times during the last three years. Similarly, there is revenue growth from the Board of Revenue (from land transfer fees) and the Excise department.

The increase in tax revenue was achieved despite reducing the rates by increasing the tax base. The province tried to create this overall tax cycle where the government delivers services to people, and people reciprocate by contributing to the government. The distribution framework guarantees that local revenue is spent in the area from where it is generated so that people can readily see the effect of their contribution.

Several initiatives were taken to further improve governance. A new local government system has been launched, with powers devolved up to the village level. Issues, like absenteeism of teachers and doctors, especially in remote areas, have been addressed, and reforms have been implemented in the police department. Moreover, an innovative project like the 'Billion Tree Tsunami', was launched which has been now scaled up to the national level.

Bringing the change was not easy as the country faced multiple challenges— besides the overall economic crisis that the country faced, there was this once-in-a-century pandemic that wreaked havoc with the daily routine and business activity.

Following the focus on revenue growth, the province also rationalised the spending by prioritising the development spending. The provincial government revisited the development schemes and dropped projects worth Rs. 200 billion by establishing the right priorities – the money saved has been diverted to the high-priority projects. It is the political government that conceived the idea of rationalisation and made it happen.

The non-salary spending in the province has increased by almost 60 percent in the last two years (2020 & 2021), and this has started to show impact in the form of BRT service, better; roads, hospitals, and schools. The government also wants to cause a change in the job market, and attracting the PIDE's conference to Peshawar was one of the important steps to introduce new ideas in this context.

Universal health coverage is a flagship project of the province whereby any person can have indoor hospital treatment to the extent of Rs. 1.0 million. With universal health coverage, the province has transformed both healthcare delivery as well as the health insurance industry. This has created a competitive environment for public and private hospitals as well as shown the way how the health service delivery may spread across the province over the next couple of years.

M.L Qureshi Memorial Lecture: *Key Takeaways*

New Frontiers in Behavioural Science: Scarcity, Nudge, Sludge and Social Norms

Cass Sunstein

Sludge—excessive time consumed in performing a task—imposes a burden on society. Administrative burdens, reporting requirements, paperwork requirements, waiting time, in-person appearances, and much more operate as a kind of an essential between

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human beings and something that connects their life. Sludge imposes time-tax (opportunity cost), monetary cost, and psychological costs upon society. There should be a sludge audit to quantify the magnitude of such costs—knowledge of the sludge magnitude would provide the basis for the efforts aimed at sludge-reduction

One of the many ways to reduce sludge would be to nudge people into doing something. Nudges, however, are a function of human behaviour, therefore, it is important to understand human behaviour regarding what motivates a person to do something or refrain from another. Human beings suffer from cognitive scarcity, and they have a limited processing capacity in their mind. If we are sick, elderly, or suffering from incapacity, the cognitive ability will be reduced further. We have spent a great deal of time debating economic scarcity over the last hundred years. Now, we need to spend a great deal of time in the next hundred years debating cognitive scarcity.

Reducing sludge or encouraging people to do something calls for change in human behaviour. Knowledge of the emerging social norms is important in changing behaviour—the knowledge that people are increasingly wearing masks, increasingly driving safely, increasingly worried about the environmental impact of their behaviour, or increasingly stopping smoking—such knowledge can influence change in human behaviour. To influence behaviour in the intended direction suitable knowledge must be widely shared with the targeted group.

Here are some examples of human behaviour that policymakers may use. If people are enrolled automatically in a savings program with an option to opt-out, this increases the participation rate dramatically relative to when people are asked to enrol themselves. Evidence from North America suggests that if poor students are asked to enroll in free meal programs at school the enrolment rate is low. However, if they are enrolled automatically the participation rate increases significantly. People spend more than their debt limits or do not pay their debts timely—a law that introduces consequences for exceeding debt limits or not paying timely has helped reduce debt tremendously. Evidence also suggests that the automatic enrolment of people in cleaner energy programs has the consequence of reducing greenhouse gas emissions significantly.

Human beings are Imperfect choosers, and this fact is manifested in five principle behavioural findings. These are:

(1) Unrealistic optimism
(2) Present bias
(3) Status quo
(4) Limited focus
(5) Imperfect risk assessment

Unrealistic Optimism. Optimism has benefits, but unrealistic optimism can lead to adverse consequences including consequences for health, safety, and the economy. For example, evidence suggests that 90 percent of the drivers feel that they drive safer than the average driver. 94 percent of the professors feel that they are better than the average college professor. And perhaps 100 percent of the people believe that their sense of humour is better than the sense of humour of the average person (though we do not have evidence on this). This kind of unrealistic optimism can create health, safety, and economic problems.

Present bias. Human beings suffer from the 'present bias' i.e., they tend to focus on today and tomorrow but do not focus on farther into the future—the future, in fact, tends

to be a foreign country that most people are unlikely to visit. If people focus only on the 'present' and not on the 'future', they can make decisions that can, for example, impair their health, or if people are suffering from poverty, with the present bias, they may not do enough to improve their lives.

Inertia/Status quo. Human beings also suffer from Inertia. This means that the status quo has a lot of force—if we can make a decision that would change our life for the better, quite often, we may not make that decision due to the magnetic force of the status quo.

Limited focus. Out of the assortment of things that one could see, each of us sees only a subset— if while sitting in a room, we are listening to a lecture—though a number of things could be happening in that room the audience might be focusing on the lecture only—though focusing on a specific thing at a point in time is good, but for a consumer making choices regarding what to buy or a student choosing what to study or an employee making choices, what to that day, the limited focus could mean that people may ignore something that affects their welfare.

Imperfect risk assessment. Human beings may accord higher or lower probability to the occurrence of an event depending on whether the event which drives the risk perception has happened or not in the recent past. Human beings' perception of risk might be lower if an event has not occurred in the recent past, and this lower perception could drive action or non-action and hence be a source of a problem.

Nudges are behavioural responses to the sources just described above. The central characteristic of nudges is that they preserve the freedom of choice. A GPS device is a nudge—it tells you a certain route which you may like less than your familiar route, and you can decide to take your familiar route, but still, the GPS device is immensely helpful—it can tell what route you may take and while allowing you to override the suggestion.

Empirical work on nudges is being discussed using the FEAST framework. The 'E' in the FEAST stands for 'easy'. In essence, it says that to change behaviour, make it 'easy' for the people to go through the process of change. For example, to increase acceptance of the Covid-19 vaccine, make it easy for people to get vaccinated. The same goes for quitting smoking, encouraging savings, enrolment in a health plan, or getting an education. One way to increase participation is to make it automatic i.e., enroll all and then allow people to opt-out if they do not want to continue. Evidence suggests that such automatic enrolment increases participation by as much as 26 percent—however, there is no evidence that such automatic participation is effective— i.e., if people are made to sit in a lecture, they may not essentially learn from such a lecture. Therefore, the better nudge is to make it simpler rather than just automatic.

'S' in the FEAST framework stands for 'social'. A social norm is a powerful knowledge. Telling people that most people are doing something virtuous encourages others to do likewise. Similarly, telling people that only a small proportion of people are practicing deviant behaviour helps in restraining people from doing things that are considered socially bad. For example, in one country, telling the doctors that our country tops the list of countries prescribing the most antibiotics helped reduce the use of antibiotics. Similarly, if the majority pays taxes, then telling the defaulters about their default is invoking the social norm to nudge people into paying taxes. With respect to the environment too we are learning that if people are informed that other people are increasingly engaging in environmentally friendly behaviour then this is a powerful

nudge—this will help save; nations from pollution and nation's money as well—yet this is the emerging social norm rather than the majority norm but still a powerful nudge.

'A' in the FEAST framework stands for 'attractive'—to make people accept the change – the change must be made attractive. For example, wearing masks is difficult; however, some young people are nudging others to wear masks by wearing masks that catch attention. Similarly, one can try to make social distancing and staying at home tolerable, if not attractive.

'T' in the FESAT framework stands for 'timely'—this says that the nudge must be timely. For example, with respect to Covid-19, it has been observed that telling people just while they are entering a store, that mask-wearing is obligatory, works. On the other hand, telling people in July to avoid going out in winter without being fully protected may not work. So, the lesson is, to nudge timely!

'F' in the FEAST framework stands for fun. To encourage people to do something (difficult), one should try turning 'the doing' into fun. [For example, children may hate doing simple mathematics like addition and subtraction—those trained in teaching children have introduced games that involve addition and subtraction – thus imparting math skills to children has been turned into fun]. To overcome the damaging impact of covid-related rumours, some countries have introduced the phrase; humour over rumour—thus joking over the preposterous nature of rumours one is likely to overcome their damaging impact. Likewise, to encourage the use of vegetables, if we just say that eating vegetables is good for health, this may not encourage people to eat more vegetables however, people can be nudged into eating vegetables by cooking delicious veg dishes and dressing these to look 'attractive'.

Sludge

The take-up rate for programs designed to offer some benefit to the public is 40-60 percent (in the United States). This means that a significant proportion of those entitled to benefits is not taking up those benefits. The question is why? The answer is that sludge inhibits!

The American government imposes 11 billion hours of paperwork on the American public. This includes doctors, nurses, patients, students, truck drivers, small businesses and people trying to get visas, etc. The figure of 11 billion just scratches the surface - the time tax i.e., the personal time consumed in going through the process while trying to get benefit or avoid relevant bureaucracy is not included in this.

The sludge is damaging because, given the burden of paperwork and the time tax imposed, people may decide not to do the thing in question because they don't have 15 hours to spend on this or even if they have the time, given the complexity of the procedure, they cannot figure out how to do it—if people must go to a faraway place to avail a benefit, while they have little children or elderly relatives to take care off, they may decide not to take the benefit or at least delay availing till the time they manage to overcome the situation.

If people suffer from the 'present bias', they may think they will navigate this difficult task tomorrow but then tomorrow never comes. Or they just might think that 'I will do it, but then status-quo prevails (doing my job takes precedence) and they never do it. Or being 'optimistically driven', they may think that they will handle the sludge, but that could be an unrealistic optimism— they never overcome sludge.

These behavioural findings are compounded by the problem of scarcity—quite often, the people who have faced sludge are in the worst position to handle sludge. This is adequately depicted in the words of a person who is entitled to some benefit and is asked to fill out a complicated form to avail of the benefit— he says: "when I was 50, I could have filled these forms, now I am 87—you are asking me to fill out these forms now!". What is true of the elderly is also true of the disabled, mentally ill, those facing depression, or women—upon whom a disproportionate weight of the sludge is imposed in many societies—taking care of the children and household chores in addition to being an earning hand. Thus, the sludge prevents the vulnerable from getting what they are entitled to and thereby compounds the problem of inequity, and of course, it impedes opportunities, education, employment, and economic growth.

What to do? The obvious solution is to cut down sludge. The question is, how to reduce sludge! The first step towards sludge reduction is the sludge audit—figure out the magnitude and kind of sludge involved in different activities, including the sources from which the sludge emanates—agency, officials, forms, etc. To determine the magnitude of sludge, one would have to estimate the time and monetary cost involved in performing a task.

Understanding and reducing sludge is a serious problem for perfect choosers, and it could be a devasting problem for the imperfect choosers that most of us are. The next step towards sludge-reduction is to wage war on a sludge—figure out the cost and benefits of the time consumed and costs (monetary as well as psychological) incurred in the performance of a task and pose questions like; does this task require the eight weeks being currently spent in doing this? Or can this task be completed in, say, one week without comprising the objectives of the programme?

One of the good things about covid has been that it has concentrated attention on sludge-reduction—facilitating people in doing things in minimal time. With persistent attention to reducing sludge, the goal of minimal sludge will become achievable. To conclude, another thing that covid has reiterated, if not taught us, is that 'time' is a very precious thing—let us give more of it to humanity by cutting down sludge.