

INTERVIEW | K. KASTURIRANGAN

'The education system needs change, not fine-tuning'

The Chairman of the committee which finalised the draft National Education Policy, 2019, on Board exams, teacher training and improving the quality of research

SHUBASHREE DESIKAN

The K. Kasturirangan Committee, which submitted the draft National Education Policy to the Ministry of Human Resource Development in May, has invited comments on the document till June 30. Mr. Kasturirangan, chairman of the committee and former head of the Indian Space Research Organisation, talks about the features of the policy. Edited excerpts:

How was the committee constituted?

The work on the present policy started in Smriti Irani's time [when she was Union Minister of HRD]. After eliciting opinions from a cross-section of society, the T.S.R. Subramanian committee was set up. In parallel, there was a report from the MHRD. I was called by Prakash Javadekar, who was the [HRD] Minister then. There were some issues with the Subramanian report which we were asked to revisit. We also had the MHRD report. We were asked to use all this and come up with a report which did not have issues and which could withstand the next 20 or even 30 years of India's development. But when we studied it, we felt that what was needed was not a fine-tuning of the existing policy but a re-look. So, we started with a clean slate.

While the idea of school complexes sounds good in urban and semi-urban areas, what about areas where access to schools is a problem?

Sarva Shiksha Abhiyan had put forth [the idea] that within a specified distance there should be a school. Schools have come up, but there are many schools which have only six students or only one teacher. This is not the idea of school education. There is no playground, there is no idea of a societal interface with the child. Wherever we have a cluster of schools, we can move to this concept of school complexes a little faster. School complexes will grow

fast in some places. And that will give us information on how to operate in the more complex systems. We are not talking about overnight change. We can't do that in a country with such diversity. Geographically if the schools are not easily connected, we have to provide facilities like cycles [to students].

You mentioned India's complexity. There are several iniquities which cannot be ignored. Given this, why does the policy have just half a page on the education of Dalits and OBCs?

At different places we have touched upon the education of underprivileged classes, including setting up special education scholarships for them and selecting teachers from amongst them for local requirement. Don't just read the title of Dalit or underprivileged and see the paragraph under that. Read the whole document and you will see in several places we revisit this question with respect to that area. If you take the sum total of that, you will see the whole picture of what we are saying.

The typical problems faced by Dalit children are different from those faced by economically backward children from a different caste. Do you address this?

If you bring solutions for Dalit students into the educational process, it may be a tall order for education to deal with it. This is a societal problem. What we have tried to do is make sure that Dalits do not suffer for want of op-



portunities. What opportunities? Access to education — you can go to nearby places and study as well as others. Second, Dalits will get 100% scholarship. Many small concessions given by the government will be retained and, if necessary, upgraded.

The policy suggests several Board exams each semester for eight semesters. Isn't the load a lot more than it is now?

Students can take the Board exams as soon as they are thorough with a particular subject. In case they are not happy with the outcome of that exam, they can take it again in another six months. There is nothing sacrosanct about writing the exam at a particular time and doing well. [It is not as if] their future is ruined if they don't perform well in the exam.

Once exams are completely digitised, the student can give the exam. And if he finds he has scored well, he has completed the exam. Another aspect is that as he gets more and more credits as he passes more exams, these credits can be carried forward. So we think this system provides minimal pressure. And we do away with rote learning; it is a formative test.

Can this not be achieved within the existing system?

The existing system has intrinsic issues. There are several thousand schools with merely six or eight students. Or only one teacher. What kind of satisfactory model can you develop around this for school education? The school exam system has to be changed. The exam system is difficult because youngsters are stressed by the rote learning approach. Teachers have to be re-trained or new teachers have to be brought in because the pedagogy is going to be very different. The whole system has to undergo a change, so fine-tuning the existing system to achieve the level of aspiration projected here doesn't seem to be feasible.

The draft policy advocates an extreme degree of centralisation. Even though education is in the Concurrent List now, State autonomy is not really considered in this.

We are aware that education is in the Concurrent List. States have a major responsibility. They have the school. Every State will have its regulatory body set up by the school. Accreditation will be separated from regulation,

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but the accreditation process will lead to some aspects of regulation. Whereas the national frame-setting will provide the guidelines for framing the curriculum, and a pedagogy for that, it is up to the State to decide what will be the curriculum and pedagogy. Similarly, like the national accreditation authority, you have the State accreditation authority. This policy will enable the State to considerably innovate, bring in new ideas, and try to create dynamic changes. There is always a consultation process that is available with the Centre with respect to the four or five bodies which will control education. But that in no way will put direct control on what is happening at the State level.

You are talking about public education. But there is an advisory to shut down standalone teacher education institutions across the country as soon as possible. Your comments?

Teacher education institutes have mushroomed in the thousands. I don't want to talk about how they have operated, what kind of degrees have been given and what the outcomes have been. School teachers are going to build the youth of tomorrow. We think school teachers should come from higher education institutions. Transfer them to higher education institutions, give them a four-year B.Ed. They can be given liberal education for two years followed by areas in which they will be teaching. They have to be given comprehensive knowledge, learn pedagogy and communication skills. And make sure that they can frame curriculum.

What is the time period over which this transformation can happen?

Existing Anganwadi teachers can be trained in six months. Those with two-year education degrees can be transformed in a year. And for the future you have a four-year course. So, within four years we should be able to get people. But we also need a throughput — it is a large number. We think we need to put this on a priority.

There is extreme centralisation of research in higher education.

I think centralisation and decentralisation have meaning when there is a scale in which they operate. In India, research is 0.69% of the GDP. Compare this with the U.S. where it is 2.4% or 2.5% of the GDP. So, centralisation has no meaning when you are talking about this kind of money. There is no question of any "isation". Currently, if you look at the outcome in terms of papers, it is just improving because of the university support being given by the Department of

Science and Technology (DST). If you look at the number of patents, it is 30,000 or 40,000 compared to 6,00,000 and 7,00,000 in the U.S. and even more in China. Even in this, about 70% of the patents come from NRIs. So, if you look at the overall scenario of industrial outcomes, social outcomes, strategic outcomes, and the kind of money that is going into this, and the number of papers, patents and such parameters, India is not at all in a happy situation.

One of the reasons is that nearly 93% of university students go to state universities which are pathetic in terms of research quality. Second, the research itself, though well supported, is mostly given to institutions where there is some capability. So you get more funding for institutions like the Tata Institute of Fundamental Research or a CSIR lab, or a DRDO lab, or ISRO. Some of the Central universities and IITs do get some funds, but it is not sufficient. I think one needs to improve considerably the money and along with it the infrastructure and the number of researchers who will contribute.

What does the policy say about reservations?

We have no authority to tamper with that. But what we have done is, there are people who need to be supported because financially or otherwise they are underprivileged. We need to make sure that this is strictly enforced. And that there is no room for misuse of that kind of thing by institutions. And suggest if there are any inadequacies in the implementation that need correction. Beyond that I can't say anything more. But it will be in favour of the fact that we need to ensure that the underprivileged are not condemned to be there.

How do you propose to achieve this?

So, we thought there should be a [national] research foundation. It should be all encompassing, including science, engineering, social sciences and humanities. First of all, the competitive grant from DST and other institutions... we will [have a] similar thing with respect to the university system, primarily. But it does not stop other institutions from asking for money, and it will be done on a competitive basis. The second is seed capa-

bilities in a university system so that they can start undertaking research. Seeding can be in any area depending on what the universities' interests are and what the local demands are. There are many scientists who are retired. They can go and mentor the universities. They will be given a remuneration, they can research, produce papers, even take students for the first five or 10 years. The place gets operational.

The research foundation will enable research grants from government institutions. This is the third element. There are industrialists. They always say we are ready to give money, but we don't get any output. So, create a tighter system of monitoring. The government will help with this kind of monitoring, evaluation and mid-term correction. This can improve the confidence of industry. This will create a new generation of researchers who will teach the next generation of learners. With this nexus between teachers and learners, the university will have a different kind of atmosphere.

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A longer version of the interview is available on www.thehindu.com

SINGLE FILE

Cinema as education

'Virus' is a reminder of the role of cinema in spreading social good

KUNAL RAY



Aashiq Abu's recently released Malayalam film, *Virus*, is captivating. The film is a chilling document of the deadly Nipah virus outbreak that affected parts of Kerala last year and how the State machinery mounted an impressive defence to tackle the grave situation. It records in laborious detail the meticulous planning undertaken by many individuals to solve the crisis, saving many lives that could have been further endangered. This is a prime example of cinema that is educative. I am no lover of socio-realist films which can sometimes be pedantic and preachy, but *Virus* is an important moment in the history of contemporary Indian cinema, which is increasingly assailed with propaganda films. To me, this film is a reminder of the role of cinema in spreading social good.

Fiction films on medicine and public health are rare in India. Cinema has often been used to critique the lack of medical facilities, poor healthcare, infrastructure and illustrate people's suffering. Most of these films only present the problem without offering any solutions or follow-up to the crisis. While these issues cannot be marginalised, *Virus* shows how to deal with adversity using public knowledge and the workforce. It also depicts the positive role played by the local media in preventing panic and effectively disseminating information. Cinema is a documentation of our times and the knowledge that this film has archived will be available to a large populace for future action if needed. Furthermore, it makes no attempt to glorify the powers that govern the state or peddle any ideology that, for example, the filmmaker might favour. It is a lesson in objective storytelling.

Besides, the film involves several key members of the Women in Cinema Collective, which has attracted much consternation since its formation in a heavily male-dominated industry. I am hopeful that the film will further bolster their position as purveyors of content-driven and socially relevant cinema. *Virus* places women at the core of its narrative. The film is unimaginable without them because women were the key players under the leadership of the remarkable K. K. Shailaja, Kerala's Minister of Health and Social Welfare. But how does contemporary Malayalam cinema manage to do this? Here is an example of a rare mainstream film practice that merges excellent storytelling with riveting performances. The distinctions between art-house cinema and commercial cinema dissipate. The film shows patients suffering, with concerned families by their side. It eschews melodrama completely without foregoing its humanism. At the end of the day, cinema ought to help us recognise characters as fellow human beings with their vulnerabilities. *Virus* does that. It is the triumph of good storytelling coupled with the right intent.

The writer teaches literary and cultural studies at Flame University, Pune



DATA POINT

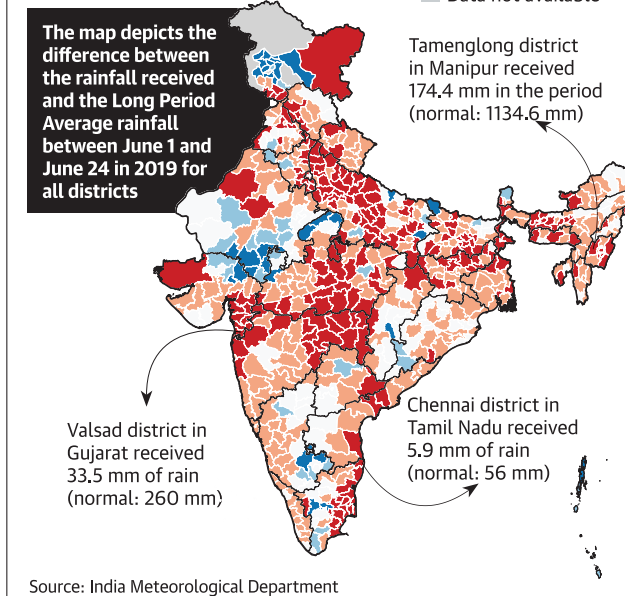
Dry run

Close to 72.5% of the country's districts received less than normal* rainfall in the first 24 days of the ongoing monsoon season. In six States, more than 50% of districts received largely deficient rainfall. Parts of Rajasthan, Karnataka, Odisha and J&K are exceptions to this trend. By Siddarth Rao T. & Vignesh Radhakrishnan

Table shows the % of districts in each State across rainfall categories

- LD: Largely deficient (-60% to -99% of Long Period Average rainfall)
- D: Deficient (-20% to -59% of LPA)
- N: Normal rainfall (-19% to +19% of LPA)
- E: Excess (+20% to +59% of LPA)
- LE: Large excess (>59% of LPA)
- * Data not available

| STATE/ U.T. | LD | D | N | E | LE |
|---------------|-------|-------|-------|-------|-------|
| Delhi | 88.89 | 11.11 | 0 | 0 | 0 |
| Manipur | 66.67 | 33.33 | 0 | 0 | 0 |
| Haryana | 57.14 | 33.33 | 0 | 9.52 | 0 |
| Uttar Pradesh | 56 | 21.33 | 8 | 2.67 | 2.67 |
| Maharashtra | 52.78 | 44.44 | 2.78 | 0 | 0 |
| Jharkhand | 50 | 41.67 | 8.33 | 0 | 0 |
| W.B. | 42.11 | 57.89 | 0 | 0 | 0 |
| Bihar | 42.11 | 36.84 | 15.79 | 2.63 | 2.63 |
| Himachal | 41.67 | 41.67 | 16.67 | 0 | 0 |
| M.P. | 41.18 | 39.22 | 7.84 | 3.92 | 7.84 |
| T.N. | 40.63 | 21.88 | 18.75 | 6.25 | 6.25 |
| Meghalaya | 37.5 | 50 | 12.5 | 0 | 0 |
| Assam | 34.62 | 46.15 | 19.23 | 0 | 0 |
| Gujarat | 33.33 | 36.36 | 12.12 | 12.12 | 6.06 |
| Overall | 32.89 | 39.62 | 15.94 | 5.12 | 4.53 |
| Arunachal | 31.25 | 50 | 18.75 | 0 | 0 |
| Punjab | 30 | 35 | 30 | 5 | 0 |
| Tripura | 25 | 50 | 25 | 0 | 0 |
| Sikkim | 25 | 50 | 0 | 25 | 0 |
| Uttarakhand | 23.08 | 76.92 | 0 | 0 | 0 |
| J&K | 22.73 | 9.09 | 0 | 9.09 | 50 |
| A.P. | 13.95 | 60.47 | 23.26 | 2.33 | 0 |
| Mizoram | 11.11 | 66.67 | 11.11 | 0 | 0 |
| Chhattisgarh | 11.11 | 44.44 | 33.33 | 7.41 | 3.7 |
| Nagaland | 9.09 | 54.55 | 36.36 | 0 | 0 |
| Rajasthan | 6.06 | 30.3 | 27.27 | 21.21 | 15.15 |
| Odisha | 3.33 | 43.33 | 46.67 | 6.67 | 0 |
| Goa | 0 | 100 | 0 | 0 | 0 |
| Kerala | 0 | 80 | 20 | 0 | 0 |
| Karnataka | 0 | 46.67 | 33.33 | 13.33 | 6.67 |



Source: India Meteorological Department

FROM The Hindu ARCHIVES

FIFTY YEARS AGO JUNE 27, 1969

New types of sounding rocket

Dr. Vikram Sarabhai, Chairman, Atomic Energy Commission, told Pressmen here [Trivandrum] to-day [June 26] that a three-stage Centaure rocket, capable of reaching an altitude of 350 kms, would be fabricated in India by the end of this year. This completely Indian-made rocket would be an "improved version" of the two-stage French Centaure rocket, which could carry payloads only to heights of about 160 km. The two-stage Centaure rocket is already being made in India under an agreement with Sud-Aviation, France, the entire rocket hardware being manufactured at the Bhabha Atomic Research Centre, Trombay. The rocket has been used at the Thumba Equatorial Rocket Launching Station for measurement of electron density in the upper atmosphere.

A HUNDRED YEARS AGO JUNE 27, 1919.

Death Sentences in the Punjab.

(From an Editorial)

We cannot but profoundly regret the decision of the authorities not to postpone the carrying out of the death sentence passed on several accused tried by Martial Law tribunals in the Punjab pending appeal to the Privy Council. The prisoners should be given every opportunity of establishing their innocence and it passes our understanding why they should be denied this elementary right. There are also other very weighty considerations why, in bare justice to the condemned men, this request, preferred by various public bodies and distinguished Indians, should be acceded to without any hesitation or delay. The proclamation of Martial Law, the measures of repression taken under that authority and the sentences passed against the alleged offenders have caused as great, if not greater, horror as the circumstances which, in view of the authorities, necessitated such drastic action.

CONCEPTUAL Motivated tactician

PSYCHOLOGY

This refers to an individual who alternates between sloppy thinking and more careful analytical thinking depending on his level of motivation. The idea of the motivated tactician has been used as a model in social psychology to better understand common social behaviour. In some cases, it might make sense for an individual to use cognitive short-cuts to arrive at important decisions. For instance, individuals may often employ stereotypes as a tool to help them economise time and effort while dealing with a collective of strangers. In other cases, like when dealing with an individual member within a collective, proper analytical thinking may be employed.

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