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White Paper

Top Ten Priorities: in Implementation of Low Carbon Sustainable Energy Development and Adaptation Framework to Reduce Disaster Impact in the Context of Bangladesh

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This white paper recognises that for the decision makers and policy makers implementation of any intervention for changing the existing service delivery model, production model, market or regulatory model that impacts consumers and citizens are the most challenging tasks. Uncertainties about consumers and citizens' responses lead to delays or suboptimality in action. Ten priority actions with major direct SDG links that can reduce uncertainty in decision making in energy, climate change and disaster contexts of Bangladesh are derived from the assessment of research outputs of more than 70 lead subject experts and peer reviewed through blind review process by 50 expert reviewers from all over the world published in two special issue volumes of this Journal and research undertaken under the Bangabandhu Chair endowment at the Asian Institute of Technology, Thailand.

This white paper provides ten top priority actions for direct and focused solution that are useful for Bangladesh, a country that aims to graduate to developed country status within next two decades passing through middle income stage by 2024. In next two decades global goal is to achieve net zero carbon emission. The priorities for Bangladesh need to integrate local aspiration with global goals. Decisions for most of the actions which will build the roadmap for next two decades should be taken now. Faster transition to deliver wellbeing for the people of Bangladesh can happen only through transformative actions and not just incremental small step actions.

1. **For faster renewable energy penetration** in Bangladesh urgent policy action is needed to overcome the top most barrier of human capacity. Shortage of trained manpower with right skill to assess resource potential, lead and manage innovation, guide technology development and deployment, enterprise development for local manufacturing, can be overcome through introduction of extensive teaching and training programmes within universities and college curriculum and by creating a network of national institutions. Collaboration with international

institutes will expedite the process with very high future dividend. This will accelerate the process of training of national trainers and new skilled manpower and simultaneously satisfy multiple SDGs (SDG 4, SDG12, SDG13, SDG 17, SDG7, SDG 1, SDG2, SDG 6).

2. **Inclusive, transparent single window institutional arrangement** can reduce delay in bureaucratic processes in renewable **energy project** clearance, integration with grid and accelerate investment penetration and social acceptance. Consumer feedback integration with technology innovation, policy innovation and regulatory changes can help reduce transaction cost. Top down target setting and bottom up innovation uptake need to be managed by a special exclusively focused task force which is empowered to go beyond line ministries/departments and act as a “national transitions management” team publicly accountable and monitorable framework. (SDG 12, SDG 13, SDG 16, SDG 10).
3. In **energy sector local innovation, technology** and business model development and communication strategy should get priority to continuously reduce uncertainty about performance of new technology in local context, price volatility, policy shifts, financial resources availability to give confidence to investors and help market mechanism to grow in the long run (SDG 8, SDG 9, SDG7, SDG 10).
4. Currently, **energy related data** are scattered and available from diverse sources e.g., official publications like annual reports, planning documents, national statistical yearbook, news, announcements, project developers. Demand side data from the various sources do not match or are even non-existent. All these are barrier to planning, design new investment as well as monitoring, sometimes leading to costly duplication of efforts. This can be solved by creating dedicated officially endorsed data base of both supply side and demand side and which will help building awareness about low carbon and low energy demand roadmap for Bangladesh (SDG 7, SDG 9, SDG 12, SDG17).

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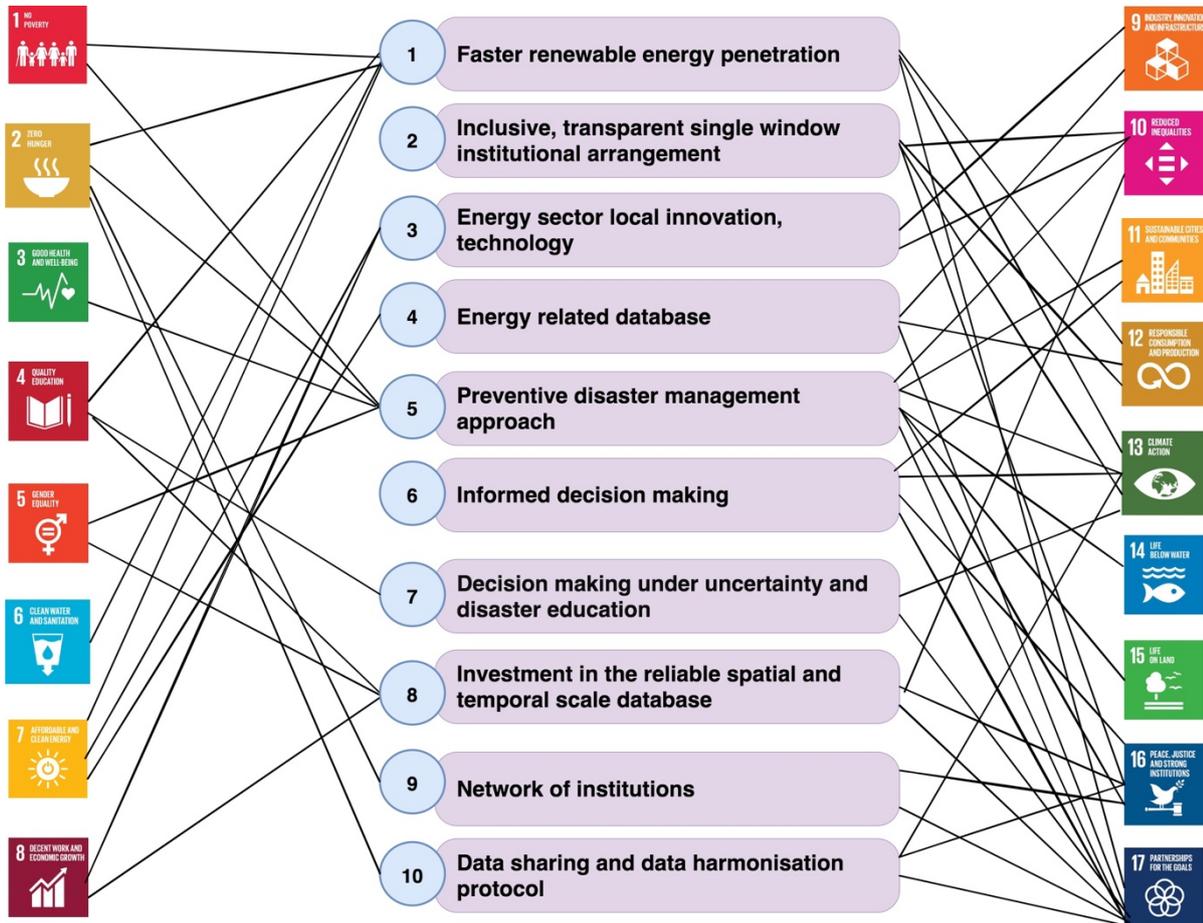


Fig. 1. Top ten priority actions with indicative direct SDG links

5. For a disaster-prone country like Bangladesh **preventive disaster management** approach to reduce exposure of communities should be a priority rather than traditional post disaster relief driven management plans and actions. Multiple hazards need complex system of infrastructures development plans. Community empowerment with special attention to gender and better vertical integration to minimize local level vulnerability is core of transformative adaptive inclusive and transparent governance. Digital mapping of community of risk in various risk categories can be a good starting point (SDG 5, SDG 11, SDG 13, SDG 14, SDG 15, SDG 16, SDG 17, SDG1, SDG2, SDG3, SDG 10)
6. Reduction of loss and damage depend on quality of **informed decision making** for maximizing benefits from ‘response and recovery actions. Sendai Framework for Disaster Risk Reduction (SFDRR) 2015- 2030 for building institutions to support resilient communities with better adaptive capacity will depend on making critical infrastructure network resilient through appropriately trained and empowered community. (SDG 11, SDG 13, SDG 16, SDG 17).
7. Current pool of trained personnel and institutional arrangement good for addressing specific type of disaster need additional knowledge and skill to handle increasingly complex changes. Multiple/cascading disaster driven risk informed

policy formulation and actions need special cognitive skills for understanding risks, knowledge, training and technology. **Decision making under uncertainty and disaster education** should form a compulsory study discipline at various levels: schools, colleges, universities and professional training organisations. (SDG 4, SDG 13, SDG 17).

8. To shape the decision making through next two decades under growing uncertainty when Bangladesh aspires to attain developed country status graduating through middle income status **investment in building a nationally rooted reliable spatial and temporal scale data base on digital platform** becomes a prerequisite. Information is the key to develop implementation strategies and dynamic baseline to build an economy to deliver human wellbeing. To decide on actions and responsibilities with continuously changing baseline can be monitored only through access to reliable data base. Current efforts to satisfy global reporting needs are working well but a step jump now is needed for managing the implementation of internal national sustainable developmental actions. Gaps in updated granular data at household and neighbourhood scale on natural capital, social capital, human capital, physical capital and knowledge capital should be started now to help mapping changing baseline involving local academic institutions and youths. (SDG 4, SDG 5, SDG 8, SDG 16, SDG 17, SDG 10).

9. It is right time to start Bangladesh statistical commission which can coordinate and develop protocol for data need, updates, comparison and matching with right group of human capital. E.g., commendable work by National Agricultural Research Systems get undermined when state of the soil data is found to be more than 4 decades old especially when characteristics of hydro-climatologically active floodplains change frequently and link with agricultural trade statistics and implications become important. NARS also has set a good example of interinstitutional coordination structure. Such **network of institutions** under one umbrella of statistical commissions can bring economic, social and environmental sectors and asset types (five mentioned in earlier point) on an appropriately connected database to help in short through long term aspiration management of national growth process. (SDG 16, SDG 17, SDG 2).
10. **Data sharing and data harmonisation protocol** need to exist in keeping with diversity of user group starting from researchers to commercial and international decision makers. Revisiting NSDS National Strategy for Development of Statistics 2013, Statistical Act 2013 can be the starting point. NSDI (National Spatial Data Infrastructure) if properly harmonized with UN-FDES, UN-SEEA, ‘DesInventar’ of UNDRR, DRSF (disaster statistics proposed by UNESCAP), PEI (poverty

environment integration) and trade data can help reduce cost and overlaps inherent in fragmented efforts. (SDG 13, SDG 16, SDG 17, SDG 2)

We are happy to start the year 2021 with publication of Volume 2 of Bangabandhu Chair Special Issue of IEJ as a sequel to Volume-1. We are even happier that it is coinciding with the declaration of Bangladesh Government of extension of ‘Mujib Year’ year of Bangabandhu’s birth centenary. We present in Volume-2 concrete action points to accelerate the implementation of the dream of building a Golden Bengal “*Sonar Bangla*”, a concept resembles very closely the long-term Sustainable Development pathway for humanity as a whole.

REFERENCES

- [1] Roy J., Islam S.T., and Pal I., 2020. Energy, disaster, climate change: Sustainability and just transitions in Bangladesh. *International Energy Journal* 20 (2020) (Special Issue 3A) <http://www.reicjournal.ait.ac.th/index.php/reic/issue/view/Volume%2020%2C%20Special%20Issue%203A%2C%20October%202020>.
- [2] Roy J., Islam S.T., and Pal I., 2021. Energy, disaster, climate change: Sustainability and just transitions in Bangladesh. *International Energy Journal* 21 (2021) (Special Issue 1A).
- [3] <https://www.change framing.space/>.

To Quote Bangabandhu Sheikh Mujibur Rahman:

“I do not say anything to intellectuals. I respect them. I would only say this to them that, please use your intellects for the welfare of the people. I do not say anything more than this”.
(The last public address at Suhrawardy Uddan, 26 March 1975)

“My greatest strength is the love for my people, my greatest weakness is that I love them too much.”
{from : <https://quotes.yourdictionary.com/author/sheikh-mujibur-rahman/>}

“It is not possible to build golden Bengal without golden people”
(The last public address at Suhrawardy Uddan, 26 March 1975)

“As a man, what concerns mankind concerns me”.
(Unfinished Memoirs, 3 May 1973)

“We can suffer but we don’t die. People’s strength is the biggest force for the challenge of survival. Our aim is to achieve self-dependence”
(Addressing the United Nations, 23 September 1974)

“The world is divided into two halves, the oppressed and the oppressors. I am with the oppressed”.
(At the conference of Non-Alliance Movement, Algiers, 6 September 1973)

{from: <https://www.7thmarch.com/quotations/>}