capacity for tax and revenue collection

17.2 Developed countries to implement fully their official development assistance commitments.
17.3 Assist developing countries in attaining long term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring.

17.4 Adopt and implement investment promotion regimes for least developed countries.

SDG related to SETI
Ministry of Science & Technology

SDG programmes related to SETI:

(1) Establishment of institute of Nuclear Medical physics at atomic energy centre, Dhaka

(2) Modernization of food and radiation biology facilities of Bangladesh atomic energy commission

(3) Capacity build up of nano and nano biotechnological laboratory at Material Science Division, atomic Energy Centre, Dhaka

(4) Establishment of designated reference institute for chemical measurements
(5) Establishment of physical facilities for technology transfer and innovation in Bangladesh council of Scientific and industrial research, Dhaka

(6) Strengthening of leather research institute.

(7) Capacity building of (IFST) Institute of Food Science and Technology research on milk and dairy products.

REQUIREMENTS OF NEW PROGRAMMES UP TO 2020

(1) Establishment of Atomic Energy Centre at Cox’s Bazar.

(2) Improvement of laboratory Facilities of Institute of Electronics to support the Government’s Digital Technology based Activities.
(3) Balancing Modernization Refurbishment and Extensions (BMRE) of Safety Systems of the 3 MW TRIGA Mark-11 Research Reactor Facility at AERE, Savar, Dhaka.

(4) Augmentation of chemical Metrology Infrastructure in Bangladesh.

(5) Strengthening of research capacity for the ceramic, glass, cement and allied field (IGCRT).

(6) Establishment of Pharmaceutical sciences research institute for bioequivalence studies and drug development.

(8) Establishment of Science city.

(9) Collection meuseo-bus and school bus.

(10) Distribution of essential materials to newly established Upazilla science club.


(13) Establishment of Bangabandhu Sheikh Mujibur Rahman Novotheatre at other divisional levels and important tourist spots at Cox’s Bazar and at Kuakata.

(14) Procurement of digital films.

ACTION PLANS (2021-2030)
(1) Upgradation of existing facilities of Atomic Energy Centre, Dhaka

(2) Establishment of advanced nuclear medicine & oncology centre.

(3) Screening of congenital hypothyroidism in newborn babies.

(4) Capacity building of nuclear minerals unit for R&D activities of Geological prospects in Bangladesh.

(5) Establishment of nuclear cyber security & information system innovation research laboratory at BAEC.
(6) Establishment of standard calibration and quality assurance laboratory for radiotherapy diagnostic radiology and neutron radiation.

(7) To enhance technical capacity of BCSIR for ensuring chemical metrological traceability.

(8) Establishment of science museum in divisional level.

(9) Strengthening the Bangabandhu Sheikh Mujibur Rahman Novotheatre.

(10) Procurement of Telescope, scientific and digital exhibits.

(11) Procurement of portable digital planetarium system.
THANK YOU ALL