

# **Kongunadu Arts and Science College**

## **Coimbatore**

**Graduation Ceremony: 31.08.2008**

**Address by Prof. V.C. Kulandaiswamy**

I deem it a matter of great pleasure to address the Graduation Ceremony of this institution. I remember very vividly the occasion of my participation in a function organised to celebrate the third decennium of this college. We have today, in this country, nearly 20700 colleges: of them only 5270 have UGC recognition under section 12(B): of these 5270, only 2000 have been accredited; of these 2000, only 234 colleges enjoy autonomous status. Of them, only a few have a record of basic and applied research. I am happy to record with a sense of appreciation that Kongunadu Arts and Science College is one of the few such institutions that we are fortunate to have in this country.

I may assure the members of the audience that I am not exaggerating the importance or the status of this college in any way. It has 18 UG courses; 13 PG courses and 11 research programmes: of the 177 members of the faculty, 66 (nearly 40%) have Ph.D., and 67 of them (i.e. another 40%) have M.Phil.

The quality of the faculty is well reflected in the research programmes. 16 scholars have obtained Ph.D; and eight are awaiting results; 47 scholars have obtained M.Phil, and 96 research papers have been published by the faculty in national and international journals. One can easily see that the performance record that I have just now narrated, resembles a record, not from a young autonomous college, but from a full fledged university. I hope and trust that before long, I will have the pleasure of participating in a function to mark the upgradation of this institution into a Deemed University.

When we talk about education institutions in advanced countries, we refer to the prevalence of academic atmosphere. Now, the question arises as to what constitutes an academic atmosphere. It represents an environment where you have a community of scholars engaged in enquiry, investigation and search for knowledge: where you have pervasively learned discourses and discussions;

where you have throughout the year, seminars and symposia; where the lights burn in the laboratories late in the night, where the library is crowded. An institution that opens at 9.00 AM and closes at 4.00 or 5.00 P.M. as the routine, is only a day time tutorial college. Kongunadu Arts and Science college has, besides the M.Phil, and Ph.D., programmes, publication of research papers, also a record of 19 symposia and workshops and 66 Association meetings. In a good academic institution, it is not only the class room or the laboratory but the entire campus is a place of learning. This is what I refer to as academic atmosphere and Kongunadu Arts and Science College can be rightly proud of possessing such an atmosphere.

I must sincerely congratulate all of you who are graduating, on your having been able to study in such an institution.

We do have in this country, as already mentioned, 20700 colleges and 415 universities. It may appear to be an impressive number: but you must know that with all the expansion that has taken place, only 11 out of 100 of your age group are able to enter the portals of an institution of higher learning. You are one among the 11. All of you must be congratulated on that count also.

A time was, when it was necessary to get admission in an engineering college or a medical college to be ensured of a job or a promising career. It is no longer so. Opportunities are available for every discipline, if you have a really good academic record. The future is promising for all deserving candidates, whatever be the discipline in which they are qualified.

The Indian economy has been growing at the rate of 8.5 to 9.0% in the last few years. If we maintain this rate of growth, we would become a developed country by 2020. At this point, we may raise the question as to what are likely to be the constraints for our development.

- Natural resources will not be a constraint.
- Even finance may not be a constraint.
- You may be surprised if I say that:
  - i. trained skill
  - ii. educated talent and
  - iii. research output

are likely to be the constraints for our development.

The world Bank conducted in 1965 a survey in 34 developed countries for the period from 1850 to 1960. The important finding of the survey was that in all these countries, economic development began only with the achievement of universal literacy. Literacy has become our Achilles heel. The number of illiterate people in India in 1981 was 30 crores. With all our efforts to promote literacy, population growth outstripped our increase in literacy and the number after 10 years was 32 crores in 1991. There was no significant improvement when reckoned in terms of numbers even in 2001. The percentage of literacy was 65.2 in 2001, while the population stood at 102.7 crores.

We compare often, our economic progress with that of China. The cultural revolution in China ended in 1976. China launched its new development programme thereafter from 1978. In 1979 the literacy in China was 70% while in India, even in 1981, the literacy was 43.6%. In 1991, almost a decade later, when we, in India, adopted the new economic policy, the literacy rate was 52.2% i.e., half the population was still illiterate. **In other words, the people in India in 1991 were not as well prepared for development, as the people in China were even a decade earlier. We have to realise that we have failed to reach the threshold level of literacy needed for development in a knowledge era,** both in terms of number and quality. Universal primary education is still a challenge before us.

We come next to the productivity of the manpower available. Economic development depends on the productivity of the labour force. Really, the difference in economic development between an advanced country and a developing country, is the difference in the productivity between them. In an advanced country, the productivity of every member of the society is significantly higher. The productivity per every sq. metre of land; every cubic metre of water is higher.

On what does productivity depend? It depends entirely on the skill development of the labour force. In India 9.0% of the work force is in the organised sector and 91.0% is in the unorganised sector. The labour in the unorganised sector is partly illiterate; and as for the literate component, it is mostly untrained. Consequently, the productivity of the work force in the unorganised

sector, which accounts for 91% is low. We cannot create wealth unless we ensure improvement in productivity in the sector where large work force is employed.

It is difficult to believe, but true, that as a nation, we have totally neglected vocational training. It is said that in India only about 5.0% of the labour force is trained. It is approximately 65% to 75% in most of the developed nations; above 80% in some of the advanced countries. We have today 20700 colleges and 415 universities that produce B.A; B.Sc., M.A. and M.Sc. and equivalent degree holders. But the number of institutions that prepare the carpenter, the mason, the plumber, the mechanic or similar manpower may not be more than 15000 or 20000. Data are not readily available in this regard, since many ministries are involved in one or the other of skilled manpower preparation. But the number is not large. It may be stated for comparison that the number is said to be around 500,000 in China. It is also stated that China has introduced 4000 trades for short term courses.

There is a basic deficiency in our culture. We have not got out of our white collar mentality. We talk about dignity of labour, but we do not really consider, labour as dignified. If we take Tamil Nadu, for example, the intake capacity for engineering degree in 2006-2007 was 1.1 lakh; whereas the ITI student intake was 80,000. In Tamilnadu there were in 2006-07, nearly 1400 institutions where students could pursue a programme leading to a degree, but the number of ITI's and Polytechnics put together were only around 920. In other words we are producing more engineers and technologists than technicians masons, carpenters, plumbers, machinists and similar category of people. Obviously this number must be much more since we need technicians and skilled workmen in much larger numbers than technologists.

We may foresee that a number of industries and service organizations will be established by the Central and State Governments, private Indian industries and also foreign corporations. All of them would need manpower at all levels. For instance a large number of diamond cutting and polishing industry has migrated from Belgium to India, creating nearly 500,000 jobs. We need the necessary work force to meet the emerging demand in this trade.

You are aware that we have done extremely well in I.T. industry. It is not only because of the degree holders from the 1670 Engineering colleges that we

have, but also because of the 50,000 training institutions that we have in the private sector in the field of computers. Therefore a really massive demand unfolds before us for trained sub-university level manpower and craftsmen.

It is particularly important to improve the productivity in agriculture. The contribution of agriculture to the GDP is not commensurate with the labour force employed. It is realised that agricultural practice must be modernised and there must be adequate technology input to improve productivity. In any country, ultimately, the availability of land and water is limited. These are also among the natural resources that cannot be imported. Consequently, the productivity must increase, which is possible only with trained manpower. In a country like Germany, even the son of a farmer cannot do farming, unless he completes the minimum compulsory education and takes the training required for farming. The quality of any product in a country like Germany is as much due to the quality of training, as it is to the quality of education.

Lastly, we may come to higher education and research. There has no doubt been a spurt in higher education. A large number of new universities and colleges, have been started. It may appear, as though, we have too many institutions of higher education. But the fact remains that only 10 or 11 out of 100 boys and girls in the age group of 18 to 23 are able to get higher education. The world average is around 21. It is reported to be around 55% for developed countries and about 36.0% for countries in transition. It is above 80% in countries like the USA and Canada. Even to arrive at the world average, we have to go a long way.

It is our objective to become a developed nation by 2020. There is a threshold in literacy: threshold in skilled manpower and threshold in GER [Gross Enrolment Ratio] in higher education. We may need to reach a GER of 20% by 2020. The 11<sup>th</sup> plan objective is to reach 15% by 2011. It is therefore seen that while we have reached a GER of 10 to 11% during the last 150 years since the beginning of university education in India, we have to double it in the next 12 years. It is certainly a formidable challenge. We have to increase the number of institutions and also substantially increase the admission strength of existing institutions. We do not have much time. We discuss, debate, argue and we also have people, who as a matter of policy, object to every new move. Consequently,

the sad fact remains that since the report of the Higher Education Commission [1948-49] headed by Dr. Radhakrishnan, we have many valuable reports that are often quoted but unimplemented. It is my considered opinion that higher education and research in India call for bold and urgent action, bordering on major revolution.

We are living in a world where speed is a prerequisite for success. The industrial revolution started in Britain in the 18<sup>th</sup> century.

- Starting in 1780, Britain took 58 years to double its GDP.
- The USA took 47 years, starting from 1839.
- Japan took 34 years from 1865
- South Korea took 11 years from 1960.
- China achieved it in 9 years starting from 1978

In conclusion, from higher education, I come to a related area, that is research. We are living in a knowledge era and in an age of globalization. We have to be necessarily competitive. This would require that we are able to develop new technologies on our own, which demands significant research capability.

There is a widespread feeling that the research activity has slowed down in India during the last few years. We have to necessarily compare ourselves with China. In 1980, the research publication in India was around 10600, the number in China then was 690. When we come to 1990, India produced 11560 research papers, while the number for China was 6990. While between 1980 and 1990 there was no appreciable increase in India, the Chinese publication has increased 10 times. In 2005 India published about 25230 papers. The number for China was 72360. We may have to examine the areas of weakness in our research activity. In all the advanced countries, institutions of higher education constitute the major contributor of research output, especially in basic research. The share of higher education in research expenditure in India in 2002 – 2003 was 4.2%. The average in the case of advanced countries is from 15% to 30%. The share of higher education in India is low not because of dearth of funds, but because of the inability of our educational institutions to claim a greater share and spend the amount meaningfully. Because of our affiliating system, most of our universities have become, mainly, examining bodies and an expert like Dr. C.N.R. Rao has stated that our universities have stopped doing research.

All over the world, higher education takes place in university campuses. But in India higher education is in affiliated colleges. 90% of the Undergraduate students and 66% of the Postgraduate students are in the affiliated colleges. 83% of the faculty is also in the affiliated colleges. The affiliated colleges have no professor, no regular reader and only different categories of lecturers. Their responsibilities do not include research. Consequently while 100% of the faculty in higher education in other countries are involved in research or atleast expected to do research, only 17% of the faculty members in higher education in India have research as part of their responsibility. This happens to be the greatest weakness in our higher education system. As I mentioned earlier, while higher education takes place in large university campuses that have teaching and research all over the world, higher education in India takes place in affiliated colleges, which are small in size, mostly underequipped, understaffed, where research is neither done nor is it expected to be done. The most important structural change needed in higher education is the transformation of higher education from affiliated colleges to university campuses. This would need a massive increase in the number of universities. Unless this important structural change is done, there is no future for higher education in India, whatever be the investment of funds or other cosmetic changes.

The number of universities in India is low. Germany with a population of 82 million has 350 universities. Japan with a population 127 million has 726 universities. The U.S.A with a population of 305 million has over 2500 universities. The National Knowledge Commission, appointed by the Prime Minister, has stated in its report of 2006, that China has authorized in the previous 3 years, the creation of 1250 universities. For a country like India, with a population of 110 crores, 415 universities are too low. On 12.01.2004 when I was participating in the valedictory function of the Pearl festival of this institution, I said from this platform that India needs atleast 2000 universities by 2020. It has been widely reported. It was in January 2004 that I made the statement. The National Knowledge Commission, in its report submitted to the Prime Minister in 2006, has stated that by 2015 India needs 1500 universities. If 1500 universities are needed by 2015, then my proposal in 2004, two years earlier than the National Knowledge Commission, that

we need 2000 universities by 2020 is quite justifiable. The question arises as to how this can be achieved. Universities have to be established by the following providers:

1. Central Government
2. State Governments
3. Autonomous Bodies and Private Providers

A nation must have a reasonably enduring policy in education. Any reform or change in policy in education takes time before we could see the results of the reform. Therefore education policy cannot and should not change from Government to Government or from Minister to Minister. There must be a common agreed policy among atleast major political parties.

An area of debate is the role of private providers. In my opinion, there is not much to debate as far as their participation is concerned. In 2001, private participation in India accounted for 43% of all the institutions and 33% of the students. In 2006, private participation increased and accounted for 63% of all the institutions and 51% of the students. With nearly 2/3 of the institutions and more than half of the students in the private sector, what is there to debate or discuss about their role in higher education. If we take Tamilnadu, 60% of Arts and Science colleges and more than 80 to 85% of professional education, barring medicine and agriculture, are in private institutions. The world trend is in favour of increasing private participation in higher education. It is necessary for the nation as a whole to formulate a policy to encourage, guide and at the same time regulate private participation.

Complaints are made about abuses. Abuses there may be; abuses there are. But it is not beyond our genius to minimize it. If the administrative and regulatory machinery is efficient and more than that sincere and honest, It is certainly possible to bring about discipline in the private sector.

In conclusion I may say that education from literacy to research, looms large on our path of progress. It is only appropriate to quote what the Maha Kavi Bharathi said nearly a century ago;



அன்ன சத்திரம் ஆயிரம் வைத்தல்  
ஆல யம்பதி னாயிரம் நாட்டல்  
பின்னர் உள்ள கருமங்களாயாவும்  
பெயர்விளங்கி ஒளிர நிறுத்தல்,  
அன்ன யாவினும் புண்ணியம் கோடி  
ஆங்கோர் ஏழைக்கு எழுத்தறிவித்தல்  
என்று கூறிவிட்டு.

நிதிமி குந்தவர் பொற்குவை தாரீர்  
நிதி குறைந்தவர் காசுகள் தாரீர்!  
அதுவும் அற்றவர் வாய்ச்சொல் அருளீர்!  
என்று கூறிக் கொண்டே வந்தவன். இறுதி முடிவாக  
எதுவும் நல்கிஇங்கு எவ்வகை யானும்  
இப்பெ ரும்பணி நாட்டுவும் வாரீர்  
என்று அழைத்தான். அந்த அழைப்பு இன்றும் பொருந்தும்.

It is Bharathi's proclamation that we must achieve our goal in education at all levels, whatever be the method and whatever be the means.

I once again congratulate all the candidates who are graduating this year and wish them a very successful and prosperous career.