

CAREER

What needs to change to accommodate environmental science graduates?



ILLUSTRATION: ANWAR SOHEL

SHOUMIK ZUBYER

My time as an environmental science undergrad was defined by hurdles that have become run of the mill for any pursuant of this field. It is an ailment that is national in scale: the scantness of scope for graduates of this essential discipline. Despite how lucrative the applications in the field are, graduates often opt to pursue jobs that offer more security, such as finance, NGOs, and public service. Seeing the brightest-eyed lose their impassioned drive to fix the troubles that ail the climate, crops, the rivers and soil, all for the lack of a formal scope, is nothing short of tragic.

But should reality really be this bleak?

Environmental sciences is far from a niche field. Mobility frameworks have an inclination towards pure and industrial research, consultancy, policy work and even corporate agility. These are the norms for nations that are committed to their COP30 goals.

To that end, students of Human Development Index (HDI) Tier 1 countries – such as Norway and Switzerland – who pursue environmental studies don't have to put up with as many hurdles in employment. While Bangladesh obviously lags behind in many criteria compared to these nations, the fact remains that students must be extended an olive branch. Without it, all we may be left to do is lend our talents to countries that are miles up ahead in the sustainability ladder.

So, what are some of the contrived issues that plague graduates here?

Lack of support outside of academics, which values rote learning above practical implementation, is often the root of this conundrum. No formal support for research outside of limited seats involving recycled thesis ideas is yet another issue that prevails. Offering zero referrals for higher studies amid starved research funding exacerbates frustrations.

Another facet includes technical certifications. The International Organisation of Standardisation (ISO) certifications – simple paperwork that fuels the environmental monitoring and auditing industry – are behind paywalls. They remain accessible mainly via elite firms, side-lining graduates who are less fortunate financially.

Moreover, the explosive development of AI in recent times has grossly outpaced the skills most faculty members have. And as a result, students play catch-up with required skillsets and fall behind in this account.

“Unlike our engineering or medicine peers, environmental science graduates get neglected in job markets, as employers favour arbitrary soft skills over the

theory mastery we slaved for,” says Fazla Zawadul Arabi, associate project officer at WaterAid Bangladesh and Dhaka University (DU) alumnus from the Department of Soil, Water and Environment.

“As the curriculum is divorced from field sites, it breeds cynicism in students, leading to short-term retention—an effect worsened by zero interdisciplinary ties between academic, industrial, corporate, and humanitarian activities, and frustrated ambitions. Internships pay pennies with no training in marketable skills, pile on work, and worst of all, operate via opaque hiring processes. So, what exactly does tertiary education in this discipline yield in the grand scheme?” he asks.

Elsewhere, government environmental roles use outdated, trivia testing methods to recruit cadres. The recent BCS exams have tried to incorporate more analytical aspects into their preliminary assessments, though they were met with haste. Even so, the discipline prepares an individual in very few details.

“While salinity ravages southern deltas, Bangladesh Agricultural Research Institute shuns most graduates, offering internships only to the top 0.05 percent, while the nation's very own soils demand more,” explains Prof. Dr Md Harunor Rashid from the Department of Soil, Water and Environment, DU.

He further explained that despite the wealth of resources that the Bay of Bengal is brimming with – including fisheries, tourism, and the potential for renewables like offshore wind and tidal power – it is not being properly utilised. He added that experts at the Ministry of Environment, Forest and Climate Change of Bangladesh peg its potential at billions in value-added output, yet environmental science graduates continue to struggle for a piece of the pie.

Startups also starve without funding. For instance, Startup Bangladesh's BDT 500 crore pot snubs early career climate tech initiatives, accelerating brain drain. Initiatives from Europe, like Orange Corners in Bangladesh, provide more catalytic funds and venture support for green businesses than national establishments.

All dilemmas in sum divert the talent away from the field, giving us a glimpse at only the tip of a seemingly insurmountable iceberg.

In contrast to the issues prevalent in Bangladesh, the European framework offers insight into what a thriving system could look like.

The European Green Deal (EGD) fuses rigorous academics with a massive industrial scale that is virtually

absent in this country. The EGD mandates stewardship as a business prerequisite, not just a corporate social responsibility add-on.

“In my experience, Europe contrasts with a thriving ecosystem where the discipline unlocks policy, industry, and innovation while allowing vocal input from its youth. Bangladesh would stand to gain immensely by initiating projects tackling floods and air pollution crises,” Fazla Zawadul adds.

For academia, the European Higher Education Area (EHEA) uses the Bologna Process to standardise degrees across 49 countries. This facilitates a fluid labour market where a flood specialist trained in the Netherlands can easily work in Italy. Bangladesh, in comparison, fails to emulate this by failing to harmonise its environmental curricula with regional partners. The issue is present even at a smaller scale, as public university students cannot transfer credits to private institutions, let alone foreign programmes.

As for programmes themselves, MESPOM—Erasmus Mundus Joint Masters in Environmental Sciences, Policy and Management—targets extensive training on environmental hazards management with policy advancement. IMBRSea – an International Master of Science in Marine Biological Resources – advances marine resources opportunities and blue economy entrepreneurs. By implementing such a robust curriculum that lays the groundwork for industry-required proficiencies, it abates the need for young graduates to move elsewhere for better opportunities.

“Between 2000 and 2020, employment in the environmental economy grew faster than in the overall EU economy. These statistics seem impossible for Bangladesh without major governmental oversight and reform. A booming job market means a more collected, socially stable youth that refrain from looking elsewhere for the welfare of their ambitions, as I have done,” says Sithi Shayonti Dutta, a DU alumna currently in an Erasmus Mundus programme residing in Prague.

The EU also pumps millions into research and ventures to find solutions for high-priority climate issues. Using hyper-accumulator plants (such as Indian Mustard - widely available in Bangladesh) and engineered bacteria, they are enriching their food resources and livelihoods. Startups like Endolith and Genomines use tiny plants for mining nickel from shallow fields, which are economically unfeasible for traditional mining. Such ideas are only able to come to fruition because young minds are given the resources to flourish.

Environmental science graduates of the country are most notably battling an industry-curricula mismatch, leaving them unprepared for real-world challenges. Ensuring seamless entry into policy and tech roles and addressing the lack of a fundamental framework for the cohort, policymakers must build academia-to-industry pipelines. Additionally, training in AI-driven air quality forecasting or bioremediation approaches may also be implemented.

Furthermore, National Science and Technology (NST) Fellowships and Green Climate Fund-backed upskilling at universities, the removal of certification paywalls, and government subsidies could unlock these doors for Bangladesh. To curb promising start-ups from leaving the country, dedicated climate venture grants for waste management or mangrove conservation efforts must also be ensured.

The European framework demonstrates the significance of equipping graduates not just through certification but also with the right skills. In that regard, the need to internationalise curricula via mobility must also be a priority. Implementing any semblance of the framework may mean employing opportunity-starved youth, and finally fanning the flame of stewardship as an industry.

Shoumik Zubyer is a researcher of the soils of Mars at the Atomic Energy Commission and SERC, and a peripatetic. Find him at: shoumik.zubyer@gmail.com