

A wake-up call on proprietary seeds

How India can shift its agriculture from a high-yield ideal to a high-value one



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"Where farmers could be using genetically distinctive seeds adapted to local conditions, they are adapting local conditions to use genetically standardised seeds, to ruinous effect." A farmer in Jammu. ■ REUTERS

When the news broke that PepsiCo was suing small farmers in India for growing a potato variety that is used in its Lay's chips, popular sympathies immediately went, of course, to the farmers. National and international pressure swiftly mounted, and in short order a humbled PepsiCo backtracked, announcing its withdrawal of the lawsuit. There was global schadenfreude at Goliath's PR disaster and, in India, pride at being on the side of the righteous Davids.

What should not be a source of pride, however, is the fact that so many small farmers are, like the ones targeted by PepsiCo, reliant, directly or indirectly, on proprietary seeds. Typically these seeds are grown in high input (fertilizer-pesticide-irrigation) environments that, over time, erode local biodiversity. Between the expense of buying these seeds and inputs, and the loss of the skills and social relationships needed to do otherwise (through the saving and exchange of seeds of indigenous varieties), small-scale farming looks set to continue on its downward spiral of lower income, status and dignity.

It's time for a paradigm shift

No one can blame farmers for thinking that proprietary seeds are better. Since the days of the Green Revolution, agricultural extension officers – the field representatives of agricultural modernity – have taught farmers to buy ever-higher-yielding seeds. Taking this science-and-industry-know-best stance on seed quality a little further, efforts have been ongoing, albeit unsuccessfully due to pressures from farmers and NGOs, to pass a new seed law in India permitting the sale of certified seeds only.

In the current Indian law regulating intellectual property rights in seeds, the Plant Variety Protection law, this same official preference for the proprietary takes a different form. The law permits farmers not only to save and resow (multiply) seeds, but also to sell them to other farmers, no matter what the original

source of the seeds is. This broad permission (called farmers' privilege) is considered indispensable for so-called seed sovereignty, which has become synonymous with permitting farmers to save, sow, multiply and use proprietary seeds, as well as proprietary vegetative propagation materials such as what are used for the cultivation of potatoes. Despite the shift away from seed replacement to the right to save seeds, the emphasis remains on proprietary seeds that have narrow, uniform and non-variable genetic builds. Where farmers could be using genetically distinctive seeds adapted to local conditions and farming traditions, they are instead adapting local conditions and traditions in order to use genetically standardised seeds, to ruinous effect.

It is time for a paradigm shift. To get a sense of what can be done, it may be useful to take a peep into recent regulatory efforts in Europe. The EU Regulation on Organic Production and Labelling of Organic Products, adopted in 2018, for the first time permits and encourages, inter alia, the use and marketing for organic agriculture, of "plant reproductive material of organic heterogeneous material" without having to comply with most of the arduous registration and certification requirements under various EU laws. Heterogeneous materials, unlike current proprietary seeds, need not be uniform or stable. Indeed, the regulation clearly acknowledges based on "Research in the Union on plant re-

productive material that does not fulfil the variety definition... that there could be benefits of using such diverse material... to reduce the spread of diseases, to improve resilience and to increase biodiversity." Accordingly, the regulation removes the legal bar on marketing of "heterogeneous materials" and encourages its sale for organic agriculture, thus clearing the way to much more extensive use of indigenous varieties.

Once the delegated acts under the EU regulation are formulated, they will support the creation of markets, especially markets and marketplaces facilitating trade of heterogeneous seeds, including by small farmers who are currently the most active in maintaining and improving such seeds in situ. Indeed, multimillion-Euro research and innovation projects being invited and funded by the EU already aim to make this diversity a more integral part of farming in Europe. And here they are talking only of the diversity within Europe.

Minimise harm, maximise gain

How can a biodiversity-rich nation like India shift its agriculture from a high-yield ideal to a high-value one, where the 'values' include striving to minimise environmental harm while maximising nutritional gains and farmer welfare?

First, small farmers must be educated and encouraged with proper incentive structures, to engage with agriculture that conserves and improves traditional/desi (heterogeneous) seeds in situ, rather than with

"improved", proprietary varieties. Currently, in the garb of protecting this diversity against biopiracy, India is preventing its effective use, management and monetisation for the benefit of its farmers.

Second, an immutable record-keeping system, perhaps blockchain or DLT, is needed to break the link between the profitable and the proprietary. Such a system would allow India and its rural communities to keep proper track of where and how their seeds/propagation materials and the genetic resources contained therein are being transferred and traded. It would also ensure, through smart-contract facilitated micropayments, that monetary returns come in from users and buyers of these seeds, from around the globe. These monetary returns would effectively incentivise continuous cultivation and improvement of indigenous seeds on the one hand, and ensure sustainable growth of agriculture and of rural communities on the other.

Third, and as a key pre-requisite to the execution of the first two plans, India's invaluable traditional ecological knowledge systems need to be revived and made a part of mainstream agricultural research, education and extension services. Know-how contained in ancient Indian treatises like the *Vrikshayurveda* and the *Krishhi Parashar* falls within the scope of what international conventions such as the Convention on Biological Diversity refer to as 'indigenous and traditional technologies'. The revival of these technologies is central to promoting sustainable 'high value' agriculture, not least because of the growing global demand for organic and Ayurvedic products.

The withdrawal of the lawsuit by PepsiCo may be a welcome relief to several farmers who can neither afford to defend themselves in court, nor to abandon the cultivation of proprietary varieties. It must, however, be a wake-up call to the government and policymakers who need to do much more to secure sustainable rural societies, protect soil health and promote seed sovereignty for the economic development of Indian farmers and of the entire nation.

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The anatomy of a marginalised region

With a high percentage of Muslims, Bihar's Seemanchal region frames issues of representation and welfare



SHAHANA MUNAZIR

In the ongoing general election, Seemanchal, a historically neglected and yet socially and politically significant region in Bihar, has once again registered a high voting percentage. Comprising four districts – Purnea, Katihar, Kishanganj and Araria – Seemanchal has a population of about 1 crore. It assumes sociopolitical significance owing to the large proportion of Muslims in its population. On average, these districts have 47% Muslims as against Bihar's Statewide average of 17% and the all-India average of 14%. In this election, of the nine Muslim candidates who have been chosen by different parties in Bihar, five are contesting from constituencies in Seemanchal. The region is a fertile ground for political parties that pit Hindus against Muslims.

Continued neglect

It may have political and symbolic value, but Seemanchal fares poorly on welfare indices. It is an example of political apathy towards the minorities. According to Census data, the average literacy rate of the four districts is 54% as against Bihar's average of 64%. The average per capita district GDP of the region is ₹10,000, while it is ₹14,574 for the State. In districts with a higher density of Muslims, the situation is worse. For example, in Kishanganj, with a 68% Muslim population, nearly 50% live below the poverty line.

The socioeconomic indicators may be woeful, but there has been remarkable enthusiasm in electoral participation, seen in the last six general elections. This year, Seemanchal saw a voter turnout of 64.8%, which was much higher than Bihar's average of 58.6%. In the last five general elections, the average voter turnout in Seemanchal was around five percentage points more than the average turnout for the State. Clearly, the voters in the region care about exercising their franchise. They believe that their electoral participation can make a difference to their dismal socioeconomic situation. But why is an electorate with such a dominating presence helpless in this region? What explains their continued neglect despite having elected influential leaders in the past, such as M.J. Akbar, Tariq Anwar and Pappu Yadav?

Both Muslim vote bank politics and the

political ghettoisation of Muslims have given rise to identity politics in Bihar. In recent years, polarisation has demonstrated that a party can secure majority votes without accommodating Muslims. Such political non-mobilisation of Muslims has resulted in two things. One, it has led to the idea that Muslims are a homogenised community who root their politics in religion. Two, it has led to Muslims relegating themselves to the background of active politics.

A welfarist agenda

This should stop with Seemanchal. Despite constituting a high percentage of the voting population in the region, Muslims have not been able to assert themselves. As a result, parties have used them as bait to get parachute candidates elected. These candidates secure votes in the name of protecting a misunderstood and universal idea of 'Muslim identity' and not to improve their welfare in the region. For example, Asaduddin Owaisi's All India Majlis-e-Ittehadul Muslimeen (AIMIM) contested in the region in the 2015 Assembly election, but it failed to win even a single seat. Yet, again the AIMIM has pinned its hopes on Akhtarul Iman from Kishanganj this time. These Muslim parties have failed to gain a stronghold in the region because Muslim voters have opted for a welfarist agenda and not one that is centred on their religious identity alone.

Further, even within the Muslim community, there is marginalisation of backward Muslims such as the Pasmandas who are represented not by their own but by the upper caste Ashrafs. Since the 1990s, the assertion of rights by groups such as the Pasmanda Muslims paved the way for inclusivism and social justice. In this context, Seemanchal can be a fertile ground for the emergence of rights-based politics. The struggle of Pasmandas and their under-representation in politics have been largely ignored. In Seemanchal, though Pasmandas constitute two-thirds of the Muslim population, there is no Pasmanda candidate for the elections. Late-ly, Chief Minister Nitish Kumar and the BJP have espoused concerns about backward and Dalit Muslims, but more in rhetoric than in action.

Contrary to popular perception, Muslims do not always prefer en bloc voting along religious lines. In Seemanchal, specifically, they are divided by caste, class and language, and vote for leaders they think will address their deprivations. It is high time our concerns move beyond politics and religion.

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SINGLE FILE

Taking tensions seriously

A true strategic partnership between India and the U.S. remains elusive

MICHAEL KUGELMAN



The U.S.'s decision to not extend Iran sanctions waivers, including the one provided to India, has notable implications for India-U.S. relations, given the importance of New Delhi's energy relationship with Tehran. It comes on the heels of many other deleterious developments for bilateral ties

including the U.S.'s decision to withdraw GSP benefits for Indian exports (in retaliation for Indian tariffs that the U.S. deemed to be prohibitively high) and the Trump administration's discontent deepening over India's policies on e-commerce, intellectual property rights and data localisation.

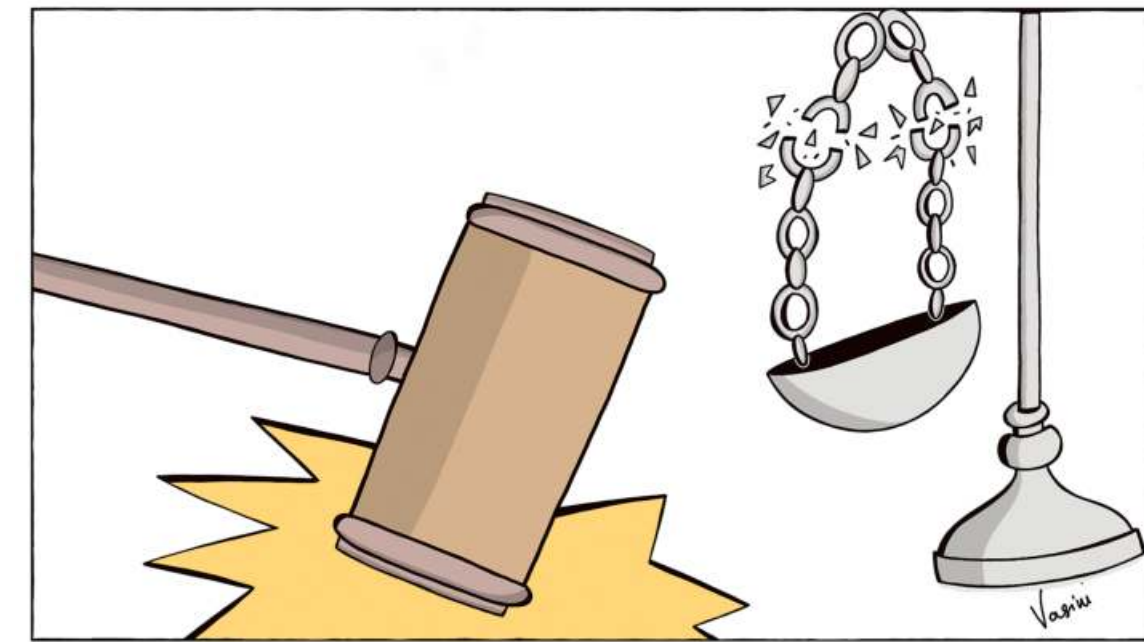
These India-U.S. trade and economic tensions aren't new; the non-security dimension of the relationship has long lagged behind the fast-growing defence side. Still, the complaints and perceived grievances, especially from the U.S., have seemingly intensified in the Trump era.

Both sides have played down these differences and offered reassuring data points: India will scale up oil imports from other top producers; the GSP withdrawal will have minimal impact on India's economy; the two capitals are working actively on high levels, most recently through the U.S.-India CEO Forum and the India-U.S. Commercial Dialogue, to ease tensions; and above all the strength of the bilateral relationship can easily withstand all these headaches.

This is all true. But let's be clear. A full-fledged strategic partnership, which both countries endorse, will be difficult to achieve amid such multiple and long-standing disconnects on the trade and economic side. Indeed, if bilateral ties are largely driven by technology transfers, arms sales, joint exercises, and foundational agreements on defence, this amounts to a deep but one-sided security relationship, and not a robust and multifaceted strategic partnership.

To be sure, India-U.S. relations extend well beyond security. Recent joint statements have dwelt on the potential for cooperation on initiatives ranging from clean energy to innovation. And despite the problems, bilateral trade in goods and services has increased over the last decade. Still, so long as the non-security nuisances affect the bilateral relationship, the shift from a strong security relationship to a bonafide strategic partnership will be difficult. After all, one rarely hears complaints or concerns about trade and economic matters in the U.S.'s relations with the U.K., Australia, or Israel, some of its other strategic partners. The U.S. and India have long struggled to agree on what a strategic partnership should look like. Still, no matter how it is defined, any strategic partnership must be broad-based, with trust and cooperation present across a wide spectrum of issues and not just limited to close collaborations in the guns-and-bombs category. In this regard, a true strategic partnership remains, at least for now, elusive between India and the U.S.

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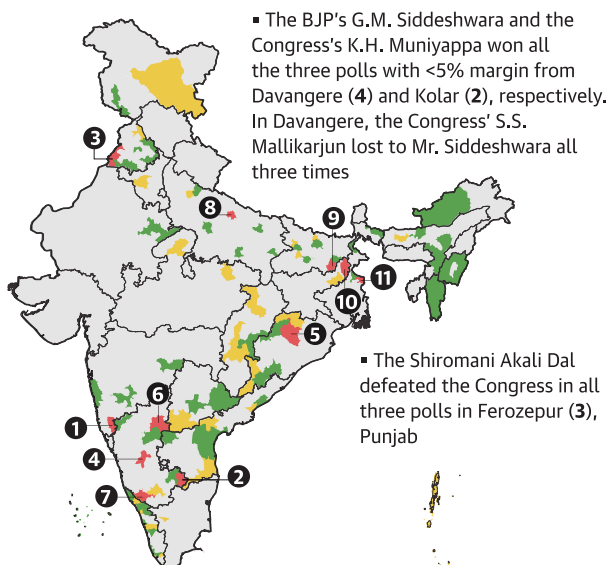
DATA POINT

Cliffhanger seats

In 2014, 96 Lok Sabha seats had a win margin of less than (<) 5%. Of the 96, in 32 seats, the win margin was <5% in 2009 too. Of those 32, in 11 seats, the win margin was <5% in 2004 too. The southern States, especially Karnataka, saw a high share of these close calls. By **The Hindu data team**

Mapping the thrillers

Seats in red saw a win margin of <5% in 2014, 2009 and 2004. Seats in yellow saw a <5% win margin in 2014 and 2009 but not in 2004. Seats in green saw a <5% win margin in 2014 but not in 2009 (the win margin of these seats in 2004 was not considered for analysis)



- 1) Kolhapur, Maharashtra 5) Sambalpur, Odisha 6) Raichur, Karnataka
- 7) Mysuru, Karnataka 8) Sitapur, Uttar Pradesh 9) Banka, Bihar
- 10) Rajmahal, Jharkhand 11) Murshidabad, West Bengal

* Data sourced from Richie Lionell who works at Gramener Inc

On the fence

The table lists the seats where win margins were less than 5% in the last three elections. For instance, in A.P., a win margin of <5% was seen in 15 seats in 2014. In 6 of those, the win margin was <5% in 2009 as well. This was not the case in 2004 in those seats

State	Seats with <5% winning margin			
	2014	Only 2014	'09 & '04	2014, '09 & '04
A.P.	15	9	6	0
Karnataka	8	3	1	4
Kerala	13	8	5	0
T.N.	1	0	1	0
U.P.	7	5	1	1
J&K	5	1	3	1
Punjab	6	4	1	1
Haryana	1	0	1	0
Arunachal	1	1	0	0
Assam	4	3	1	0
Manipur	1	1	0	0
Mizoram	1	1	0	0
Maharashtra	4	3	0	1
Rajasthan	2	2	0	0
M.P.	2	0	2	0
Chhattisgarh	4	1	3	0
W.B.	4	3	0	1
Odisha	5	2	2	1
Bihar	9	5	3	1
Total	96	53	32	11

FROM The Hindu. ARCHIVES

FIFTY YEARS AGO MAY 9, 1969

Russia may give more aid to India

The Defence and Foreign Affairs Committees of the Union Cabinet will meet soon to assess the wider political and military implications of the current Soviet approach to Indo-Pakistan and Sino-Indian problems as enunciated by the Soviet Premier, Mr. Kosygin, in his talks with Mrs. Indira Gandhi here [New Delhi] this week. Mr. Kosygin is reported to have stressed once again that, while the Soviet Union did not foresee the possibility of another Indo-Pakistan conflict, it was not ruling out the danger of renewed Sino-Indian border clashes so long as China persisted in its militant policy of territorial claims backed by threats of force. The Soviet Defence Minister, Marshal Grechko, said the same thing during his recent visit to India which coincided with the Sino-Soviet border incidents in the Ussuri river region. He, too, had emphasised the need for continued vigilance on India's northern borders to meet the Chinese threat.

A HUNDRED YEARS AGO MAY 9, 1919.

The Malabar Conference.

(From an Editorial)

The addresses delivered and the Resolutions passed at the fourth session of the Malabar District Conference point as much to the fact that such functions may be conducted with success and in a satisfactory manner in spite of some differences of opinion on the part of some of the leaders as to the real trend of public opinion in the country. The Chairman of the Reception Committee, a leader of the aristocracy, as well as the President of the Conference laid emphasis on the pernicious manner in which the Rowlatt blunder has been committed, its possible consequences in the light of our experience of the way in which executive discretion, wherever allowed, has been exercised, the need for the reversal of the present repressive policy and its replacement by a liberal one.

POLL CALL

Model Code of Conduct

The Model Code of Conduct refers to a set of norms laid down by the Election Commission with the consensus of political parties in order to ensure free and fair elections. Parties and candidates are expected to follow the model code in their election manifestos, speeches and general conduct. The model code is not statutory. It comes into force on the announcement of the poll schedule and remains operational till the election process is concluded. In case parties/ candidates violate the model code by making hate speeches, intimidating voters, providing inducements to voters, etc., the Election Commission is expected to take action against them.

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