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REFLECTIONS ON THE CURRENT ARCHITECTURE EDUCATION IN INDIA: REALITIES AND REFORMS

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Abstract: Since decades Indian Architecture Education has been in a very shoddy state. The way content is taught and the content that is taught, both requires major revamp. The practical exposure in the long duration of five years is much less. Most of the time students are busy doing undesirable and monotonous submissions which are hand drafted and consumes hours, instead of developing a sense of intellect and curiosity. The declining quality of buildings and poor performance of architects is being experienced in every part of the country. Content analysis strategy was adopted to review the literature which indicates- outdated and irrelevant theory, limited industrial exposure, weak institutional framework, and below-average standards of faculty and substandard teaching may be some of the many reasons to blame for along with the role **Council of Architecture** plays for this state. The question here is why did this dire situation arise and what reforms are required to reverse this discouraging state of education? Findings reveal that the huge rise in number of architecture school is the root cause of the crises we are facing today. “Dearth of faculty is a crisis; enormous number of students is a crisis.”

Index Terms - Council of Architecture, Architecture education, faculty, teaching, number of schools.

I. INTRODUCTION

Paper focuses on **The Role of Council of Architecture** for the current state of Architecture Education India which points towards the increasingly chaotic education. We need to rethink Architecture Education because of the changes in technology in construction, design, detailing and the distribution of information. There is a need to bridge the gap between teaching – learning process and the work done on field.

A long history is associated with the Architecture Education in India. Sir JJ School of Architecture (Mumbai) was the only institute in India at the time of independence imparting the course, that too initially it was producing draftsmen. Even then it was such a prestige to study there and it was the only school in Asia which offered GD Arch Diploma recognized by the Royal Institute of British Architects (RIBA). The standard was so high that the students who graduated from JJ School were regarded elite and they were sought after graduates. It is ironical that with more than 590 schools today, the RIBA does not recognize even a single school in the country due to the fact that the standards of education compared to global scenario has diminished to such a level that we can only boast of numbers by adding schools every year but not the expected academic standards.

One must credit the Council of Architecture (CoA), for multiplying the schools without being farsighted and today most of the institutes face a severe shortage of experienced faculty due to the fact that they are simply not available or most difficult to find. The Architects Act of 1972 authorised the Council of Architecture to approve institutions to impart architectural education in good faith. The 1984 Minimum Standards of Architectural Education was a gazette document and laid down the foundation for the minimum faculty qualifications for various academic positions. Then came the various un-gazetted versions of the Minimum Standards of Architectural Education until the latest gazetted 2020 Minimum Standards of Architecture Education which is itself flawed in many ways. Therefore, until recently 1984 Minimum Standards held good for any such appointment of faculty or their qualifications to serve in a suitable academic position as stipulated in the Architects Act 1972.

II. RESEARCH METHODOLOGY

Aim of the study is to critically review the articles/papers that have analysed the issues related to architecture education. More than 30 articles on architecture education were taken into consideration and reviewed to integrate and comprehend their views into a cumulative and concise perspective. Only the articles which maintain, differ from, or recommend a viewpoint on the issue of scenario of architecture education in India were taken into consideration. After a meticulous selection process, only 20 articles/ papers within a publication span of 39 years (1983–2022) met the selection criteria. Articles/ research papers after 1983 were chosen as the first gazetted version of minimum standards of architecture education came in the year 1983. Content analysis strategy was adopted to review and analyse the shortlisted articles/ papers. Each article/ paper was classified under a topic that best described the argument under consideration, during the content analysis. For instance, articles/ papers on the number of architecture institutes were coded under growing number of architecture schools. Additionally, four themes (aspects) of architecture education surfaced after conducting the content analysis on all the selected articles/papers which defined the role of Council of Architecture for the current state of architecture education. The established themes (aspects), as defined in the aim of the study, speak for the current perspectives of available literature on architecture education. Also, after reading the selected articles/ papers a way forward to improve the current architecture education is being suggested.

III. LITERATURE REVIEW

Rethinking Architecture Education is need of the hour, because of the change in technology, change in the construction techniques, changes in design, changes in detailing and changes in the way information is processed and distributed. Public funding in India is falling short to suffice the country's demand. Privatization of higher education in India is not well thought policy but a sheer failure on the government's part.

The standards to set up a new educational institute went through revision in 2020, but still there are a few details which are absent that in turn redirects the profit motif of a non-profit organization. Intake in various institutes has been increased from 40 to 80 to 120, **making the education quantity oriented rather than being quality oriented**.

Problems with the architecture schools.

- Firstly, humongous number of architecture schools.
- Secondly, there is no sensible understanding of what is satisfying architecture, without this knowledge, there is no way a good architecture can be designed.
- Thirdly, inadequate faculty.
- Fourthly, the flawed MSAE 2020.
- Fifthly, lack of research in academics by faculty as well as the students.
- Sixthly, students do not have exposure to any "build" activity. "Engineering the design", is something which is never learned.
- Seventhly, lack of tie up with the construction industry.
- Eighthly, students seldom read any good book other than their course books. They do not try to understand the context or the concept behind a great piece of architecture neither do they passionately try to understand or relate with works of great architects. Students just follow the pictures in the glistening books and try to imitate them.
- Ninthly, students' have got a very little exposure to related fields like ecology, humanities or even engineering.
- Lastly a lot of students come with a wrong attitude, they are under the impression that they know everything and executing projects is all that they need to do. All this because of the flawed MSAE designed by the Council of Architecture.

3.1. Role of CoA

COA was intended to serve the following functions:

- Certify minimum standards of architecture education
- Maintain a register of architects, and
- Set the standards for scale of pay and code of practice.

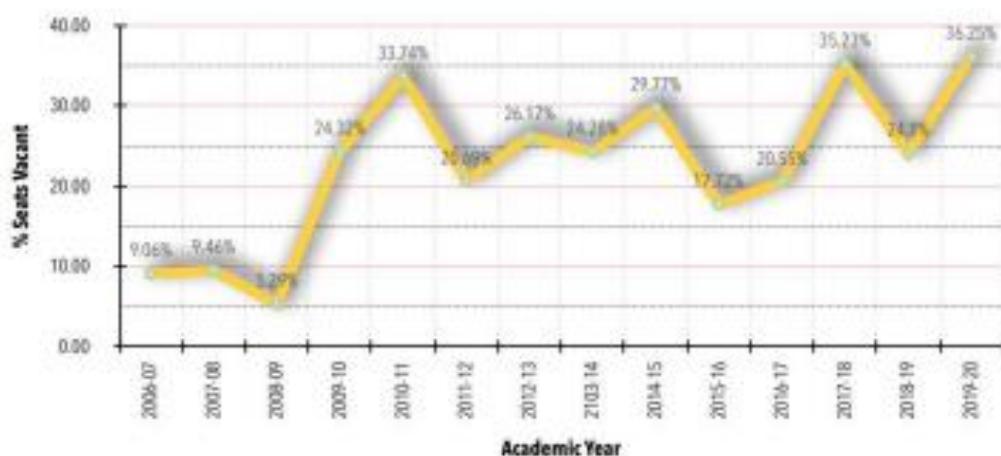
3.1.1 Growing number of Architecture Schools

Number of architecture colleges providing undergraduate degree in India in the year 2022 is close to 592 whereas the number was 117 in the year 2005 as written in the handbook of professional documents published by COA in 2005. This is by any standard an explosive growth rate. Architecture education is in difficult situation, due to higher education institutes getting privatized.

Year	Number of Institutions	New Number of Institutions Approved	Institutions Closed/ Zero Intake/ Restored	Total Number
2006-07	127	10	0	137
2007-08	137	4	2	139
2008-09	139	7	13	133
2009-10	133	25	6	152
2010-11	152	27	-7	186
2011-12	186	60	12	234
2012-13	234	67	-1	302
2013-14	302	35	0	337
2014-15	337	52	10	379
2015-16	379	64	20	423
2016-17	423	33	-2	458
2017-18	458	22	12	468
2018-19	468	20	11	477
2019-20	477	15	29	463

Source: [Preparing Architectural Education for Atmanirbhar Bharat | PREPARE@u® | IEI Conferences](#)

Late 2000's saw meaningless increase in the architecture institutes without upholding the council's minimum standards of architecture education, which came out to be the root cause behind the lowered architecture education quality. Mumbai had just three colleges twenty years ago offering the architecture degree course but now the number is over 17 in the year 2022. With only three institutions imparting architecture degree in Punjab in the year 1989, the number now is over 16. The first private institute IGCA which came up in the year 2003 in Ropar district. The approved and adopted perspective plan of CoA, for the growth of Architecture Education recommends just a check on the allotment of new schools based on the average ratio of architects to inhabitants established by the states.



Source: [Preparing Architectural Education for Atmanirbhar Bharat | PREPARE@u® | IEI Conferences](#)

The number of vacant seats in institutes have considerably increased from the year 2006-07 (vacant seats 9.06%) to 2019-20 (vacant seats 36.25%), this has led economic pressure on the institutes which in turn hire less faculty that leads to the deterioration in the teaching quality. The unrepresented growth in the number of institutions imparting architecture education has resulted in increasing number of schools with zero intake as well, which resulted in the shutting down of quite a few institutes, this is again a failure on the part of council.

3.1.2 Minimum Standards of Architecture Education

One of the major drawbacks with the MSAE 2020 is there is no name given to the degree in the document if the student wants to choose an exit option after three years. Neither CoA nor any college promotes this, keeping in mind their profit motive.

The content that is being taught has not changed much since ages. Instead of education being way ahead of its time, architecture education is ages behind. The entire syllabus is wrongly structured around design. A design undertaking is compulsorily involved in each semester where students are supposed to design studio projects like residence, bust stands, hospitals, schools, hotels, airports, museums etc. The knowledge a student has gained from other technical subjects is generally corelated with the level of design produced, as a student is expected to implicate all that in design. An incomplete design output limited to floor plans, elevations, substandard sections and visual representation is often a result of this culture. Majority of students are blank and they lack knowledge, when asked -how they would go about doing the same project practicality and how are they going to achieve the befitting results.

For architecture British brought Ecole De Beaux education system, which is still being practiced, but practical design exercises have now been reduced to mock-ups with a practical demeanor. In India, Schools are providing AE in the ways shown by British and Americans. But, are unable to build architects to reflect Indian craft, traditions and fulfill needs of Indian society.

With the liberalization of Indian economic policy and advent of globalization, the flow of data had been overwhelming leading to wide variety of directions, in which Indian practice is going haywire.

IIT Kharagpur (1951) was established in collaboration with MIT, London. In this larger technical university Architecture was a very small part. **Deeper understanding of the cultural linkages was lost in this process.** Our Indian culture is so different and diverse that modernism and minimalistic Architecture is not acceptable to the Indian Society. To serve the needs of the diversity in Indian culture Bauhaus AE is also not sufficient. Therefore, Architecture Education in India needs to be different. Initially architecture education was more focused on development of skills of the students which made the students competent enough in any situation. Their decision-making quality was developed. With due course of time theoretical inputs took over the space of skills development in the curriculum.

3.1.3 The descent in teaching quality

In the mid 90's, started the degradation of the profession, when the Ministry of Human Resource Development now known as the Ministry of Education, issued a notice which did not allow the faculty of architecture to involve in professional practice.

This change came in at a time, when a number of faculty members who were teaching in various institutions were also actively involved in the process of evolving a new Indian architecture. A lot of them maintained just a minimal link with the institutes where they were teaching and surrendered their full-time teaching jobs.

This resulted in a split between the practice and teaching, which in turn had an indicative negative effect on the education standard. With the passage of time many former institutes of architecture got converted into deemed universities. As the faculty of these institutes were not allowed to practice, so quite a few faculty members got themselves involved in pursuing a Masters in Architecture/ Planning degree or a PhD, which in turn helped them to secure their jobs and draw handsome salaries as tenured professors.

Had the faculty carried out research with teaching the scenario of architecture education would have been different, but as the research was never encouraged in architecture this did not happen and also with the annulment of link with actual construction and design because of MHRD's notification, the quality of teaching degraded.

All this had serious reverberations on the profession as a whole, with the ever increasing number of architecture institutions, substandard faculty and a considerable number of inefficiently-skilled graduates. With the huge ingress of new institutes around the country, it is next to impossible to find enough experienced teachers, because the teachers need to come from a generation, who studied at a time when there were only 20 colleges. So obviously there is neither enough teaching quality nor quantity, which results in fresh graduates taking up teaching positions.

3.1.4 Loss of Control By The Council

The process of degradation began a few decades ago, with government agencies inviting architects to submit bids for projects, which the architects shouldn't have accepted. They should have insisted that the CoA norms be followed both in letter and spirit and therefore the CoA should have cancelled the membership of architects who flouted CoA guidelines. Government agencies have persisted with even more blatant aggressive action just because of the silence shown by COA.

Like contractors, architects are now often asked to give in earnest money to acquire the conditions for bid for specific projects and all manner of arbitrary restrictions are included, like being asked to present that they have done a minimum value of work worth these many hundreds or thousands of crores within the last financial year, so as for their bids to be considered.

Other professionals like lawyers and chartered accountants have enforced regulations to make ensure that their domain isn't encroached upon. Why similar action has not been taken by COA? The CoA has even failed in its endeavor to prevent engineers from claiming that they're as capable as architects to style buildings.

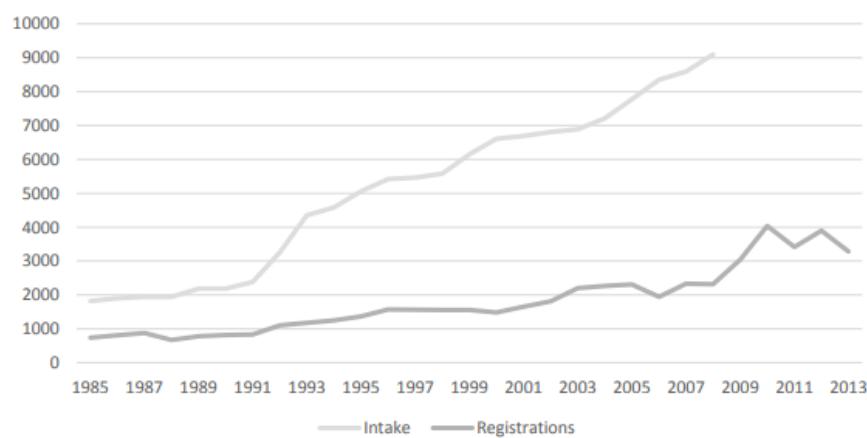
CoA members have allowed government representatives to enforce a series of actions which have degraded the standard of faculties of architecture approved by them and destroyed professional credibility.

Unlike other professions, the teaching of architecture involves an in-depth relationship with actual professional practice and hands-on involvement with construction is very important. Without this, young graduates are in a state of shock when they join office, as they have no idea of what real design implementation is all about.

3.2 Intake Vs Registration

In India a graduate of architecture must essentially be registered by the CoA as an architect if he/she wishes to practice in India. While similar professional bodies in other nations require that folks desirous of practicing within the field have a particular number of hours of practical experience, and also are required to have cleared a licensing examination before they are recognized as architects, there are not any such prerequisites set by the CoA.

If one was to form the admittedly safe assumption that students inducted to architecture programs aim to figure as architects, one would expect that registration for licenses for a specific year would reflect student intakes from five years before that year.

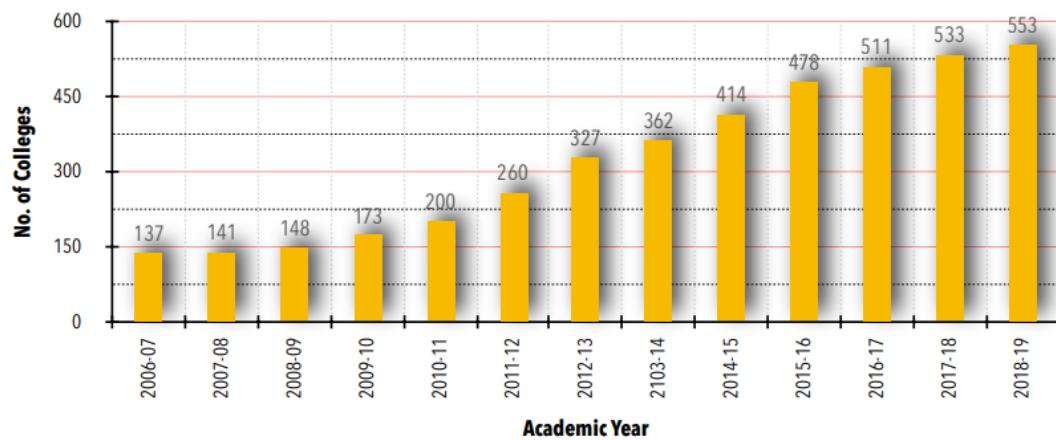


Intake Vs Registration

Source: https://www.academia.edu/26929625/Architecture_Education_-Then_and_Now

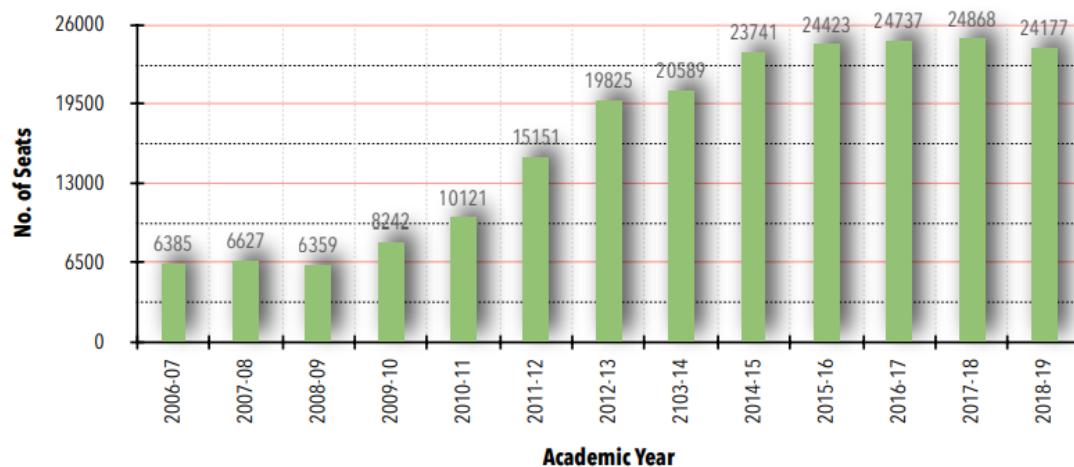
IV. RESULTS AND FINDINGS

Number of registered architect as on 18.1.2022 is 101662 out of which the number of practicing architects is around 10000. The fast-gaining rate of aspirants entering the profession, combined with the stagnant demand for services, leads to an alarming state of affairs. Findings from the analysis point at a robust requirement for architects to acquire teaching positions in colleges. It is a matter of greater concern that we will not find adequate faculty to cater the growing number of students. With a teacher-student ratio fixed at 1:10 by the CoA standards of Architectural Education, we require a teacher strength of over fifteen thousand for the 150000 (year 2022) student population across five years (figure received on the basis of student intake in schools of architecture, as provided by the CoA) **This implies that one in every seven architects would have to hold some sort of teaching position if the increasing intake is to be met.** It is a failure on the part of the CoA to foresee and prepare for what are expected to be some of the most stressful years in the field of architectural education in India.



Growth in the number of institutes since 2006

Source: <https://www.coa.gov.in/showfile.php?lang=1&level=1&sublinkid=753&lid=605>



Growth in number of seats since 2006

Source: <https://www.coa.gov.in/showfile.php?lang=1&level=1&sublinkid=753&lid=605>

The growth in student numbers as seen in the intake vs registration number clearly states that students taking admission has little to do with the desirability of an architecture career, it is just a **fallback option**. Professional degree is very coveted, this is the notion we come from.

Being a doctor or an engineer is the most desirable. But when that doesn't happen, a good fallback option is architecture, which is again a crisis, and with numerous colleges, it's quite easy now to get admission into one or another." Only for a small percentage of student's architecture is the first choice. Architecture education in India is going downhill, there are too many students, way too many colleges and dearth of good teachers as well as colleges. The real issues like what does a client want is never discussed during the course duration. After graduating when students get a reality check they are in state of a shock. Instead of preparing the students for outer world faculty is busy making them do design mock-ups.

V. THE WAY AHEAD

There is a need for the radical change to be adopted in Architecture Education, with the growing concern on quality of education and the paucity of the faculty to teach, it is important that the CoA relooks at the architecture program and help make it comparable to international standards. It is time for the CoA to revitalize the system before they keep on adding more number of schools. The first step would be to review the system thoroughly and seek the advice from the practicing and academic fraternity who have an open mind for a change and to create a robust system involving technologies and research into the program.

5.1 THE CURRICULUM

A more practical model would be to split the architecture program in three parts like 3+1+2+1. The first three years will be a Bachelor degree program like B.Arch (Bachelor of Architecture Studies), which should clearly be defined in the MSAE and should be advocated by the CoA and schools imparting architecture education, one year of practical training under any architectural firm. Then if the student wants to pursue higher studies he could join post-graduation March (Master of Architecture Studies), which will be a two year full time program. Then the final one year will be to work and produce a portfolio for registration as an architect with the CoA. This gives a chance for a student to reduce full time study and a break at third year level, enabling them work for a few years and then seriously think of doing the post-graduation to either register as an architect or enter academics. This method has been followed by Australia, New Zealand and many other countries are looking at the positive side of the program due to its employment prospects and the flexibility to the students to have bachelor degree in three years when they could be employed as, Architectural Designer, Design manager, Design Technician and Draftsperson.

5.2 TIE UPS WITH THE INDUSTRY

Theory and Practice. These two parts of the curriculum should form the paradigm for the contemporary architecture education. Lack of technical/ construction knowledge because of no industrial exposure is the main flaw in the architecture education which even the students point out. With new institutes coming up every year, COA must mend its MSAE and make it mandatory for all the upcoming as well as old institutions to have compulsory tie-ups with architectural firms and construction industries which can impart the much-needed hands-on experiences and real time education. This will make the students well versed with the ground reality. Just like a medical institute cannot be opened without a hospital, similarly an architecture institute should not be opened without its collaboration with a construction industry.

5.3 NEW SUBJECTS NEEDS TO BE INTRODUCED

The syllabus has been designed in a way that all the subjects actively or passively revolve around architecture design. Rather than giving lessons just for traditional subjects like building construction, building materials and architecture design, teaching and learning of new subjects must be encouraged. Following subjects must be included in the syllabus:

- Current Affairs
- Games/ Physical Education
- Digital presentations and software
- Social sciences
- Research, Analysis, and Documentation
- Psychology
- Law and Policies
- Human Resources and Management
- Economics and Finance
- Environment and Responsible Architecture
- Technical Communication



5.4 COMPULSORY UPDRADATION OF THE SYLLABUS

We need to revise/ upgrade the syllabus of Architecture Education keeping in mind the present-day trends and needs in architecture paradigms. Architecture model of Bauhaus can be adopted, where in workshops were integral part of education and not mere showpieces for the council's inspection. Students who join the course are not from 1960's, they are the generation Z and for them everything is just a click away, therefore the syllabus should reflect that change.

5.5 THE INSPECTIONS

CoA inspections are a farce in many ways and does not serve the purpose as many faculty are brought to be present as actors for the period of inspections who are paid a sitting fee, if not that then the visiting faculties are show as regular faculties and this practice is followed in almost every institute imparting architecture education. The Act actually stipulates that such inspections should happen once in five years, but not to be frequented as it happens now. Inspection of institutes by charging hefty fees should be put to an end.

VI. CONCLUSIONS

The suggested changes would be for the betterment of the future of the profession and will invite the more serious candidates to pursue architecture program who can eventually produce good architecture. A watershed moment is required for architecture education, there is a desperate need for a paradigm shift as was done by the master architect Walter Gropius in the early 19th century to take this noble profession to great heights.

The minimum standards of architecture education made imperative by the COA, are just the minimum bench mark which needs to be achieved by any institution. But sadly, most of the architecture schools in our country fails to achieve that minimum bench mark, forget about raising it. To complete the paperwork so much forgery is done at the time of inspection so that the governing body- CoA gives them extension of approval, this approval results in substandard education and its products.

In the 75th year of independence for an Atmanirbhar Indian Architecture we need to bring change in the entire system of architecture education, to rejoice the soul of Indian Architecture with the world. **For the growth and development of our country, a true potential of Architecture as a profession can only be realized when practice and education go hand in hand delivering world prime quality architects and architecture.**

To embrace the policies of a world class document NEP 2020 in the Minimum standards of Architecture Education, CoA needs to device new course of action to take our Architecture Education on new heights, thus by thinking globally and acting locally we can achieve all we aspire for and meet the settings of Atmanirbhar Bharat.

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