

সংগ্রাম

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ব্রিতে জলবায়ু সহনশীল ধান নিয়ে কর্মশালা

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জলবায়ু পরিবর্তনের চ্যালেঞ্জ মোকাবিলা করে অধিক উৎপাদনশীল ও সহনশীল ধানের জাত উদ্ভাবনের লক্ষ্যে বাংলাদেশ ধান গবেষণা ইনস্টিটিউট (ব্রি) এবং যুক্তরাষ্ট্র সরকারের ‘ফিড দ্য ফিউচার ইনোভেশন ল্যাব ফর সিরিয়ালস’ কর্মসূচির যৌথ উদ্যোগে ধানের তাপ সহনশীলতা ও অক্সিজেনবিহীন অঙ্কুরোদগম (Anaerobic Germination) বিষয়ক দুটি অগ্রাধিকার প্রকল্পের প্রারম্ভিক ও পরিকল্পনা কর্মশালা অনুষ্ঠিত হয়েছে। মঙ্গলবার (১৪ জুলাই) গাজীপুরে ব্রি সদর দপ্তরের প্রশিক্ষণ কমপ্লেক্সে আয়োজিত এ কর্মশালার অর্থায়ন করে যুক্তরাষ্ট্রের পররাষ্ট্র দপ্তর।

কর্মশালায় সভাপতিত্ব করেন ব্রির পরিচালক (গবেষণা) ড. মো. রফিকুল ইসলাম। বিশেষ অতিথি হিসেবে উপস্থিত ছিলেন ব্রির পরিচালক (প্রশাসন ও সাধারণ পরিচর্যা) ড. আমিনুল ইসলাম, যুক্তরাষ্ট্রের টেক্সাস এ্যান্ডএম বিশ্ববিদ্যালয়ের এইচএম বিচেল রাইস চেয়ার অধ্যাপক ড. মাইকেল থমসন এবং রাইস জেনেটিক্স অ্যান্ড জিনোমিক্স বিভাগের অধ্যাপক ড. এনভাং সেপটিনিংসি।

Agricultural innovation fund vital investment for food security



DR M ABDUL MOMIN

Although agriculture's contribution to Bangladesh's economy has gradually declined in numerical terms over the years, its importance has not diminished in the slightest. Immediately after independence, agriculture accounted for nearly half of the country's GDP; by FY 2024-25, that share had fallen to around 11 percent. Yet even today, nearly 80 percent of the population—most of whom live in rural areas—are directly or indirectly connected to agriculture, while almost half of the country's workforce is employed in this sector. This apparent contradiction raises an important question: should investment in agriculture be reduced simply because its share of GDP has declined, or should greater emphasis instead be placed on innovation-driven investment? I believe the latter is the right path, with a dedicated, transparent, and competitively managed agricultural innovation fund at its core.

Let us take a closer look at what the budget figures of recent years reveal. Current data show that agriculture's share of the national budget has been steadily shrinking. In FY 2011-12, the sector received around 10.5 percent of the total national budget; by FY 2024-25, this had declined to approximately 6 percent. In the proposed FY 2026-27 budget, a combined allocation of about BDT 43,335 crore has been earmarked for the Ministries of Agriculture, Food, and Fisheries and Livestock, equivalent to just 0.63 percent of GDP. Of this, the Ministry of Agriculture's development budget has been increased to about BDT 7,946 crore, which is certainly a positive sig-

nal, but it remains insufficient in the broader context. At a recent seminar organized by the Bangladesh Agricultural Research Council, the Bangladesh Agricultural Economists Association called for allocating at least 9.5 percent of the national budget to agriculture, amounting to approximately BDT 88,350 crore. This demand is not merely a matter of arithmetic; it is grounded in the recognition that agricultural subsidies are not expenditures but long-term investments. Reducing such investment ultimately lowers production, increases import dependence, and makes inflation far more difficult to control.

There is, however, reason for

question, however, remains: are we investing at the level required to sustain this momentum?

However, one recent initiative by Bangladesh Bank offers a noteworthy example in this regard. A three-year refinancing fund of approximately BDT 3,000 crore has been established by utilizing the surplus liquidity of scheduled banks to promote agriculture and agro-based industries in the northern region—covering the Rajshahi and Rangpur divisions. Through this facility, loans of up to BDT 40 crore will be available for crop production, storage, processing, marketing, and export, while 15 percent of the total

First, the pressures of climate change are intensifying, making it imperative to accelerate the development of crop varieties and production systems that can withstand salinity, drought, excessive rainfall, and heat stress. Second, investments in cold chains, refrigerated storage, and processing technologies are urgently needed to reduce post-harvest losses. Third, young agricultural entrepreneurs and technology-driven startups—working in areas such as agri-information technology, drone-based monitoring, and precision agriculture—still face severe constraints in accessing risk capital. Conventional bank lending is poorly suited to the risk profile of

to private-sector participation.

What should an effective agricultural innovation fund look like? Several principles should guide the establishment of a National Agricultural Innovation Fund. First, it must be competitive, with funding allocated not on the basis of institutional identity but on the quality of proposals and their potential impact. This would ensure equal opportunities not only for public research organizations but also for universities, private research institutions, and young entrepreneurs. Second, the fund should incorporate regional flexibility, similar to the northern refinancing initiative, recognizing that the development needs of riverine chars, coastal areas, haor wetlands, and hill regions differ substantially. Finally—and perhaps most importantly—it must narrow the gap between innovation and field-level adoption. A superior variety or technology developed in the laboratory delivers little value if it takes years to reach farmers.

The declining share of agriculture in GDP is a natural consequence of structural economic transformation, as the industrial and service sectors expand. However, treating this transition as a justification for neglecting agriculture would be a serious mistake. Food security, rural employment, and inflation control all continue to depend fundamentally on the performance of the agricultural sector. The northern refinancing fund introduced by Bangladesh Bank and the increased development allocation for the Ministry of Agriculture demonstrate that policy commitment already exists. The next step is to bring these scattered initiatives under the umbrella of a coherent, long-term, and competitive National Agricultural Innovation Fund, enabling Bangladesh to safeguard its future food security by relying on its own scientific capacity in an increasingly climate-vulnerable world.

Over the past 52 years, from 1973 to 2025, Bangladesh's food grain production has increased nearly fivefold, rising from 11 million tonnes to about 50.3 million tonnes, with an average annual growth rate of approximately 3 percent.

optimism. Evidence consistently shows that investments in agricultural research and mechanization generate the highest returns. Between 2009 and 2023, nearly BDT 129,000 crore was disbursed as subsidies for agricultural inputs, while around 133,000 agricultural machines were distributed to accelerate farm mechanization. Over the past 52 years, from 1973 to 2025, Bangladesh's food grain production has increased nearly fivefold, rising from 11 million tonnes to about 50.3 million tonnes, with an average annual growth rate of approximately 3 percent. A significant share of this achievement can be attributed to the contributions of national agricultural research institutions, particularly the Bangladesh Rice Research Institute (BRRI) and the Bangladesh Agricultural Research Institute (BARI), through their development of high-yielding and stress-tolerant crop varieties. The

fund has been specifically earmarked for export-oriented agricultural products. The rationale behind this initiative is equally significant: despite the region's enormous production potential, inadequate post-harvest management, insufficient cold storage facilities, and weak marketing infrastructure have prevented that potential from being fully realized. Such targeted, region-specific financing demonstrates that the challenge is not merely a shortage of capital—it is also a shortage of institutional mechanisms. In the absence of a coordinated, competitive national agricultural innovation fund, research institutions, universities, private entrepreneurs, and farmer-led innovators are often forced to pursue promising ideas in isolation and with limited resources.

Why, then, is a dedicated agricultural innovation fund essential?

such ventures. What is needed instead is a grant-plus-loan financing model, under which the government shares part of the early-stage risk while enabling innovators to scale promising technologies.

The experiences of countries such as China, India, and Brazil clearly demonstrate that every unit of investment in agricultural research and innovation generates multiple returns over the long term, because innovation directly enhances productivity, reduces import dependence, and strengthens export competitiveness. Bangladesh has compelling evidence of its own. Without the improved crop varieties developed by BRRI and BARI, it is difficult to imagine the country's current level of food grain production. The real question is how this successful model can now be expanded, accelerated, and made more conducive

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