

Firms are buying more green power

Globally, power purchase agreements for renewable energy signed by corporations have already crossed the 15 gigawatts mark this year



VANDANA GOMBUR

There are two main reasons that companies contract to buy green power: it is cheaper and cleaner. The first reason is the dominant one for commercial and industrial (C&I) power consumers in India, who see their power bill being slashed as they opt for cleaner solar and wind power. The second reason plays a much bigger role for companies that have set sustainability goals, which typically include clean power

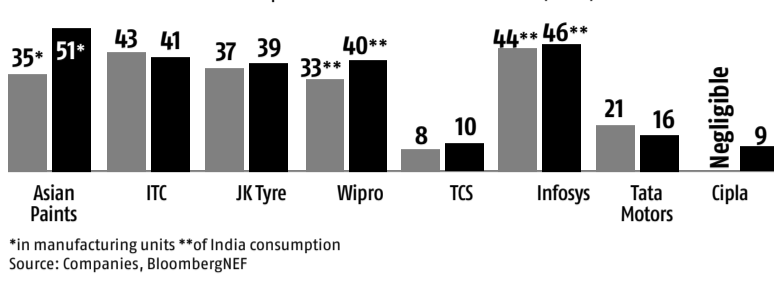
consumption targets.

C&I customers in India pay a premium price for power, as they cross-subsidise residential and agricultural users. A shift to renewables thus leads to immediate savings. Clean energy companies such as CleanMax Solar focus on supplying clean power to C&I clients. "We are delivering renewable energy 30 per cent cheaper than grid power, despite the surcharges," Kuldeep Jain, managing director of CleanMax Solar told BloombergNEF in an interview last month.

Companies serving C&I clients are seen as promising by international investors. Half a dozen deals have been announced in this space in 2019: Malaysia's Petronas decided to buy 100 per cent of Amplus Solar for about \$390 million. Royal Dutch Shell decided to acquire 20 per cent of Orb Energy and more recently, Bharti Airtel bought a 26 per cent stake in a subsidiary of AMPSolar.

GREENING CORPORATES

Renewables share in consumption: ■ 2017-18 ■ 2018-19 (in %)



Indian companies that make the list of 207 companies committed to be 100 per cent powered by renewable energy include Infosys, Tata Motors and Dalmia Cement, among others. Tata Motors last year had a financial saving of Rs391 million, and avoided emissions of 77,333 tons of CO2 equivalent, by sourcing 94 million units of renewable energy for its manufacturing operations, according to

its latest (2018-19) annual report.

There are many other Indian companies that are buying renewable energy without having an aggressive 100 per cent target: Tata Consultancy Services got 10 per cent of its power from renewables, and aims at a 20 per cent share by 2020. About 41 per cent of ITC's power consumption came from renewables last year, and the target is to move toward 50

per cent. In the case of Asian Paints, half the electricity consumed at the manufacturing units was sourced from renewables. JK Tyre went from a less than 5 per cent share of renewable energy in its 2015-16 consumption, to 39 per cent last year, and it aims to increase this share every year.

Globally, power purchase agreements for renewable energy signed by corporations have already crossed the 15 gigawatts mark this year, well above 2018's record of 13.6 gigawatts, according to data tracked by BloombergNEF. The bulk of these contracts are signed in the US by companies like Walmart and Amazon. Google has signed the most contracts in 2019 so far, with over 1.5 gigawatts procured from solar and a little over 1 gigawatt from wind. Last week, Royal Dutch Shell agreed to buy, under a 15-year purchase agreement, all the power from EDP Renewables' 200 megawatts Sandrini solar plant coming up in California.

Residential households wishing to consume clean power in India can set up solar on their rooftops, but don't have the option to go 100 per cent renewables yet.

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CHINESE WHISPERS

Political healer



Despite all the political turmoil, Bharatiya Janata Party (BJP) leaders Harshvardhan Patil and Ashish Shelar met Shiv Sena MP Sanjay Raut, 57, at the Lilavati Hospital in Mumbai,

where he underwent angioplasty. Shiv Sena chief Uddhav Thackeray (pictured) on Tuesday also met Raut and later said the Rajya Sabha member was recovering fast. Shelar said: "It is Maharashtra's culture. We meet people who are unwell, regardless of political differences." Nationalist Congress Party chief Sharad Pawar also met Raut at the hospital in the morning. Raut, editor of the Shiv Sena mouthpiece, *Saamna*, led the party's charge to seek an equal share in power with the BJP after the Assembly polls in Maharashtra.

Rajya Sabha vacancies

Three of Madhya Pradesh's 11 Rajya Sabha seats will fall vacant in April next year. The tenures of Congress General Secretary Digvijaya Singh, Bharatiya Janata Party (BJP) National Vice-President Prabhat Jha, and BJP leader Satyanarayan Jatvi will expire on April 9, 2020. Of the three, the Congress and the BJP are expected to win one seat each comfortably. For the third seat, the Congress appears to have an upper hand. The party has direct support from 115 MLAs and another six are supporting it indirectly. Among the three contenders for the two seats expected to go to the Congress are Deepak Saxena, who vacated his Assembly seat for Chief Minister Kamal Nath and appears to be the firm favourite, Singh, and Jyotiraditya Scindia.

Musical chairs

The coveted post of official spokesperson of the Uttar Pradesh government, chosen from among ministers, appears to be troubled. Soon after the Bharatiya Janata Party (BJP) came to power in March 2017, cabinet ministers Sidharth Nath Singh and Shrikant Sharma, who held the portfolios of health and energy, respectively, were appointed state government spokespersons. In August 2017, Singh came under attack over encephalitis deaths in Gorakhpur. Although he appeared to survive the crisis in the immediate aftermath, he was removed as health minister in a cabinet reshuffle earlier this year. Now, with the state government ordering a CBI probe into the investment of the UP Power Employees' Provident Fund in scam-hit Dewan Housing Finance Corporation, Sharma is facing the biggest challenge of his tenure. As opposition parties bay for his blood, observers say it's only a matter of time before he's eased out.

The dulling of gold jewellery

The lack of a coherent policy and the unwillingness of Indian jewellers to reform are tarnishing the industry

RAJESH BHAYANI

In 2010, India's gold demand for jewellery and investment was 1,001 tonnes. China's was 676 tonnes. By 2018, China was consuming 1,058 tonnes whereas India's demand had dropped to 760 tonnes (and is likely to fall further in 2019), according to World Gold Council data.

This dramatic reversal in the gold economies of Asia's two largest countries isn't restricted to demand patterns. China is also the world's largest gold producer. And India, despite being a major consumer, is unable to influence global prices. An Indian-indexed gold price, a dream one and half decades ago, is still a dream.

Much of this asymmetry has to do with the manner in which the jewellery industries in both countries have shaped up. In the past decade, India's annual jewellery demand has averaged 609 tonnes against China's 737 tonnes. Given the near-constant demand from India's matrimonial market, why has China overtaken India?

Somasundaram PR, managing director, India, World Gold Council, says, "China's demand has been supported by conducive policies and infrastructure, and a significant drive towards innovation by the trade. This can happen in India, without impacting the current account deficit, but an effective

policy framework is necessary."

China's biggest infrastructure decision was setting up the Shanghai Gold Exchange in 2002. All gold, including the 400 tonnes a year that is mined and produced locally, has to be routed through it. In 2014, this trading system was expanded when the Shanghai International Gold Exchange was set up in the free trade zone, creating a global ecosystem for the industry.

Four years ago, Department of Economic Affairs Secretary Shaktikanta Das (now central bank Governor) proposed a gold exchange. Later, several meetings took place in the finance ministry for a NITI Ayog submitted a report on in February 2018. Nothing has happened since.

Jewellers also focused on innovations to grow demand. Chirag Sheth, senior research consultant, South Asia, Metals Focus, an independent precious metals consultancy, said, "China has really scored over Indian jewellers with innovation and product lines for the young. India's jewellery market remains largely confined to the bridal market."

One such Chinese innovation is "mirror gold", which has a smooth, reflective surface and is a hit with younger consumers. China has also developed technology that hardens gold, a soft metal that requires the addition of alloys for jewellery making, and enables jewellers to make jewellery with high purity gold. India doesn't

produce gold ornaments of even 999 (three 9s) or 995 (two 9s) purity.

The most successful innovation is in the 3D printed "hard gold" market, which caters to consumer appetite for smaller, more trendy pieces — typically weighing 1-2 grammes. Indian jewellers scarcely have products to suit millennials. Few young Indian women today wear saris and the cohorts joining the white-collar workforce prefer lighter jewellery, one reason platinum and silver jewellery imports are making inroads in India.

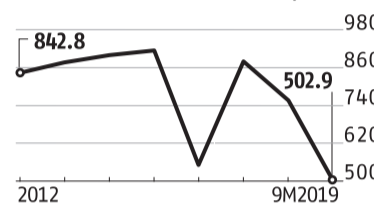
At least part of the reason for Indian jewellers' slow response is that, jewellery demand has been resilient despite stiffer compliance measures, so the impulse for change is weak.

Though India is the largest gold importer, the country lacks a programme to support gold mining. The 11th plan document (2007-12) noted that it was possible to bring 17 new gold mines into production. The government set a goal to reach annual production of 100 tonnes gold per annum by 2025 against 2-3 tonnes currently. A working group in the ministry of mines put the total reserve base (as on April 1, 2011) at 658 tonnes spread over 13 states.

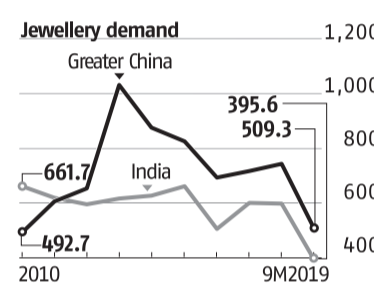
The economic slowdown is one reason the gold policy has not been a priority for the government. Some moves at self-regulation are taking place at the association level but a consensus among the hundreds and thousands of jewellers has proved elusive — because they are uninterested in reform. Most jewellers are happy if mandatory hall-marking were delayed and to continue

FADING GLITTER

India gold supply estimates (tonnes): Net bullion imports



Gold demand



with cash transactions and bullion traders prefer to continue dealing offline. Therefore, gold smuggling flourishes — the value of smuggled gold in this year of weak demand is an estimated \$5 billion-plus. It is only now that the \$75 billion Indian jewellery business has acquired a modicum of transparency, but organised and online jewellers account for just a third of the business.

Stiff regulations against taking deposits from customers have hindered few jewellers who continue to leverage personal trust equations with customers. Some of them take the money and disappear. They are unlikely to support regulation and transparency.

Jewellers persist with deposit-taking because banks shy away from lending to them. So customer deposits remains a multi-billion dollar channel for funding. Big customers, whether

they hold gold legally or otherwise, lend to jewellers in the informal market where few banks are active. There are two types of bank financing. One is lending physical gold known (gold metal loan) and the other is providing collateral finance and working capital. On an outstanding basis annual gold metal loans are only around 120 tonnes or a fifth of jewellery demand.

Says Somasundaram, "There is no agreement on even fundamental issues such as generating trust or fostering innovation or making a strong case for gold. There is overwhelming focus on duty reduction [on imports] which is self-inhibiting."

This is ironic because a coherent and transparent market would enable Indian jewellers to make the great leap forward to catch up with China in an industry that was once a traditional strength.

INSIGHT

Development economics after the Nobel Prize

In a world of crushing inequality and aggregate demand stagnation, the new laureates bring some cheer in showing us that incremental changes pursued steadfastly can add up to a lot



PRANAB BARDHAN

As a development economist I am celebrating, along with my co-professionals, the award of the Nobel Prize this year to three of our best development economists, Abhijit Banerjee, Esther Duflo and Michael Kremer. Even though the brilliance of these three economists has illuminated a whole range of subjects in our discipline, invariably, the write-ups in the media have referred to their great service to the cause of tackling global poverty, with their experimental approach, particularly the use of Randomized Control Trial (RCT).

Of course, the Prize as such is not for great policy achievements in poverty reduction (if it were, the Chinese policy-makers enabling the lifting of nearly half a billion people above the poverty line in their country would have got prior attention), but for methodological breakthroughs, which the pioneering effort in extensive application of RCT in field experiments in several poor countries clearly is.

I should also proudly point out that these three economists did some of their major work while they were active members of a MacArthur Foundation-

funded international research group on Inequality that I co-directed for more than 10 years starting in the mid-1990's. Duflo was the youngest member of our group; incidentally, the French speakers (including, apart from Duflo, Thomas Piketty, Philippe Aghion, Roland Benabou, and Jean-Marie Baland) and the Bengalis (apart from myself, Abhijit Banerjee and Dilip Mookherjee) were together nearly half in strength in this group of about 18 members from different countries and social science disciplines.

The media write-ups on the Nobel Prize (including in leading magazines like *The Economist*), however, give a somewhat misleading impression about the evolution of thinking in development economics, as if after decades of pontification on structural transformation and prudential macro-economic policy and associated cross-country statistical exercises to understand the mainsprings of growth and development, the practitioners of RCT finally came along focusing our attention to the micro level, and providing us with a magic key, the so-called 'gold standard' in assessing poverty alleviation policies, telling us what 'works' at the ground level of policy intervention and what does not.

First of all, this kind of write-up shows some ignorance of a large, several-decades long (starting at least in the 1970s), literature in development microeconomics, both theoretical and empirical, the latter often applying non-experimental methods to scrupulously collected field-level data (measuring at least up to a 'silver' standard from the point of view of avoiding various kinds of statistical bias) to a diverse range of important policy and

institutional questions related to the roots of endemic poverty.

Secondly, there have been critics of the application of RCT (including some Nobel laureates) and doubts about how 'golden' the standard really is and how generalisable and reliable the micro results are. To be fair, the current laureates have responded to these critics in their recent work, trying, for example, to face the issues in scaling up their results from the individual micro studies.

Thirdly, there are diverse ranges of pressing development policy questions where the method of RCT, by its very nature, cannot be applied at all (for example, in many types of monetary-fiscal policy issues or questions like where to locate a power plant or a port or the feasibility of other infrastructural projects), even though here too the experimental approach has now been diversified beyond the earlier pre-occupation with health and education interventions in localised contexts to, for example, larger issues of governance or information networking.

The profession of development economists should be grateful to the new laureates (as well as to the four laureates earlier — Lewis, Schultz, Sen, and Deaton) for bringing the limelight to their particular field, which for too long has been relegated to the periphery of the subject of Economics, even though the forefathers in the discipline — the classical economists — were all development economists as they were writing about a developing economy (more often than not, Britain) that was going through a major industrial transformation in the late 18th and the early 19th century. With the glitter of the

Prize and the associated public attention more of the younger generations of bright people are now likely to be attracted to this field.

But there is also a risk that the glamor of RCT may divert attention from some of the big questions of development economics that remain unresolved. I think the new laureates will agree with me that we do not still have a clue why some developing countries succeed (some of them in East Asia), and why others do not, and why some initially successful cases cannot escape from stagnating at the middle stage. Why do some dysfunctional institutions persist? Why is it so difficult to create good jobs for the restive young population in today's poor countries aching to get out of the low-productivity informal sector? What are the ingredients of state capacity involved in making industrial policy more of a success in East Asia than elsewhere? Are these mere historical contingencies or are there meaningful patterns in the diverse case studies?

Our discipline is as yet in its infancy in understanding the forces and motivations behind formations of political coalitions and different kinds of group bargains that work in different historical contexts, which underpin the process of institutional change or atrophy. Taking the major coordination mechanisms of any economy — the market, the state, and the community — we are now as familiar with their 'failures', as with their successes; but how to strike a balance in their operation so that we can sustain their advantages without getting crippled by their failures? It may be premature to try to answer these questions with

the same methodological fastidiousness with which the experimental approach to global poverty alleviation policies is now handled. But I think in its search for theoretical and empirical rigor the profession undervalues the need for in-depth country or regional studies of political and economic processes, which sometimes provide deeper insights into the origin and persistence of poverty than those gleaned from either cross-country standardized data or micro experiments. The latter may be more journal-publishable or headline-grabbing, but not necessarily more valuable in the larger scheme of things.

In a world of crushing inequality and aggregate demand stagnation and the associated political-economy impasse and the prevailing macro-pessimism, the new laureates bring some cheer in showing us how changes at the margin and small policy improvements are feasible using statistically 'clean' methods, and that incremental changes steadfastly pursued can add up to a lot. While we should be thankful for such mercies (which are often the outcome of a great deal of research effort and money — for RCT's are usually frightfully expensive), the way experimental methods have now swept most other types of research work in development economics off the radar (and the top journals), one can only hope that the Prize, instead of exacerbating this trend, will reinvigorate the whole field and encourage diverse attempts to understand a whole range of issues, big and small.

The article was first published on 3 Quarks Daily. The writer is professor of Graduate School at University of California, Berkeley

LETTERS

Convincing judgment

This refers to "Awaiting real closure" (November 11). It is well established in the law of evidence that it is only in criminal cases that the evidence required is to establish beyond a reasonable doubt. In civil cases, the evidence required is only by preponderance of the evidence. It is often that the judge has to persuade himself to lean on one side as opposed to the other. If the evidence is not quite clear cut, the principle that the judge has to follow in civil cases is the preponderance of probability. The opposite can never be true. We cannot enter here what evidence the five judges of the Supreme Court considered as preponderant in favour of the conclusion that the disputed land was used more by one side rather than the other. On principle, the judgment is perfectly legal and convincing.

Sukumar Mukhopadhyay
via email

Find a middle ground

This refers to JNU students' protest over fee hike. There is no doubt that there has been a significant hike in both the hostel room fee and one-time mess fee but we also need to ponder how long will the state exchequer keep funding JNU students' subsidised education. The monthly Rs20 fee for a hostel room is something that really needed to be changed -- by how much is something that could have been discussed with the stakeholders. There should be a hike that should not pinch too much as students from all sections of the society come to study there. While the authorities need to revisit the proposed fee hike, students also need to introspect why there should not be a basic hike in their fees when they are being part of one of the most sought after universities in the country. There has to be some rationality in this entire issue.

Bal Govind Noida

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Come clean on fisc

Govt must not conceal how slowdown is impacting revenue

The government is facing a fiscal crisis amid a slowdown that appears to be intensifying. This is the only conclusion that can be drawn from the recent release of the updated data. The index of industrial production (IIP) fell for a second consecutive month in September, this time by 4.3 per cent. This was after a 1.4 per cent fall in August. The September contraction is the highest since the new series of the IIP was introduced in 2012, and compares only to a 5 per cent drop in October 2011, when the post-crisis stimulus began to lose its effect and India was moving towards a long slowdown. While the IIP is often justly criticised for flaws or for being over-responsive to certain sectors, it is likely that the second quarter figures for gross domestic product will reflect this slowdown in industrial output.

Meanwhile, the government has also released its figures for revenue and spending in the first half of the fiscal year. It has spent ₹13.44 trillion of its Budgeted spending of ₹27.86 trillion, and its receipts are ₹8.37 trillion out of a Budgeted figure of ₹20.82 trillion. While the proportions that have been spent are in line with past trends, the fact is that the actual for last year featured a considerable revenue shortfall. As a consequence, the final Budget numbers were criticised for having a deceptive figure as the fiscal deficit number, since it did not really represent the scale of public-sector borrowing. The government shovled some of the responsibility for financing its expenditure on to public-sector enterprises which borrowed in the market. Even if revenue grows as expected, a similar exercise will likely have to be carried out this year, further impacting the credibility of government numbers.

However, the position this year might be even worse than the last year, when concerns about tax collection are taken into account. This newspaper has reported that the income tax department will ask for a further reduction in the targets for direct tax mop-up in the ongoing financial year, perhaps by as much as ₹1 trillion. Corporation tax was budgeted to grow by over 15 per cent in the full year, but has in fact grown by only 0.5 per cent till October, while personal income tax grew by a healthier 5 per cent — but against a target of over 22 per cent. Given that corporation tax rates have been slashed, increasing direct tax collection by 30 per cent or so, required in order to meet Budget targets over the remaining months of the financial year looks unlikely. The government has sought to rein in aggressive actions by tax officials. How it will otherwise meet its targets remains a mystery.

The Budget drafting process will start soon. It is for the government to provide a clear, transparent, and accurate picture of India's troubled finances in order to restore its lost credibility. It is already clear to observers that the numbers are not good; the Budget should not seek to conceal the true situation.

Ground realities

Minimum wages should meet present-day requirements

Three months after the Code on Wages, 2019, came into being, the government has come up with draft rules stating the manner in which the minimum wages will be determined. According to the draft rules released by the labour and employment ministry recently — Code on Wages (Central) Rules, 2019 — minimum wages should be set keeping in mind the needs of a worker's family of three. It has prescribed that the minimum wage be fixed by determining the monetary value of net food intake of 2,700 calories per day for a working person and 66-metre cloth per year for the whole family, along with a certain share of expenditure on house rent, electricity, fuel, children's education, medical requirements, recreation, and contingencies.

It has also proposed categorising 681 professions into four different skill-based baskets: Unskilled, semi-skilled, skilled, and highly skilled, each of which will have a different set of minimum wages, along with differences based on geography — metro, non-metro, and rural areas. It is laudable that the government has sought to prescribe a formula in the rules for calculating the minimum wage for workers compared with the erstwhile Minimum Wages Act of 1948, in which the standard methodology or guidelines for fixing the minimum wages were missing. As a result, the state governments and the Centre mostly relied upon norms recommended by the Indian Labour Conference (ILC) in 1957 to fix minimum wages. The recommendations were subsequently strengthened by a Supreme Court judgment in 1992, popularly known as the Reptakos judgment. The government's draft rules intend to follow the ILC recommendations and the Reptakos ruling — the spirit of which was followed by the Seventh Pay Commission.

However, at a time when the government is planning to reset labour law legislation and combine 35 labour laws into four codes, policymakers would do well to use some evidence-based analysis and take into account current realities, rather than following the ILC recommendations, made more than six decades ago, and the Supreme Court's advisory, which came almost three decades back. It is vital to follow a need-based approach, but have the needs of workers in India remained the same in over 60 years? A government-appointed committee on setting minimum wages, which made its report public in February, found a declining trend in terms of calorific requirements of Indians. Based on scientific analysis, the committee found that the consumption pattern of workers in India has changed to a food net intake of 2,400 calories, along with 50 grams of protein and 30 grams of fat per day. It even recommended increasing the size of the households, while fixing the minimum wages, from 3 to 3.6 units, based on the latest available NSSO survey.

Further, the Centre should not complicate the minimum wage system by prescribing wages based on skills, including the "highly skilled" category. While industry should be given a free hand in deciding the level of wage for skilled workers, the Centre can instead fix a different set of minimum wages involving arduous work — a key element of the Code on Wages, 2019, surprisingly missing in the draft rules. The norms are important because they will act as a model for state governments. Rather than rushing in, it should set an example for states by adopting a framework which is commensurate with the present times.

ILLUSTRATION BY BINAY SINHA



India's emergence as leading power

Geopolitical factors favour rise of the country as a rival centre of power co-existing, competing, and collaborating with other major powers

The historian William McNeil has described the nature of power and its relationship with notions of fairness and ethics in the following words: "It seems unlikely ... that recent and prospective enlargement of human capacities to organise and exert power will be permanently arrested by scruples against its use ... Power in short ingests weaker centres of power or stimulates rival centres of power to strengthen themselves. This fact has dominated the whole history of mankind."

This represents the realist school of international relations where any ethical anchor is dispensable but does reflect current geopolitical reality substantially. In aspiring to be a leading power, India, too, is placing its bet on sinews of power, current and prospective. It rejects the likelihood of being "ingested" by a more powerful entity. But would it be stimulated to emerge as a rival centre of power?

McNeil has described how such a transference of power may take place from an established to an aspiring one: "No population can overtake or surpass the rest of the world without using the most efficient and powerful instruments known anywhere on earth; and by definition such instruments are located at the world centres of wealth and power — wherever they may be. Thus any geographical displacement of world leadership must be prefaced by successful borrowing from previously estab-

lished centres of the highest prevailing skills." We have several examples of this from history. The Roman empire borrowed heavily from Greek civilisation and culture in its march towards pre-eminence. During their pursuit of dominance, the Arabs actively sought and assimilated advanced knowledge from the Central Asians and Persians, who, in turn, borrowed heavily from the Indians and Chinese, particularly in mathematics, astronomy, and medical science. In more recent history we see the example of the Americans building a powerful and advanced economy by borrowing technology and skills developed by Britain and the rest of Europe during their industrial revolution. Japan of the Meiji era repeated this process. But the most recent and spectacular example of this is the emergence of China as a great power. During its four decades of reform and opening up, it has soaked up advanced Western knowledge and technologies like a giant sponge. During this phase it has been modest, ready to be student and apprentice, and this was the true meaning of Deng Xiaoping's famous dictum "hide your capabilities and bide your time". The cumulative outcome of this "beg, borrow and steal" strategy has enabled China to emerge as a formidable economic and technological power in its own right. In McNeil's terms, a geographical displacement of power from the trans-Atlantic to the trans-Pacific is underway, with China at its centre — a rival centre. One may understand this displacement of power



SHYAM SARAN

PM needs to oversee trade policy and negotiations

I was sad to see our continued hesitation in joining the Regional Comprehensive Economic Partnership (RCEP) despite a strong stance taken by the prime minister (PM) earlier to join. The government is now asserting that there is room still left for joining it, or we should Look West and not just Act East when the European Union (EU) is on the decline, and US policy is uncertain, with these countries are likely to be more demanding than the RCEP. These views clearly reflect a total lack of trade negotiating strategy which is compatible with the new and uncertain global trade landscape.

We urgently need an institutional reform for trade policy. We need our PM to directly be involved with the new institutions. Our PM has shown his leadership by single-handedly overcoming our poor business climate and massive trade transaction costs. We now need him to oversee trade negotiations, continue with trade and logistics reform, and make our economy competitive.

Given the cross-cutting nature of the 21st-century trade agenda, leadership should not rest with any line ministry. What is needed is an "apex entity" that has a clear mandate from the PM to consult with stakeholders and manage the process of developing the strategy. This entity cannot be solely responsible for implementation as that will by necessity involve many players in and outside the government. Instead, its role in the implementation phase is to act as coordinator and convener, and to have the mandate to monitor and assess implementation by relevant agencies within the government.

The proposed apex entity can be called the National Trade Policy Council (NTPC). It will ensure that all agencies that are involved with trade activities — line ministries, regulatory bodies, state

governments — know what the goals are. They are fully informed of the priorities that are defined by the strategy, and use it as a framework that guides their activities.

The NTPC should be chaired by a minister who reports directly to the PM. The Council should include senior representatives of all relevant ministries and regulatory agencies. It should have the mandate to create technical committees that bring together sectoral or issue-specific experts to provide inputs on the design or implementation of specific dimensions of the trade strategy.

The NTPC could have two offices — Office of the Chief Trade Negotiator, and the National Logistics and Trade Facilitation Council (NLTFC).



JAYANTA ROY

Chief trade negotiator

Its office could be responsible for all trade negotiations at multilateral, regional, and bilateral levels. Trade negotiations are a strategic economic objective, and not an administrative one. It is critical to have a small dedicated secretariat that is not burdened with day-to-day administrative responsibilities to deal with it. The multilateral unit could be responsible for all negotiations at the World Trade Organization (WTO) and to develop the agenda and policy position for India for G20 discussions, as well as guide India's engagement with the United Nations Conference on Trade and Development (Unctad).

The bilateral/regional negotiations unit could be responsible for all bilateral and regional trade and economic engagement with three sub-units: Southeast Asia (SEA), Africa, West and Central Asia (AWCA), and Europe and the Americas (EA). SEA should be high-priority, as India's role in SE Asia and its integration with Asian production, trade and investment networks are critical to its eco-

nom future. The RCEP is the main mega-regional agreement for that.

from another historical perspective. It unfolds in a trajectory defined by three phases, though overlapping. In the first, countries borrow knowledge systems and advanced technologies from apex centres and adopt them. This is followed by a phase of assimilation when borrowed technologies and knowledge systems underlying them are mastered and internalised. In the third and final phase, an emerging centre of power is able to generate new knowledge and technologies in a relatively autonomous manner. This is when geographical displacement of power starts becoming a reality and when contestation between an established centre or centres and the emerging rival becomes most acute. Where is China at this juncture? It is probably going from the second to the third phase. India, by contrast, may be transiting from the first to the second phase. China is already competing with the US in high tech areas like artificial intelligence, robotics, and quantum computing. India is yet to matter in this race. True, India has its centres of excellence such as its space programme and this evokes justifiable pride. But centres of excellence must expand to become continents of excellence, otherwise they may well be overwhelmed by a sea of mediocrity around them.

If a lesson is to be drawn from China's experience, it is to remain modest and humble while soaking up knowledge and technology from wherever it is accessible. This is particularly so in an age where the key driver of growth is technology and successful societies of the future will be knowledge societies.

Geopolitical factors favour the emergence of India as a rival centre of power co-existing, competing, and collaborating with other major powers. The established centres of wealth and power are still the US, Europe, and Japan, though their relative weight may be declining. They see their pre-eminence threatened by the rise of China. India possesses geopolitical value for them as the only country which has the attributes and assets to become a credible countervailing power, denying China a dominant role in the emerging global order. They have a stake in India fulfilling its immense potential. This could be judiciously leveraged to encourage a critical mass of capital and technology to flow to India and help it sustain an accelerated rate of growth. As a vibrant and pluralist democracy, India shares political values of its more powerful partners and this is an advantage.

The cosmopolitan temperament of India's people and their ability to handle immense diversity are unparalleled civilisational assets in dealing with a globalising world. But leveraging these assets will demand relative humility and willingness to learn rather than be a know-all. Constant references to past luminescence do not prepare minds for a brilliant future.

We are at a rare moment in our history when the ruling political dispensation enjoys unprecedented political capital and is led by a charismatic and ambitious leader. These are perishable assets and must be harnessed to make difficult choices, which alone will determine our trajectory to great power status. As with individuals, opportunities for nations have a short shelf life. They will not be waiting for us to unwrap when we think we are ready. The world is moving on and India must either stay ahead of the curve or be reconciled to a future of limited options.

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National Logistics and Trade Facilitation Council

I have outlined this in the PM's Economic Advisory Council October 2018 Report on logistics development. The outlines are:

- Establish a National Council of Logistics and Trade Facilitation outside the line ministries reporting to the prime minister via the NTPC
- It must consist of the ministries and departments related to logistics and trade facilitation, and chief ministers of concerned states
- Private sector and trade stakeholders should be represented
- The logistics wing under the commerce ministry be made a dedicated secretariat
- Development of robust performance outcomes for logistics and trade facilitation
- Monitor performance through an online dashboard and fix responsibilities for time-bound corrective action
- Facilitate policy development and multi-stakeholder coordination
- Regular publication and dissemination of data on key sectoral outputs

There is an urgent need to create the 21st-century institutional framework described here for India's global trade and investment engagement. In all developed and successful economies, strategic trade decisions are taken at the highest political level, and not left to the narrow focus of line ministries whose task should be the detailed implementation of these strategic decisions under the NTPC's close monitoring. The PM should urgently create the NTPC and test it out with a firm and decisive position on joining or not joining the RCEP as a founding member by February 2020.

The writer is a former economic advisor to the Union commerce ministry

How racism infects science



BOOK REVIEW

DEVANGSHU DATTA

In July 1950, the United Nations Educational, Scientific and Cultural Organization (Unesco) issued a statement that characterised racism as "a fundamentally anti-rational system of thought. Scientists have reached general agreement in recognising that mankind is one: that all men belong to the same species, *Homo Sapiens*". This was in the aftermath of World War II, a war triggered by a "master race" that did its best to exterminate inferior peoples.

But within a year, Unesco was persuaded to subtly modify that statement to "Scientists were generally agreed...". Even after a racially-charged war where tens of millions died, there

was a lack of scientific consensus on the basic fact that humans belonged to the same species.

That lack of consensus was a manifestation of what the author of this book describes as "race science". This is one of the most pernicious and persistent ways to propagate racism: Dress it up as science. Even as Ms Saini delves into the history of this phenomenon, she connects it to the current zeitgeist.

This is a timely book. Racism, and its handmaidens, "race science", have made a stunning comeback in the 21st century. Across the world, race science has been weaponised by sundry populist demagogues who have combined it with ethnic nationalism to build political platforms.

The new "scientific arguments" buttressing racist ideologies have become more sophisticated and more specious at the same time, as there has been pushback from within the academy. The scientific underpinnings of racism were always dubious, and one by one,

the hypotheses of race science have been systematically refuted, as science developed an understanding of DNA and prehistoric migration patterns.

There are several inconvenient facts that race science can't deal with logically. One is that all humans living today have the same ur-mother, Mitochondrial Eve, and *Homo Sapiens* originated in Africa. That is, it is perfectly possible that Angela Saini, a brown person of Indian origin may have more DNA in common with Angela Merkel, than with another brown person of Indian origin. This means it is impossible to see race as a biological construct anymore.

But instead of being chucked into the dustbin with ether, and geocentrism, and Flat Earth hypotheses, racism and its proponents have just sought to make newer pseudo-scientific arguments. This is actually clever tactics: Any argument in favour of racism could be logically refuted. But racism is a social construct, and like other social constructs, it needs to

remain in the public eye to continue picking up adherents. Attempts to refute race science just ensure that the pot stays on the boil.

Racism, or the belief that one "race", however that may be defined, is inherently superior, is an attitude that reaches back into the mists of time. The elite of every dominant civilisation have always implicitly, or explicitly, believed in their own superiority and every civilisation has reinforced that belief with its own educational and socio-cultural ethos.

But race science — the attempt to add intellectual ballast to this belief by "proving" superiority in some measurable way — started in the European Age of Enlightenment. It was heightened during the colonial era and it reached a horrifying peak in the early-mid 20th century. Eugenics led to the "logical" conclusion that inferior races should first, not be allowed to breed unchecked, and then to the creation of concentration camps, where *untersch* (sub-humans) were systemati-

cally wiped out. Less murderous but still horrific policies such as Apartheid, caste-based discrimination, forcible sterilisation and racial segregation were also buttressed by racism.

Race science started with Carl Linnaeus who categorised human "races" along with his other taxonomies. Linnaeus made a pretty loose characterisation based on a few observable physical characteristics. The 19th century and the early 20th century saw further attempts to slice and dice human beings into races.

It is notable that practically every scientist of the 19th century, and most politicians, believed in the racial superiority of "whites". Many 20th century personalities did as well. The list of eminent racists includes luminaries like Charles Darwin, his cousin, Francis Galton who pioneered eugenics, James Watson of the DNA fame and Robert Shockley who led the team that invented the transistor. It includes politicians such as Abraham Lincoln and Winston Churchill, and reformers like Marie Stopes. It included multitudes of scientists who espoused the Nazi cause.

This is not really surprising.

Scientists are social beings, and many will subscribe to whatever the mainstream ideology is, in their respective society. During the era of colonisation, Europeans spread across the world, exploring, trading, and exploiting their technological superiority to grab real estate. Local populations were subjugated, enslaved and in many cases, exterminated. Slavery and the use of bonded labour led to enforced migrations. Racist beliefs were mainstream. Ergo, many scientists espoused them.

Ms Saini highlighted gender discrimination in STEM in her earlier work, *Inferior*. That book pointed out that there continue to be huge disparities in terms of gender when it comes to participation in STEM disciplines. Superior makes a similar, even broader point about racism. It's essential reading for anybody who wishes to understand how ingrained racism infects science.

SUPERIOR: The Return of Race Science

Angela Saini
Harper Collins
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