

A study of Quality of Higher Education: Quality of Faculty in the Departments of Economics in Kerala

Research report submitted to Kerala State Planning Board
Student Internship Programme 2016-17

Under the supervision of

Dr. Santhosh Vidhyadharan (Perspective Planning Division)
& Dr. D. Narayana

By

Banantika Datta

MA Applied Economics
Centre for Development Studies, Thiruvananthapuram



Kerala State Planning Board

Government of Kerala

Declaration

I, Ms. Banantika Datta, hereby declare that this project report is the record of authentic work carried out by me during the period from 9th May 2016 to 22nd June 2016 and has not been submitted to any other University or Institute.

Ms. Banantika Datta

Acknowledgement

I am thankful to Kerala State Planning Board for giving me the opportunity to intern in their prestigious institution.

I am grateful to Dr. V. Santhosh, Chief, Perspective Planning Division for helping me choose the topic for my internship work.

I would like to extend my heartfelt gratitude to Dr. Narayana Delampady for mentoring me throughout this project. His invaluable guidance and constant feedback on my progress has been indispensable for the successful completion of this project.

Lastly, I would like to express my gratefulness to my parents and friends for encouraging me to do this project. It was a great learning experience.

Ms. Banantika Datta

Contents

Title.....	4
Introduction	4
Need for the study	6
Scope of the Study	7
Objective	9
Hypothesis.....	10
Limitations.....	10
Indicators used to assess the Quality of Higher Education	16
NAAC	22
Methodology.....	30
Analysis and Findings	32
Conclusion and Recommendation	39
Bibliography	41
Appendix.....	43

Title

A study of Quality of Higher Education: Quality of Faculty in the Departments of Economics in Kerala

Introduction

Kerala has been internationally acclaimed for its achievements in education some of which can be traced to the initiatives of missionaries since the early 19th century and Travancore kings since 1904. Travancore government's expenditure on education and health increased sharply from the late 19th century (Ramachandran, 1997). Around early 1900s, the Travancore government initiated mass education efforts for children of all castes, including the so-called untouchables, contrary to the primarily elitist state initiative of the 19th century. The state of Kerala was formed in 1956. Efforts at universalization of education continued in the newly formed state of Kerala and by the 1980s it had met the guidelines of the Education Commission (1964-65) of spending more than 6% of the GSDP on education. The task was shared by the social organisations such as Nair Service Society (NSS), Sree Narayana Dharma ParipalanaYogam (SNDP), Christian denominations and Muslim Education Society along with the private sector. Owing to these manifold initiatives Kerala has managed to reduce disparity in education among the major religious groups and Scheduled Castes and Scheduled Tribes (Statistics of School Education(2007–08)).

Kerala is always appreciated for its high literacy rate and is often cited as a role model for other states. Kerala focused excessively on expansion of school education. In the 1980s, it was among the first states to implement the *midday meal* programme with a view to enhance enrolment and attendance and improve nutritional status of children. Other schemes like District Primary Education Programme (DPEP) and Sarva Siksha Abhiyan (SSA) have also made significant contributions to spread education in the State.

Over the past decade Kerala has performed commendably in primary and secondary education. According to Census 2011, Kerala has a literacy rate of 94%, about 20 percentage points more than the national average. The Annual Status of Education Report 2012 (ASER) shows that the schools in rural Kerala meet the educational standards as per Right to Education (RTE) norms (Annual Status of Education Report (Rural), 2013). Kerala has a lower pupil-teacher ratio compared to India (Selected Educational Statistics, 2007-08). The drop-out rates (2007-08) for classes I-VIII are almost zero in Kerala which is far less than India¹ (Statistics Of School Education, 2007-08). These achievements support the fact that Kerala has done significantly well in providing school education.

The Kerala Perspective Plan (KPP) 2030 highlights some of these achievements and also mentions some challenges faced by Kerala today. To note a few, the quality of school education is deteriorating, poor pre-school education etc. Although the enrolment in private schools increased by 79% between 1991 and 2002, but according to an NGO Pratham, in

¹ http://mhrd.gov.in/sites/upload_files/mhrd/files/SES-School-2007-08.pdf

2012 in Kerala less than 60 percent students of 5th grade could read a 2nd standard textbook. (The Annual Status of Education Report, ASER 2012)

Now, turning towards higher education, the expansion of college education began around 1960s in response to the growing demands from various constituencies of the state. In 2007, the Kerala State Higher Education Council (KSHEC) was constituted to initiate reforms relating to infrastructure, connectivity, research, faculty recruitment, autonomy and accreditation in higher education.

There is an excessive growth in technical and professional education due to higher job prospects. Table 1 clearly shows that the number of universities increased from 5 to 11 during 1986-87 to 2004-05, whereas there was a many fold increase in the Engineering, Technical and Architecture colleges and medical colleges. In contrast, the Arts, Science and Commerce colleges did not expand at the same rate. This clearly shows the inclination of the present graduates towards pursuing technical or medical courses.

Table 1: Increase in the number of institutions of higher education from 1986-87 to 2004-05

YEAR	No. of Institutions						
	Universities/ Deemed Universities/ Institutions of National Importance	Research Institutions	Arts, Science & Commerce Colleges	Engg., Tech., & Arch. Colleges	Medical Colleges(Allop/ Ayur/Homeo/ Unani/Nurs./ Pharm. Etc.	Teacher Training Colleges	Others
1986-87*	5	0	129	6	16	19	19
1999-2000*	8	0	186	25	21	19	90
2000-01*	8	1	186	23	20	19	104
2001-02*	7	1	186	43	23	21	82
2002-03*	9	1	186	66	40	21	82
2003-04*	9	1	186	66	40	21	82
2004-05*	11	1	186	66	40	21	82

* Provisional

Source: (Selected Educational Statistics, 2004-05), pg – 136

From table 2 we can observe that in the year 2007-08, the percentage of unaided colleges was significantly higher in case of Engineering, Medical, Nursing and Pharmacy colleges as compared to Arts and Science colleges.

Table 2: The percentage of unaided colleges in 1991 and 2007-08

Type of Institution	1991					2007-08				
	Govt. Regular	Aided	Unaided	Total	% of Unaided in Total	Govt. Regular	Aided	Unaided	Total	% of Unaided in Total
Arts and Science Colleges	40	132	0	172	0.0	39	150	153	342	44.7
Polytechnics	24	6	0	30	0.0	43	6	9	58	15.5
Engineering Colleges	5	3	0	8	0.0	11	3	72	86	83.7
Medical Colleges	5	0	0	5	0.0	5	0	8	13	61.5
Ayurveda Colleges	3	2	1	6	16.7	3	2	8	13	61.5
Dental Colleges	2	0	0	2	0.0	3	0	6	9	66.7
Homoeo Colleges	2	3	0	5	0.0	2	3	0	5	0.0
Nursing Colleges	3	0	0	3	0.0	5	0	42	47	89.4
Pharmacy Colleges	1	0	0	1	0.0	2	0	17	19	89.5

Source²: (Zachariah, 2010, p. 2)

This clearly shows a large increase in the number of educational institutions in the State during the last two decades, which is a good sign of progress in higher education.

Kerala wishes to outshine not only India but also the world. Kerala aims to achieve the educational standards of Finland and attract foreign students (Kerala Perspective Plan 2030). In this direction, the *hub and spoke model* has been proposed, in which the global education cities will be connected with knowledge spokes in each district based on its competitive advantages in a specialised branch of knowledge and activity. For instance, Wayanad may be developed for veterinary sciences; Alappuzha for ayurvedic preparations; Kannur for textiles sciences; and Ernakulam for industrial training and research. There will be a higher emphasis on innovation and research in the higher education sector.

Need for the study

Quality of education is very important for achieving sustainable growth in any economy. The Kerala Perspective Plan (KPP) points out some major setbacks in the area of higher education. The most important issue being the quality of higher education, which has to be improved if Kerala aspires to be a global brand in education by 2030.

Second being large out of pocket expenses on private tuitions, suggested by the Human Development Report 2005, pg-97 “..... It is observed that more than four-fifths of the students who appeared for the entrance belonged to the middle income and rich sections of society.” (Human Development Report 2005)

² <http://csesindia.org/admin/modules/cms/docs/publication/26.pdf>

Third problem being educated unemployment, as the Human Development Report 2005, pg-94 says “...the heavy concentration of matriculates (10th standard) among the educated unemployed – there are almost 100,000 unemployed certificate holders – without any skill acquisition is at the core of the unemployment problem, which has to be addressed and given serious attention. The problem is not only one of mismatch but also quality.” This leads to the concept of *returns to education*. The 66th round of the Survey on Employment and Unemployment, conducted by the National Sample Survey Organisation in 2009–10, brings to light two interesting features.

Table 3: Returns to Education (%): 2009-10

Education level	Kerala	India
Primary	2.63	5.35
Middle	2.97	4.96
Secondary	4.03	11.65
Higher secondary	9.42	16.1
Graduation & above	19.11	13.71

Source: Kerala Perspective Plan 2030, pg - 30

First, while the average returns peak at the higher secondary education level in the country as a whole, the same is not true of Kerala where it is observed that the returns increase with the increase in education levels as shown in table 3. Two, the average returns up to the higher secondary level is higher in the country as a whole than in Kerala; this is not true in the case of graduation and higher levels of education. This simply reflects the fact that a larger proportion of students go for higher studies, as only those who enrol for higher education are able to get high-paying jobs in Kerala. In other words, the GER is higher in higher education in Kerala vis-à-vis the rest of India.

This clearly portrays the condition of youth in Kerala, where a large number of households are dependent on remittances which discourage them from working at low wages. They expect higher salaries, but they are not qualified for the jobs. Hence to work in Kerala for a good salary, one has to take higher educational degrees and hence the ever increasing number of graduates and colleges. In the mist of numbers and statistics, the quality is often neglected. Therefore there is a dire need to study the quality of higher education.

Thus in this study, we try to look at the *quality of higher education*.

Scope of the Study

Kerala has excelled in education in quantitative terms but the felt need now is to improve the quality. However the concern is what are the indicators of quality of education. Presently the most popular indicator used is literacy rate and Kerala has always boasted of its high literacy

rate. But literacy rate does not adequately capture the quality of higher education. A few other prominent indicators used are number of colleges and universities in the state, percentage of GSDP spent on higher education, enrolment in higher education, research publications, job prospects, admission procedure and student-teacher ratio. Researchers have often used these indicators to study Kerala and to compare ‘Kerala model’ with other states, by which Kerala is always portrayed as the epitome of education. (Lewis, 1997).

Every year thousands of students passing the higher secondary (12th standard) examination choose a college of their interest, according to the rankings of various agencies like *India Today*. Rankings of top 30 Best Universities in the country by India Today in the year 2015 was based on indicators like infrastructure, number of faculty, placements, governance, reputation, admission procedure etc. as shown in table 4. These ratings are probably one of the quick and convenient way to get an idea of the various institutes and for easy comparison.

Table 4: Top 30 Best Universities in the country by India Today- Nielsen survey in the year 2015.

OVERALL RANK 2014	RANK 2014	RANK 2013	UNIVERSITY	REPUTATION OF THE UNIVERSITY	QUALITY OF ACADEMIC INPUT	FACULTY	RESEARCH PUBLICATIONS/ REPORTS/ PRODUCTS	STUDENT CARE	INFRASTRUCTURE	INNOVATION AND GOVERNANCE	ADMISSION PROCEDURE	PLACEMENT OPPORTUNITIES	GLOBAL EXPOSURE	SECURITY MEASURES FOR STUDENTS	TOTAL PERCEPTUAL SCORE	PERCEPTUAL RANKING	TOTAL FACTUAL SCORE	FACTUAL RANKING	FINAL SCORE	FINAL RANKING	INDEXED TO100
> 1	1	1	University of Delhi, Delhi	1	1	1	1	1	1	1	1	1	1	1	73060	1	11838	1	42449	1	100.00
^ 2	3	4	Banaras Hindu University, Varanasi	2	2	2	2	4	4	3	3	3	3	2	45392	3	8973	9	27182	2	64.04
^ 3	4	3	Jawaharlal Nehru University, New Delhi	5	4	3	3	2	3	2	2	2	2	3	45606	2	8525	10	27065	3	63.76
^ 4	6	8	Aligarh Muslim University, Aligarh	3	3	4	4	3	2	4	4	4	4	4	41756	4	8975	8	25366	4	59.76
^ 5	7	7	Osmania University, Hyderabad	4	5	5	6	6	6	7	5	5	6	6	28685	5	10219	5	19452	5	45.82
^ 6	5	6	University of Hyderabad, Hyderabad	6	7	6	7	5	5	5	7	7	5	5	26389	6	8447	11	17418	6	41.03
^ 7	8	9	Jamia Millia Islamia, Delhi	6	6	6	4	6	8	6	6	8	7	7	25639	7	5220	24	15430	7	36.35
^ 8	10	12	Andhra University, Visakhapatnam	9	9	10	10	9	9	9	9	9	8	8	14494	9	10952	2	12723	8	29.97
^ 9	26	19	University of Kerala, Thiruvananthapuram	8	8	8	8	8	7	8	8	6	8	9	20899	8	4006	29	12452	9	29.33
^ 10	15	13	Kurukshetra University, Kurukshetra	10	15	11	11	10	11	13	12	13	13	13	9440	13	10724	3	10082	10	23.75
^ 11	18	23	Christ University, Bengaluru	10	10	9	9	11	10	13	11	10	10	10	11785	10	7513	16	9649	11	22.73
^ 12	17	22	Guru Nanak Dev University, Amritsar	14	11	14	11	11	11	11	10	12	11	10	10220	12	7795	14	9008	12	21.22
^ 13	11	16	Bangalore University, Bengaluru	10	11	11	11	11	11	10	13	10	11	13	10432	11	7275	17	8854	13	20.86
^ 14	12	18	M.S. University, Baroda, Vadodara	14	11	11	11	11	15	13	13	13	13	13	9052	14	8209	12	8630	14	20.33
^ 15	13	15	Birla Institute of Technology & Science, Pilani	17	19	14	11	11	11	12	13	16	13	13	7848	15	6610	19	7229	15	17.03
^ 16	30	-	Symbiosis International University, Pune	20	14	17	16	21	16	20	21	26	20	12	4262	18	9946	6	7104	16	16.74
^ 17	20	31	Banasthali Vidyapeeth, Jaipur	18	22	19	23	19	25	21	19	19	19	19	1832	21	10298	4	6065	17	14.29
^ 18	39	46	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	13	16	16	17	16	16	13	16	15	18	17	6706	16	5287	23	5997	18	14.13
^ 19	23	25	University of Calicut, Malappuram	20	17	19	17	16	22	17	17	17	17	18	4328	17	6316	20	5322	19	12.54
^ 20	21	17	Jain University, Bengaluru	20	22	19	19	18	19	18	24	26	24	25	1749	22	8124	13	4936	20	11.63
^ 21	19	21	Amity University, Noida	27	22	19	23	21	25	25	24	26	24	19	204	30	9618	7	4911	21	11.57
> 22	22	-	Himachal Pradesh University, Shimla	27	22	19	23	21	25	21	17	17	24	25	906	25	6799	18	3852	22	9.07
^ 23	32	42	SRM Institute of Science and Technology, Kancheepuram	27	22	19	23	21	25	25	24	26	24	24	102	33	7581	15	3842	23	9.05
^ 24	25	-	Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur	16	17	19	19	21	16	18	19	19	21	19	3051	19	4598	28	3825	24	9.01
^ 25	44	49	Mahatma Gandhi Kashi Vidyapeeth, Varanasi	20	22	18	19	20	22	23	21	23	21	23	2055	20	4907	26	3481	25	8.20
^ 26	34	35	Bharati Vidyapeeth, Pune	18	20	19	23	21	21	25	24	19	24	19	1365	24	5136	25	3201	26	7.66
^ 27	28	39	Burdwan University, Burdwan	27	22	19	19	21	22	23	21	23	16	25	1597	23	4806	27	3201	27	7.54
^ 28	42	-	Saurashtra University, Rajkot	20	22	19	23	21	19	25	24	26	24	25	679	26	5695	21	3187	28	7.51
^ 29	38	47	Jaipur National University, Jaipur	27	22	19	23	21	25	25	24	25	24	25	142	31	5578	22	2860	29	6.74
^ 30	-	48	Hemchandracharya North Gujarat University, Patan	27	22	19	23	21	25	25	24	19	24	25	283	28	3928	31	2106	30	4.96

**** Calcutta University, Kolkata, Goa University, Panaji, SNDT Womens University, Mumbai, Utkal University, Bhubaneswar, Sant Gadge Baba Amravati University, Amravati are not featured in this ranking as they could not share factual data on time

Source: <http://www.jnujaipur.ac.in/news/63/64/65/JNU-Jaipur-ranked-among-top-30-Universities-of-India>

But some of these indicators may not be able to indicate the true quality of higher education in these institutes. Hence there can be some improved indicators for quality of higher education, some of which will be discussed in this study.

Similarly the *National Institutional Ranking Framework (NIRF)* provides for ranking of institutions under five broad generic parameters, namely: i) Teaching, Learning and Resources; ii) Research, Consulting and Collaborative Performance; iii) Graduation Outcome; iv) Outreach and Inclusivity; and v) Perception.

Table 5: NIRF Parameters for Ranking of Institutions

Teaching, Learning and Resources (TLR)	Research Productivity, Impact and IPR (RPII)
Faculty Student Ratio - Permanent Faculty (FSR)	Combined Metric for Publications (PU)
Faculty Student Ratio - Visiting Faculty (FSR)	Combined Metric for Citations (CI)
Metric for Faculty with Ph.D. and Experience (FQE)	Intellectual Property Right and Patents (IPR)
Metric for Library, Studio & Laboratory Facilities (LL)	% of Collaborative Publications and Patents (CP)
Metric for Sports and Extra Curricular Facilities (SEC)	Footprint of Projects and Professional Practice (FPPP)
Metric for Teaching and Innovation (TI)	Graduation Outcome (GO)
Outreach and Inclusivity (OI)	Performance in University Examinations (PUE)
Outreach Footprint (Continuing Education, Services) (CES)	Performance in Public Examinations (PPE)
Percentage of Students from Other States / Countries (RD)	Performance in Placement, Higher Studies and Entrepreneurship (PHE)
Percentage of Women Students and Faculty (WS)	Mean Salary for Employment (MS)
Percentage of Economically and Socially Disadvantaged Students (ESDS)	Perception (PR)
Facilities for Physically Challenged / Differently Abled Persons	Process for Peer Rating in Category (PR) and Applications to Seat Ratio (SR)

Source: (NIRF, 2016); pp - 2

Another popular indicator which represents the quality of an institute is the *National Assessment and Accreditation Council (NAAC)* grade, which is discussed in detail in this report.

The focus of our report is the faculty quality that we believe is the most important factor affecting the quality of education in an institution. The students are mostly benefited from their teachers and their guidance is the most important part of education along with other physical components of the organisation like infrastructure, labs, libraries, placement cells, research facility etc.

The scope of the study is limited to the educational qualifications of the teachers as an indicator. However there is large number of other parameters to measure the quality of higher education. The study can be extended to a large extent by considering other parameters.

The researcher however understands that there can be faculties who have publications in other reputed journals, but this study is just an attempt to check the publication at a common uniform level. EPW being a very popular weekly journal for Economic articles was chosen for this study. It can be checked for other standardised journals also in further research.

Objective

1. To study the presently used indicators to measure quality of higher education.

2. To study the faculty quality in the Departments of Economics based on their educational qualifications and Research publications.
3. To study the relationship between the score obtained by researcher on quality of faculty and overall score given by NAAC to those colleges.

Hypothesis

Hypothesis 1:

H₀: No correlation between the score calculated on the basis of teacher quality and the score given by NAAC

H₁: There is a correlation between the score calculated on the basis of teacher quality and the score given by NAAC

Hypothesis 2:

H₀: There is no difference between the score calculated on the basis of teacher quality and the score given by NAAC

H₁: There is difference between the score calculated on the basis of teacher quality and the score given by NAAC

Limitations

1. Here researcher has taken the parameters for measuring the quality of faculty are
 - i) Educational Qualification and
 - ii) Research publications
2. Only the faculty of Economics Department are considered.
3. As CDS is a research institute for Economics, hence it is an outlier.
4. The colleges where faculty information is available on their websites are only considered.
5. All the remaining colleges were contacted through email for faculty information, but none of them have responded, except Govt. Arts and Science College, Kozhikode.
6. Only Economic and Political Weekly (EPW) journal is considered for studying the publications by the faculty members.
7. A letter was sent to the Directorate of Collegiate Education, Thiruvananthapuram, for information of the faculty members, but researcher has not received any information.

History of Higher Educational Development in Kerala

The growth in the number of higher educational institutions had been extremely slow in all the regions of Kerala till the end of the colonial period. In 1947, there were only 14 colleges in the entire state. It was during the period 1948-55 that the number of colleges increased substantially (Planning Board, 2008). About 17 new colleges were started in different parts of Travancore-Cochin. All these were private colleges. Immediately after the formation of Kerala state, the name of the university was changed from Travancore University to the University of Kerala (1957).

The first election after the foundation of Kerala state installed a communist government under the leadership of EMS Namboothirippad. Mr. Joseph Mundasserry was the minister for education. His first effort was the unification of higher education in the state. The Kerala University Act 1957 replaced the Travancore University Act 1937. Colleges in the whole of Kerala came under its jurisdiction. The distinguished economist and former Finance Minister Dr. John Mathai became the Vice Chancellor of the university. The Kerala Education Act 1958 and the Kerala Education Rules 1959 were the brilliant pieces of legislation in the state.

At present, there are seven universities and three national institutions with deemed university status in Kerala.

The 'University of Calicut' was established in 1968 in a 600 acre campus at Thenjippalam. The university made notable achievements in academic fields such as syllabus reforms and examination reforms and started new departments like drama, management, and life-science. (Jaleel, 1997)

The 'Cochin University of Science and Technology' also started with a new orientation as a federal university. It was set up in 1971 with headquarters at Cochin. Several new departments like marine engineering, industrial fisheries and ship technology were established. An expert committee recommended that the institution should be developed as a full scale science and technology university. The University Act was suitably amended. It is now well known as an advanced institution in science and technology and has embarked up on new areas of research in collaboration with foreign universities.

The year 1971 witnessed the birth of another remarkable university, namely, the 'Kerala Agricultural University' at Thrissur. Already there was a well-developed agricultural college at Thiruvananthapuram and a veterinary college at Thrissur. (Jaleel, 1997) These formed the nucleus of the university together with agricultural research stations in different parts of the state, with liberal support from the State Government and Indian Council of Agricultural Research (ICAR), the agricultural university made rapid progress and is known as one of the best in India.

The 'Mahathma Gandhi University' was established in 1983. Apart from routine courses, the university embarked on a number of vocational and semi-professional courses such as Para medical courses, bio-technology, nursing and so on. In the nineties, two more universities

were started – the ‘Sree Sankara Sanskrit University’ at Kalady, and the ‘Kannur University’ with headquarters at Kannur.

The Indian Institute of Management (IIM) Kozhikode is one of the 19 Indian Institutes of Management set up by the Government of India. The Institute, founded in 1996 in collaboration with the State Government of Kerala, was the 5th IIM to be established. Recently in 2015, the Indian Institute of Technology (IIT) started functioning in Palakkad district.

One of the most important factors that governed the process of expansion of higher education during the 20th century was the pressure exerted on the state government by the dominant communities viz., Nairs, Ezhavas, and Christians, for getting colleges sanctioned to them. The development of higher education in Kerala has not followed any objective criterion or well-thought out policy. In view of the mounting demand for college admissions and the impossible task of satisfying it even after introducing the shift system, the government introduces the system of private registration for appearance in university examinations in arts, commerce, and mathematics. This measure helped the government to tide over the impasse, but gave birth to the system of parallel colleges in the organized private sector.

In pursuance of the decision of Kerala government to shift the pre-degree course to the school stage, the *Department of Higher Secondary Education* was formed in 1990. The dropping of this stage from the college sector has caused a steep decline in the revenue of colleges and universities. Thus, while the Private Registration Act added more students to the university system, *the transfer of pre-degree to the higher secondary system* drastically reduced the number of students enrolled with the universities. The fact that these interventions did not contribute to quantitative and qualitative improvements in higher education sector in the state has been pointed out by a number of studies and reports, including the *Education Commission* report of 1992 chaired by Dr. Ashok Mitra.

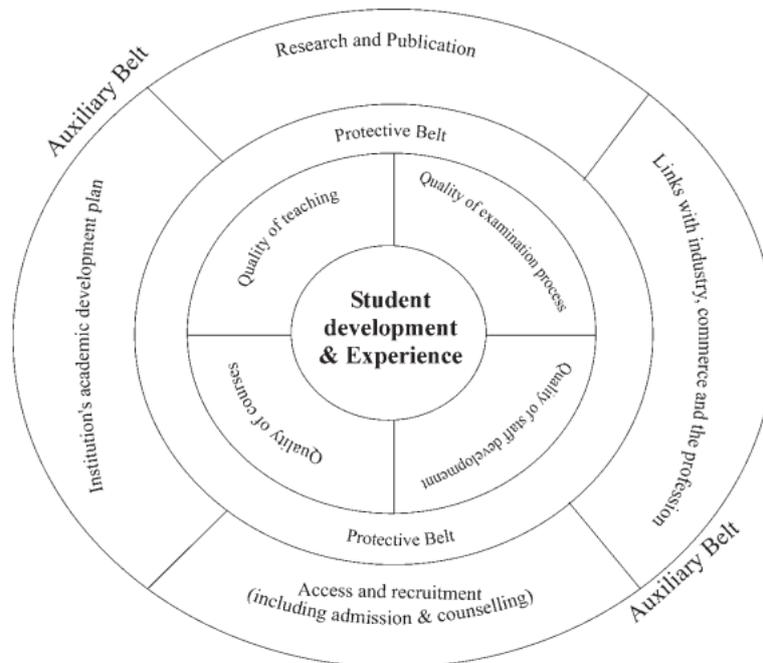
Quality of Higher Education

One of the contemporary thinkers of higher education and total quality management, Ronald Barnett (1992) says “Quality in higher education demands the establishment of an institutional culture, not so much a matter of total quality management but rather one of total quality care, in which each professional is seized of his or her responsibilities and takes care over all his or her own professional efforts” (p. 133). According to him, quality should be seen as a process of critical dialogue within an institution, where course teams accept ownership and facilitate student engagement towards learning and development, and there is a self-critical culture of continuous care for the students’ quality course experience.

Barnett suggested that there are four core activities that take care of quality in higher education: (1) teaching and learning; (2) student assessment; (3) staff development; and (4) curriculum/ courses. These form a ‘*protective belt*’ to the overall student development and experience that is central to quality higher education. The ideas of Barnett are depicted in Fig

1. Beyond this, the activities within ‘auxiliary belt’ are important but have less direct bearing on the quality of student experiences. These are research and publication, institution policy towards access and recruitment, institution’s academic development plans, and link with industry, business and the professional community. Within this framework, quality in higher education institutions can be seen both in qualitative and quantitative terms. (Mishra, 2006)

Fig 1: Barnett’s Quality Framework



Ronald Dore in his seminal work on the “*diploma disease*” first diagnosed the disturbing trend of education getting reduced to a “ritualised process of qualification earning.” (Dore, 1976)

Diploma Disease Syndrome:

Dore’s diploma disease arguments formed the most powerful social/institutional critique of human capital generation in developing countries.(Little, 2003)

“The simple economic argument goes like this: Educate one child and he or she becomes a hundred dollars more productive a year. Educate a million children and they become a hundred million dollars more productive ... If only it were so simple. You see, something happens on the way. To educate a million you have to create systems and institutions. You need to grade and certify, arrange exams and diplomas—and that’s where the problem arises, because the business of grading, certifying and awarding diplomas can overshadow the business of educating. The examination tail comes to wag the educational dog”. (Little, 2003)

As we reckon, the diploma disease manifests itself in strong faculty-wise segregation in India. We remain concerned about its social sciences mutations, particularly where the

disease combines with learning deficits. *The social sciences are not only witnessing an escalation/inflation of qualifications, a typical symptom of the diploma disease, but also, worryingly, qualifications being acquired at very low thresholds of quality, undermining both the degree and the person acquiring it.*(Kalyan Shankar, 2015)

In later years, the disease has come to be used synonymously with the “*paper qualification syndrome*” (Riedmiller, 1997) where individuals are continuously climbing a spiral of qualifications/degrees. But as Dore clarifies, the disease is not about individuals becoming mindless paper-chasers. It is a systemically induced or compelled phenomenon, affecting societies rather than individuals. Dore’s hypothesis has found resonance in several studies focusing on the ill effects of examination dominated education systems, particularly in developing countries.

As discussed in a World Bank report (World Bank, 2012), education can impart skills of three types—(a) academic skills that get directly measured through maths and literacy; (b) generic or life skills that generally include critical and creative thinking, behavioural and computing skills; and (c) technical skills directly associated with one’s profession. In a cumulative manner, it is posited that “primary education systems can provide basic academic and generic skills. Secondary education systems can provide more advanced academic and generic skills, as well as some technical skills. And tertiary education systems can provide all three types, of a higher order.” But with prior academic skills not in place, the further trajectories get warped. The supposed advanced skills may never be introduced. They may find mention in the curriculum but invariably be missing in classroom proceedings. More than learning, learning deficits become a continuous, cumulative feature within systems. There are “older deficits,” the deep-rooted ones in mathematics and language-based tasks such as reading and writing from schools. Fast forwarding, “newer deficits” strike root once specialisations emerge after Class X.

Moving into higher education, this segregation acquires a disciplinary/ faculty casing. Class X, the common-for-all examination, remains a key juncture leading to the disciplinary trifurcation of arts, science, and commerce. The “first boys” (Sen, 2005) or academic out-performers from schools typically vie for sciences, going on to pursue professional courses such as engineering and medicine. What of the “also-rans,” the poor performers, with scores of say 50% or less? They have a tendency to gravitate to arts or commerce, more so in the vernacular medium.

In certain cases, classrooms could be overwhelmingly dominated by low-scoring candidates. Thus, if learning deficits from schools are perpetuated in higher education, the social sciences remain one of the most likely avenues of doing so. The specifics of disciplinary segregation of students could vary across cities and state boards, but we expect the general trend to hold true.

There are concerns regarding lesser mathematical courses being taught in M.A. courses. As many students pursuing MA economics are from Commerce or Arts background, they are not

familiar with differentiation and integral calculus, so many derivations in Development and Macro Economics are skipped in the class (Kalyan Shankar, 2015).

Another problem noticed is the repetitive pattern of question paper in Savitribai Phule Pune University, as seen from table 6. Same questions are repeated in many exams, so students have a tendency to just solve previous years question papers and go for an exam. The questions lack intuitive thinking and in depth understanding of the subject.

Table 6: Repetition of Questions at Different Levels of Education

No	Questions	Subject/Course Title	Examination
1	Explain the causes of low productivity of Indian agriculture.	Agricultural Economics	FY BA (2011, 2012, 2013)
		Development and Environment Economics	TY BA (2012, 2013)
2	Explain progress of cooperative movement in Maharashtra.	Indian Economy	FY BA (2012, 2013)
		Banking and Cooperation in India	SY BA (2011, 2013)
3	Explain characteristics of Indian economy (as less developed economy). Explain characteristics (economic/demographic) of less developed countries.	Indian Economy	FY BA (2010, 2011, 2013)
		Development and Environment Economics	TY BA (2010, 2012, 2013)

Source: (What Does an MA Know? - Postgraduate Learning Deficits and the Diploma Disease in Social Sciences, 2015)³

Responding to one of the questions of a survey conducted among the students of M.A. Economics of Savitribai Phule Pune University, students knew that India’s GDP comprised the primary, secondary, and tertiary sectors. But they had not grasped that cumulatively, the sum would be 100%; in many answers, the sum went far beyond 100. (Kalyan Shankar, 2015) This could be a lack of economic understanding, but it was also an outcome of the way the topics are introduced in the classroom sans numbers.

Often the University prescribes books and study materials by renowned national and international authors, but many of them are not followed in the classrooms plus the library doesn’t have enough copies of them.

Globally, the interpretation of human capital is being narrowed down to capacities in STEM subjects—science, technology, engineering, and mathematics. This is already pushing social sciences to the periphery of human capital (a term ironically coined in economics, a non-

³EPW, 1st August 2015; pp 46

STEM subject). Going further, as pointed out in (Wang, 2013), “Intent to major in STEM is directly affected by 12th-grade math achievement, exposure to math and science courses, and math self-efficacy beliefs—all three subject to the influence of early achievement in and attitudes toward math”. For the ones with learning deficits, given their weak training in maths, entry into STEM remains tacitly blocked from school itself. Their only chance of higher qualifications is in the social sciences.

Concerns on the deteriorating status of the social sciences in India have been periodically voiced in research (Vaidyanathan, 2001)(ICSSR, 2007)(Guha, 2008).

There are several reports (Deshpande, 2002) on low competencies of candidates applying for teaching and research positions, even in the so-called elite social sciences institutions. These trends have to be traced to the entry-level dynamics affecting the pool of entrants in the social sciences.

Looking at the job prospects, while majority of the engineering graduates progress towards corporate jobs, Social Science graduates rely on government jobs and civil services. For them degree is a only an eligibility criteria, the main selection is determined by their performance in NET, SET, UPSC, Bank PO etc.

Indicators used to assess the Quality of Higher Education

The maintenance of quality along with expansion is a challenge that requires generous financial support, bold structural changes and robust regulatory mechanism in the system. Quality in higher education is determined by quality of Infrastructure (laboratories, library, amenities, ICTization of Class Rooms), curriculum, pedagogy, assessment and evaluation, relevance of programmes, interaction, etc. There are objective parameters which can be defined and quantified but there are some intangible parameters such as the location of the institutions, quality of feeder students, and ambience of the institutions, which influence the overall quality of education.

The objective parameters go on to form some of the prime and widely used indicators. Some of the objective parameters which need to be regulated and monitored for ensuing quality according to the Kerala State Higher Education Council are:

•Curriculum and Methods of Teaching & Evaluation

The curriculum be updated and made relevant to contemporary requirements. The curriculum deciding committee plays a very important role in the quality of teaching. Also, the ease with which there could be mobility of students between the institutions of the State as well as outside the State is dependent on the uniform adoption of *Choice Based Credit System* (CBCS) by all the Degree programmes. The CBCS System becomes fully effective only if a

common course code and content is adopted for the courses offered at undergraduate and postgraduate programmes across the State.

The ‘*Committee for Re-structuring Undergraduate Education*’ set up by the Higher Education Council in Kerala had made ambitious recommendations for restructuring undergraduate education in the State. The report of the committee recommended a radical reorientation of the decades-old degree system in the State, and the main focus is on the ‘credit-and-semester system’ rather than the annual system. Introduction of the interdisciplinary courses and multidisciplinary approaches to face issues at the academic front was also mentioned in the report. The report further recommended that the universities can consider offering integrated postgraduate programmes with an exit option – with a bachelor’s degree – after three years (KSHEC K. S., 2008).

•Number of Colleges

Kerala is ranked fourth among the states in terms of number of colleges per lakh population⁴.

There are a total of eight universities functioning in the state. Out of which four – University of Kerala, University of Calicut, Mahatma Gandhi University, and Kannur University – are general in nature and are offering various courses. Sree Sankaracharya University of Sanskrit, Cochin University of Science and Technology, and Kerala Agricultural University offer specialized courses in specified subject areas. And the eighth university is the recently announced ‘Central University’. There is also a Malayalam University.

There are 189 arts and science colleges in the state. Of this 39 are government colleges and 150 are private aided colleges. Ernakulam district has the largest number of arts and science colleges in the state followed by Kottayam district. Thiruvananthapuram district has the largest number of government colleges in the state. District-wise number of arts and science colleges in the state in 2008 is given in table 7.

Table 7: District-wise number of Arts and Science colleges in Kerala in 2008

⁴ ASHER 2015, 34 colleges per lakh population in case of Kerala, while the highest being Telangana with 54 colleges.

Sl.No	District	Government	Private Aided.	Total
1	Thiruvananthapuram	8	12	20
2	Kollam	1	12	13
3	Pthanamthitta	-	9	9
4	Alappuzha	-	12	12
5	Kottayam	1	21	22
6	Idukki	2	6	8
7	Ernakulam	4	21	25
8	Thrissur	3	17	20
9	Palakkad	4	9	13
10	Malappuram	3	8	11
11	Kozhikkode	6	8	14
12	Waynad	2	4	6
13	Kannur	2	9	11
14	Kasargod	3	2	5
	Total	39	150	189

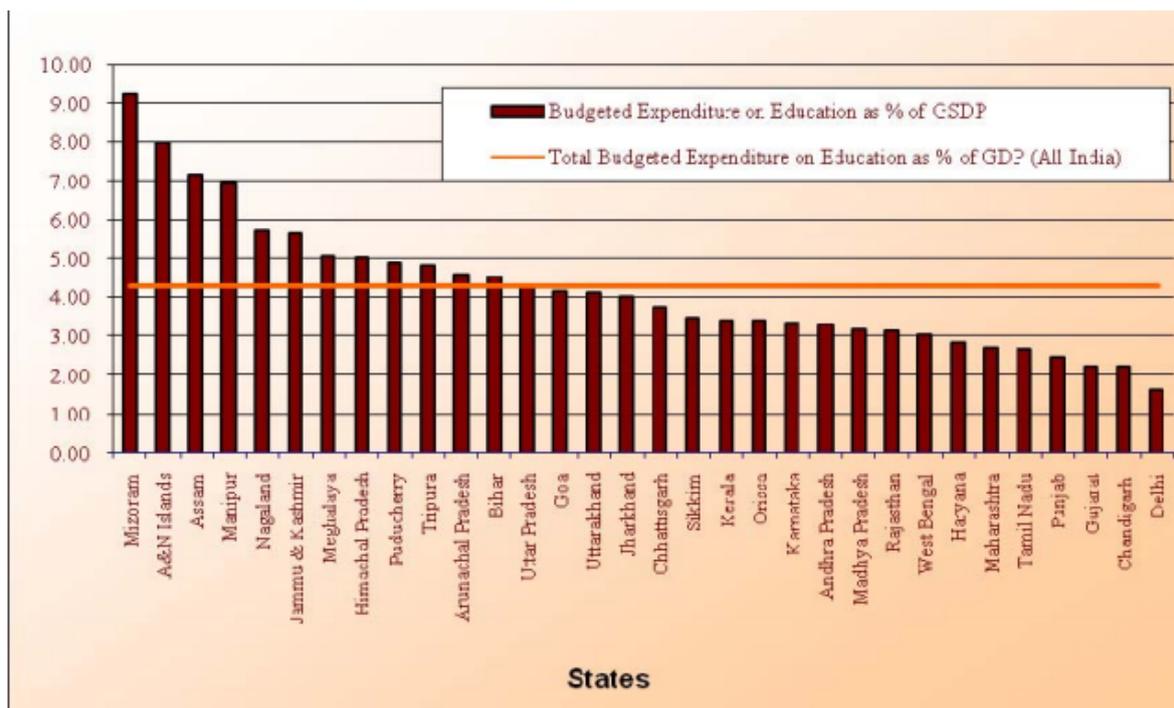
Source: Directorate of Collegiate Education, Thiruvananthapuram, December, 2008.

There is no assurance of the quality of higher education provided in these colleges.

- Percentage of Gross State Domestic Product (GSDP) spent on higher education

Figure 2 indicates the State-wise relationship between budgeted expenditure on education for all departments on Revenue Account in terms of the Gross State Domestic Product for the available years of various States and Union Territories for the purpose of comparative study. It is observed from the graph that the percentage of expenditure on education is below the National GDP in respect of the major states such as Delhi, Haryana, Gujarat, Punjab, West Bengal, Goa, Maharashtra, Andhra Pradesh, Odisha, Karnataka, Kerala, Tamil Nadu, Jharkhand, Rajasthan, Madhya Pradesh, Chandigarh, Uttarakhand, Sikkim and Puducherry.

Fig. 2: The percentage of total budgeted expenditure of States/UTs to their Gross State Domestic Product



Source: (MHRD, 2014)

The percentage of GSDP spent on higher education and research institutes is considered as an indicator for the quality of higher education in the Kerala Perspective Plan (KPP). Kerala spends 0.68% of GSDP⁵ on higher education, which by no means shows the quality of the research in any institute.

- Teacher – Student Ratio

The teacher student ratio approved by the UGC needs to be adhered to, which requires optimum teacher ratio for all disciplines. Postgraduate programmes: Sciences (1:10-12), Arts, Humanities, Social Sciences, Commerce (1: 15), Undergraduate Programmes: Sciences (1:20), other (1:25).

It may be the case that the student teacher ratio is very good, but the faculty are not motivated to teach or they are not competent enough to teach. Hence this is not a good indicator of the quality of education.

- Laboratory & Infrastructure

It is necessary to prescribe and strictly adhere to the minimum space / student ratio in class room, minimum laboratory space and minimum faculty and basic equipment to be acquired

⁵ ASHER 2015, pg 99

and provided in every college. Such minimum is not defined in most of the curriculum designed and most often, even simple microscopes and computers and experimental setup are shared by a group of students, which seriously hampers the quality of training.

In many institutions, lab training remains a ritual. There is a huge gap in the standards and quality of teaching between different colleges within the State and also outside.

• Use of ICT (Information and Communications Technology) & easy access to information through Network of Libraries

It is essential that the library resources of various universities of the state and the colleges are net-worked with online connectivity. Over eight such State-wise library networks exist in India, such as ADINET (Ahmedabad), CALIBNET (Kolkata), MALIBNET (Chennai), BONET (Bombay), etc. Modern teaching techniques need to be adopted for delivering better quality.

• Higher Enrolment

As shown in table 8 the Gross Enrolment rate in higher education in Kerala is higher than other states. But given the laurels it has earned for the achievements in primary education, it is expected to do better in higher education also.

Table 8: Gross Enrolment Rate for Graduates and above

Gross Enrolment Rate for Graduate and above-2004-05					
Low		Medium		Above	
State	Total	State	Total	State	Total
Arun Pradesh	3.7	Assam	8.77	Maharashtra	13.14
Meghalaya	4.57	Gujarat	9.83	J&K	13.26
Tripura	5.32	Karnataka	10	Haryana	13.7
Orissa	6.13	WB	10.34	Manipur	14.43
Bihar	6.15	Chhatisgarh	10.61	Goa	14.73
Sikkim	6.17	UP	10.78	Uttaranchal	16.49
Jharkhand	7.27	Total	10.84	HP	17.12
Rajasthan	7.3	AP	12.72	Pondicherry	17.39
MP	7.46	Tamilnadu	13.02	Kerala	18.46
Mizoram	7.87	Punjab	13.09	Nagaland	19.03

Based on NSS Data –Employment and Unemployment Survey -2004/5

Source: (UGC, 2008, p. 26)

Often higher enrolments are perceived as an indicator for quality of education. Enrolment is a quantitative value which generally is used to measure access rather than quality of education.

From table 9 we see that among the Arts courses Economics is the most preferred discipline. It can be justified by the higher enrolment in M.A. Economics.

Table 9: M.A. Degree enrolment in colleges in Kerala, 2008

**Enrolment of M.A. Students in Colleges in Kerala, 2008
(December 2008)**

Sl.No	Subjects	First Year			SecondYear		
		Boys	Girls	Total	Boys	Girls	Total
1	Economics	130	797	927	108	763	871
2	History	118	458	576	96	426	522
3	Sociology	38	26	64	21	18	39
4	Politics	42	253	295	38	228	266
5	Philosophy	38	61	99	27	32	59
6	Geography	43	32	75	36	18	54
7	Psychology	54	37	91	38	22	60
8	English	161	628	789	148	593	741
9	Malayalam	154	468	622	131	421	552
10	Hindi	148	201	349	136	193	329
11	Geology	35	28	63	29	15	44
12	Arabic	61	43	104	46	29	75
13	Sanskrit	42	48	90	38	41	79
14	Kannada	16	18	34	10	10	20
15	Islamic History	54	158	212	42	128	170
16	Tamil	19	18	37	10	10	20
Total		1153	3274	4427	954	2947	3901

Source: Directorate of Collegiate Education, Thiruvananthapuram, 2008.

• Autonomy of a college

There are colleges in Kerala which deserve autonomy and which can prove their full academic potential if only greater freedom is given to take risks with responsibility. Essentially, it is autonomy in respect of academic affairs as that is where quality matters. How should the curriculum be developed and the courses of study organized? How the examination system be improved to make it a true measure of learning? What extension activities and outreach programmes can enrich the curriculum while engaging the colleges with the communities where they are located? These and related measures may bring greater opportunities to teachers and staff of autonomous colleges.

To be able to do these and more on the academic front, colleges may need some degree of administrative autonomy. That is why the UGC Guidelines prescribe a new internal governance structure in place of the existing management. Each autonomous college will have its own Academic Council with four experts from outside the college nominated by the Governing Body and three nominees of the University. The Principal and all Heads of Departments of the college as well as four other teachers of the college are its members. Decisions of the College Academic Council need not be ratified by the University (KSHEC, 2013). Autonomy does not rest with the management or the Principals of the colleges. It percolates down to every department and to every teacher allowing space for innovation and creativity for the benefit of students at all levels. The college will have Board of Studies

attached to each Department to prepare syllabi, teaching methods, examination, research and related academic activities.

In principle, all colleges, Government, Government-aided, Unaided, Self-financing including professional colleges, are to be considered eligible for seeking autonomy provided:

- a) They must have been functioning for a substantial period of time, say minimum of 10 years, with good academic and administrative performance record to be able to deserve autonomy under the scheme.
- b) The college must have been accredited by NAAC or other competent agencies at least once and must have received nothing less than 'A' Grade accreditation.
- c) The adequacy of staff (Teacher-Student ratio) and the educational qualifications and experience of teachers are met. To have 1/3rd of faculty with research qualifications (M.Phil., Ph.D.) is a desirable requirement in this regard.
- d) Colleges seeking autonomy should have teaching programmes both in under-graduate and post-graduate courses.

In order to select the colleges at the State level, the State may constitute an Expert Committee (Autonomy Approval Committee) under the Chairmanship of the Minister for Education and the Vice-Chairman of KSHEC as Vice-Chairman of the Committee with representation from the affiliating university, the KSHEC and the Government. The committee can select the colleges which are deemed to be autonomous, but the final decision whether to accept or not lies with the colleges.

NAAC

The *National Assessment and Accreditation Council (NAAC)* is an autonomous body established by the University Grants Commission (UGC) of India to assess and accredit institutions of higher education in the country. It is an outcome of the recommendations of the National Policy in Education (1986) which laid special emphasis on upholding the quality of higher education in India. To address the issues of quality, the National Policy on Education (1986) and the Plan of Action (POA-1992) advocated the establishment of an independent national accreditation body. Consequently, the NAAC was established in 1994 with its headquarters at Bangalore.

The National Assessment & Accreditation Council (NAAC) stresses on making quality assurance, an integral part of the functioning of higher education institution. In order to translate the NAAC's vision into reality, the following **key tasks are undertaken by the organization**⁶:

- To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programme or projects.

⁶<http://www.indiaeducation.net/apexbodies/naac/>

- To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions.
- To encourage self-evaluation, accountability, autonomy and innovations in higher education.
- To undertake quality-related research studies, consultancy and training programme.
- To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.

NAAC assessment is beneficial as it:

1. Helps the institutions to know strengths, weaknesses, opportunities through an informed review.
2. Identifies internal areas of planning and resource allocations.
3. The outcome of the assessment process provides the funding agencies with objectives and systematic database for performance funding.
4. Initiates institution into innovative and modern methods of pedagogy.
5. Provides the society with reliable information on the quality of education offered by the institution.
6. Employers have access to information on standards in recruitment.
7. Promotes intra-institutional and inter-institutional interactions.

Institutions that wish to be assessed have to record their intention, in a formal letter called Letter of Intention (LOI) and provide general information about the institution to the NAAC. On receiving the letter, the NAAC checks the eligibility of the institution. The Executive Committee (EC) of the NAAC has resolved as under regarding the eligibility criteria:

The Universities and colleges of Higher Education Institutions (HEIs) are eligible to apply for the process of Assessment and Accreditation (A&A) of NAAC, if they have a record of atleast two batches of students graduated or been in existence for six years, whichever is earlier⁷ (w.e.f. 1st November 2013), provided they meet certain other conditions which are as follows:

a) **Universities (Central/State/Private/Deemed-to-be) and Institutions of National Importance** shall be considered for the Assessment and Accreditation process, if the duly established campuses are within the country. NAAC will not undertake the accreditation of off-shore campuses.

b) **Colleges** affiliated to, or constituent of, or recognized by universities, including autonomous colleges and the colleges/institutions offering programmes recognized by Statutory Professional Regulatory Councils which are equivalent to a degree programme of a university shall also be eligible for Assessment and Accreditation even if such colleges/institutions are not affiliated to a university.

⁷http://www.naac.gov.in/Eligibility_HEI.asp

The Assessment and Accreditation process has three stages.

Stage I: The Preparation of the Self-study Report:

Institutions that fulfill the eligibility criteria are given the guidelines to prepare the self-study report (SSR) to be submitted for assessment. The NAAC believes that an institution that really understands itself - its strengths and weaknesses, its potentials and limitations - is likely to be more successful in carrying out its educational mission.

Stage II: The Visit to the Institution:

On receiving the SSR from the institution, the NAAC constitutes the team of peers, who visit the institution to validate the SSR, through interactions with the constituents, checking documents and visiting the various units of the institution. At the end of the visit, the team shares the draft assessment report with the institution and the copy of the report with the acceptance of the head of the institution is submitted to the NAAC. The team also gives confidential scores that decide the institutional grade.

Stage III: The Final Decision of the NAAC:

The Executive Committee of the NAAC reviews the report and takes a decision about the grade of the institution. The grade is valid for a period of five years. Accreditation by the NAAC is voluntary and during the first phase of assessment, the NAAC has taken up accreditation of institutions.

Criteria for Assessment:

NAAC has identified seven criteria and several key aspects to serve as the basis of its assessment procedures as mentioned in table 10. The weightages given are different in case of Universities, autonomous colleges and affiliated colleges.

Table 10: Criteria and key aspects considered by NAAC for grading

Criteria	Key Aspects	Universities	Autonomous Colleges	Affiliated Colleges
I. Curricular Aspects	1.1 Curriculum Design and Development	50	50	--
	Curricular Planning and 1.1 Implementation	--	--	20
	1.2 Academic Flexibility	50	50	30
	1.3 Curriculum Enrichment	30	30	30
	1.4 Feedback System	20	20	20

	Total	150	150	100
II. Teaching-Learning and Evaluation	2.1 Student Enrolment and Profile	10	30	30
	2.2 Catering to Student Diversity	20	40	50
	2.3 Teaching-Learning Process	50	100	100
	2.4 Teacher Quality	50	60	80
	2.5 Evaluation Process and Reforms	40	30	50
	2.6 Student Performance and Learning Outcomes	30	40	40
	Total	200	300	350
III. Research, Consultancy and Extension	3.1 Promotion of Research	20	20	20
	3.2 Resource Mobilization for Research	20	20	10
	3.3 Research Facilities	30	20	10
	3.4 Research Publications and Awards	100	20	20
	3.5 Consultancy	20	10	10
	3.6 Social Responsibility Extension Activities and Institutional	40	50	60
	3.7 Collaborations	20	10	20
	Total	250	150	150
IV. Infrastructure And Learning Resources	4.1 Physical Facilities	30	30	30
	4.2 Library as a Learning Resource	20	20	20
	4.3 IT Infrastructure	30	30	30
	4.4 Maintenance of Campus Facilities	20	20	20

	Total	100	100	100
V. Student	5.1 Student Mentoring and Support	40	40	50
Support and Progression	5.2 Student Progression	40	40	30
	5.3 Student Participation and Activities	20	20	20
	Total	100	100	100
VI. Governance, Leadership and Management	6.1 Institutional Vision and Leadership	10	10	10
	6.2 Strategy Development and Deployment	10	10	10
	6.3 Faculty Empowerment Strategies	30	30	30
	6.4 Financial Management and Resource Mobilization	20	20	20
	6.5 Internal Quality Assurance System	30	30	30
	Total	100	100	100
VII. Innovations and Best Practices	7.1 Environment Consciousness	30	30	30
	7.2 Innovations	30	30	30
	7.3 Best Practices	40	40	40
	Total	100	100	100
TOTAL		1000	1000	1000

Source⁸: NAAC website

It is evident from the table that in all the three Higher Education Institutions (HEIs) *Teaching-learning and Evaluation and Research, Consultancy and Extension* have more *weightage*. This study also focuses to capture these aspects by assessing the teacher quality and research publications.

There are two outcomes of Assessment and Accreditation:

1. Peer Team Report - The qualitative part of the outcome is called Peer Team Report (PTR) which is an objective report prepared by the Team highlighting its evaluative judgements.

⁸http://www.naac.gov.in/docs/WEIGHTAGES_0.pdf

2. **Institutional Grading** - The quantitative part of the outcome comprises the criterion-wise quality assessment, resulting in the final Cumulative Grade Point Average (CGPA), a letter grade and a performance descriptor. Thus, at the end of A&A process, each applicant institution will be awarded with a Letter Grade to represent its quality level along with its Performance Descriptor and Accreditation Status, based on the CGPA earned by it through the assessment process, as mentioned in table 11:

Table 11: Performance Descriptor and Accreditation Status

Range of institutional Cumulative Grade Point Average (CGPA)	Letter Grade	Performance Descriptor
3.01 - 4.00	A	Very Good (Accredited)
2.01 - 3.00	B	Good (Accredited)
1.51 - 2.00	C	Satisfactory (Accredited)
≤ 1.50	D	Unsatisfactory (Not accredited)

Source⁹: NAAC website

Institutions which secure a CGPA less than or equal to 1.50 will be intimated and notified by the NAAC as “assessed and found not qualified for accreditation”.

The decision taken by the Executive Committee (EC) is deemed to be final. However institutions, which like to make an improvement in the accredited status, may volunteer for Re-assessment, after completing at least one year but not after the completion of three years. The procedure followed is the same at the time of first accreditation. However, the institution shall make specific responses based on the recommendations made by the peer team in the first assessment and accreditation report, as well as the specific quality improvements made by the institution. The fee structure would be the same as that for Assessment and Accreditation, which in case of universities with less than 10 departments is Rs. 3,00,000 and colleges with multi faculties is Rs. 1,50,000.

Since quality assurance is a continuous process, the NAAC takes up many post accreditation activities to facilitate quality promotion and sustenance among all institutions of higher education, in general, and among the accredited institutions, in particular. Seminars and workshops on quality enhancement are being supported by the NAAC. To ensure that quality assurance becomes an integral part of the functioning of the institutions, the NAAC promotes the establishment of Internal Quality Assurance Cells (IQAC) in accredited institutions. The main task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the performance of institutions.

⁹http://www.naac.gov.in/assessment_outcome.asp

Critic of the NAAC grading system:

- i) Although there is a provision and a separate process to assess and accredit the departments of an institution¹⁰ but it is not always mentioned. The NAAC grade is always for the college or the institute as a whole. So there can be some cases where the institute has a good grade due to some good departments where-as quality of some departments can be poor.
- ii) Once NAAC awards a score, it is valid for a period of five years. Despite the various post accreditation activities to enhance and sustain the quality of higher education, there might be cases where the institutions are unable to maintain their grade. There may be circumstances where many of the experienced and qualified teachers switch institutes or retire resulting in a lower quality of education. In such a condition the college or institute cannot be degraded immediately. Thus NAAC status may not depict the present quality of the institution.
- iii) The country has been lagging behind in both these crucial elements of quality assurance. Accreditation of an institution and ranking of an institution at State level and Country level is very essential for all the stakeholders, namely students, parents and employers. Unfortunately, the country does not have a ranking mechanism and even the accreditation agency NAAC did not come up to its expectations. For the past fifteen years it has hardly accredited 5% of universities and 15% of colleges and even that has questionable grading pattern (KSHEC, Report on Kerala State Higher Education Policy, 2012). Both discipline-wise accreditation as well as Ranking Mechanism is absolutely essential, in the present context.

The State may introduce State accreditation system, separately for general colleges, Management colleges, Engineering colleges, College of Education and other Professional colleges. Even in the universities, the accreditation should be not university-wise but discipline-wise like the Schools of Life Sciences, Physical Sciences, Chemical Sciences, Mathematical Sciences, Computer Sciences, etc. An institutional accreditation without, discipline-wise accreditation and ranking, does not serve much purpose. For instances, *a 'A' grade University may have several discipline who have been poor performers and may not even have students. Grading and Ranking are two different parameters and not to be confused. NAAC does grading and not ranking.* Country has failed to bring in a comprehensive ranking mechanism.

These are very good indicators for quantitative comparison but might not indicate the quality of education going on in an institution. Hence, in this study we use teachers' quality and their research publications to assess the quality of higher education, which we believe is the most important factor determining the quality of higher education.

¹⁰<http://uphed.up.nic.in/NAAC-N.pdf>

There is an age old saying, ‘Yatha Raja ThadhaPraja’ the quality of faculty resembles in students. (Rajini, 2009)

1. Quality & Qualification of teachers

Quality of teaching is not only dependent on the infrastructure and facilities but equally on the quality and commitment of teachers. While the entry into teaching has to be through rigorous process of selection, their sustenance as good teachers require continuous monitoring as well as support to teachers. Attractive service conditions, depositions to conferences, training through short refresher course, summer and winter training programmes in lead institutions, encouragement to improve qualifications should be the policy. At the same time, strict adherence to Annual Performance Index (API), Self-Appraisal of teachers, and Teacher Assessment by students should be the important criteria for promotions to higher grades.

Qualified teachers can be good guides to the students. The Kerala Perspective Plan 2030 (KPP) suggests a shift from ‘teaching mode’ to ‘learning mode’ where faculties should act as facilitator only. For this the teachers have to be well versed with the career options outside and train students in innovative ways. The teachers should constantly update their lecture notes as per the happenings relevant in today’s world.

2. Research Facilities

Research publications are important because, these show the commitment of the faculty to research in their specialised field. It is considered good if a faculty has publications in established national or international journals, as then they can be good guides for their research students. These research works can be of use to the society in general.

Research output is pitifully low in India even though the country has the second largest higher educational system in the world. Our research output, by way of publication in referred journals, is three per cent while the contribution of our immediate neighbour China on this count is 15 per cent. (Rajini, 2009), pp. 182.

While research in Arts, Humanities and Social Sciences require a strong library information support, field trainings, exclusive software and field project support, research in Science subjects requires state-of-the-art Research laboratories and analytical facilities which provide data comparable and publishable in refereed and international Journals. Right facilities and good ambience and academic freedom are the main motivational forces that drive young teachers to write papers and spend time on research. The UGC is planning to fund establishment of Regional Sophisticated Instrumentation facility in select zones during XII Plan and Kerala State can bid for establishment of such a centre with part contribution from the Government and part from UGC(KSHEC, Report on Kerala State Higher Education Policy, 2012). Establishment of such a centre would drastically enhance the research potential of universities and colleges and improve the quality of publications.

Methodology

In this report we try to analyse the quality of higher education and we believe one of the primary indicators of quality of education is the quality of teaching in any college, which is directly dependent on the teachers' quality. Teachers' quality is best assessed by their qualification and publications in various national and international journals.

This study is mainly based on secondary data.

1. For quality of faculty

In Kerala there are 91 colleges that provide Masters in Economics (M.A. Economics).¹¹The information is available for 66 colleges out of 91, so the analysis is based on those 66 colleges only.

Table 12: Total Number of Colleges which provide M.A. Economics and number of colleges Considered for this study

District	Total Number of colleges	Number of Colleges considered based on Information available
Kasargod	5	3
Kozhikode	6	5
Kannur	4	2
Idukki	3	1
Pathanamthitta	4	2
Kollam	3	3
Trivandrum	12	5
Ernakulam	11	10
Kottayam	11	9
Wayanad	2	1
Malappuram	5	5
Alappuzha	5	4
Thrissur	14	12
Pallakad	6	4
Total	91	66

Source: Constructed by the researcher

¹¹<http://www.htcampus.com/subcategory/economics-colleges-in-kerala-state/>

<http://www.e-grantz.kerala.gov.in/ViewInstitution.aspx?courseid=15&coursename=M.A.%20Economics>

The colleges are noted district wise. The official websites of all the colleges are visited to gather the available faculty information, which included name of the faculty, qualification of the faculty and Research Publication if mentioned. All the colleges where the information was not available online are contacted on email asking for information.

Others details like NAAC grade, the university to which the college is affiliated to, whether the colleges is autonomous or not was also entered for each college.

Teachers' qualification is entered as M.A., M.Phil, Ph.D. and others (post graduate degrees). For computation of a score based on faculty quality, weights (total of 50) are assigned to their qualification, shown in table 13.

Table 13: The weights assigned to qualification

Qualification	Weightage
M.A.	10
M.Phil	15
Ph.D.	20
Others	05
Total	50

The total marks obtained (out of 50) by the teachers of a college, are summed and then taken an average to get an overall score for that college. This average out of 50 is converted out of 4 by unitary method. Similarly scores (out of 4) are calculated for all the colleges.

The scores are obtained out of 4.00, in order to make it comparable with the NAAC score of the colleges. The NAAC scores¹² are obtained from the NAAC website www.naac.gov.in.

Here we wish to see whether the faculty quality is a significant parameter in deciding the NAAC grade of the institution.

2. For publications

Publications also reflect the faculty quality to an extent. It shows whether they are constantly updated in their specialised field. As many faculties have publications in a variety of local college journals, conference proceedings, national or international journals with different impact factor, so to control the diversity we consider one of the most popular and most read journals in India – the *Economic and Political Weekly (EPW)*.

All the faculty names recovered from all the college websites are searched in the EPW website for publications from 1966 to June 2016.

¹²Data, as on 10th December 2014

Analysis and Findings

1. Faculty Qualification

Table 14: Number of Faculty with M.Phil and Ph.D.

District	Total Number of Faculties	M.A./M.Sc	M.Phil	Ph.D
Kasaragod	16	16	8	10
Kozhikode	26	26	10	6
Kannur	12	12	5	4
Idukki	6	6	1	1
Pathanamthitta	15	15	8	2
Kollam	21	21	5	4
Trivandrum	47	47	17	32
Ernakulam	60	60	22	27
Kottayam	62	62	26	15
Wayanad	3	3	1	1
Malappuram	27	27	14	10
Alappuzha	25	25	11	5
Thrissur	73	73	21	29
Pallakad	24	24	6	8
Total	417	417	155	154

Source: Constructed by the researcher

Analysis:

Table 14 shows the number of faculties district wise and how many have M.Phil and Ph.D. From the data we can say that *approximately 40% of the faculties have Ph.D*, which is a pretty good number.

Out of the total 417 faculty members, only 72 have NET, which is about just 17% of the total number.

2. Correlation

Hypothesis 1:

H₀: No correlation between the score calculated on the basis of teacher quality and the score given by NAAC

H₁: There is a correlation between the score calculated on the basis of teacher quality and the score given by NAAC

Testing:

A correlation is found out between the score calculated on the basis of teacher quality and the score given by NAAC using Ms Excel. Since Ms excel cannot show the p value for correlation, we conducted a regression analysis. As we have two variables in our analysis, so the correlation coefficient in table 15 and the Multiple R in table 16 are the same. The test is conducted at *95% confidence interval*.

Findings:

Table 15: Correlation matrix

	NAAC Score	Out of 4
NAAC Score	1	
Out of 4	-0.18263	1

Table 16: Regression Table

Regression Statistics	
Multiple R	0.18262522
R Square	0.03335197
Adjusted R Square	0.01824809
Standard Error	1.23291278
Observations	66

ANOVA

	df	SS	MS	F	Significance F
Regression	1	3.356586113	3.35658611	2.208172958	0.142190901
Residual	64	97.28473055	1.52007391		
Total	65	100.6413167			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	3.23601459	0.491289461	6.58677795	9.82207E-09	2.254551065	4.217478	2.254551	4.217478
Out of 4	-0.3640866	0.24501244	-1.4859922	0.142190901	0.853555202	0.125382	-0.85356	0.125382

Analysis:

We get a weak negative correlation of 0.182, which implies that colleges with better faculty qualification have lower NAAC scores and vice versa. It means faculty qualification does not represent the overall NAAC score. The overall NAAC scores of the institution do not seem to be in line with the faculty qualification of the Economics department. The negative correlation is insignificant, when we consider the p value.

The *p value* is $0.142 > 0.05$, so we *accept the Null Hypothesis*. Hence we can conclude that there is *no significant correlation* between the teacher qualification and NAAC grading. This can be explained by the following two points.

- i. As mentioned earlier in the NAAC section of this report, that out the seven criteria considered while grading any institute, we have considered teaching and learning evaluation only.
- ii. NAAC grade is given for the whole institute and not individual department. So may be the quality of faculty in the Economics department does not represent the quality of the faculty in the institute as a whole.

3. Mean difference test

Hypothesis 2:

H_0 : There is no difference between the score calculated on the basis of teacher quality and the score given by NAAC

H_1 : There is difference between the score calculated on the basis of teacher quality and the score given by NAAC

Testing:

This test is to check whether there is any significant difference between the score calculated on the basis of teacher quality and the NAAC score over all the colleges. The Null hypothesis considers that there is no significant difference between the two; *hence the hypothesised mean difference is zero*. The findings are shown in table 17.

Findings:

Table 17: t-Test: Paired Two Sample for Means

	NAAC Score	Out of 4
Mean	2.541666667	1.9070956
Variance	1.548327949	0.3895606
Observations	66	66
	-	-
Pearson Correlation	0.182625216	
Hypothesized Mean Difference	0	
Df	65	
t Stat	3.458785127	
P(T<=t) one-tail	0.000481302	
t Critical one-tail	1.668635976	
P(T<=t) two-tail	0.000962604	
t Critical two-tail	1.997137908	

Analysis:

As the t stat (3.458785127) is greater than t critical two tail (1.997137908), so we *reject the Null*. This means that there is a *significant difference between the scores calculated by us and the NAAC scores*.

By the p value test, we see $0.000962604 < 0.05$, hence the test is *significant*.

This difference is justified as we have considered teaching and learning evaluation only as our grading criteria, while there are a lot of other aspects considered by NAAC while grading the institution.

Here we can conclude that as far as the economics department is concerned the NAAC grade is not a good indicator of quality.

EPW Publication

The Economic and Political Weekly, published from Mumbai, is an Indian institution which enjoys a global reputation for excellence in independent scholarship and critical inquiry.

First published in 1949 as the Economic Weekly and since 1966 as the Economic and Political Weekly, EPW, as the journal is popularly known, occupies a special place in the intellectual history of independent India. For more than five decades EPW has remained a unique forum that week after week has brought together academics, researchers, policy makers, independent thinkers, members of non-governmental organisations and political

activists for debates straddling economics, politics, sociology, culture, the environment and numerous other disciplines.¹³

The intention behind looking at the EPW publications is that we wanted to check how many faculty members of the Economics Department in Kerala have published in EPW. Given the wide acceptance and popularity of this weekly journal we have searched for Publications by the faculty. The following are the results:

1. Dr. Nirmala Padmanabhan of St. Teresas College, Ernakulam
 - a) Understanding Gender Equality in the Software Industry of Kerala through the Capability Approach - Vol. 46, Issue No. 12, 19 Mar, 2011
 - b) Poor Performance of Private Corporate Sector-in Kerala - Vol. 25, Issue No. 37, 15 Sep, 1990

2. Dr. George Mathew of Marthoma College, Thiruvalla, Pathanamthitta
 - a) Panchayati Raj Institutions and Human Rights in India - Vol. 38, Issue No. 02, 11 Jan, 2003
 - b) Social Background of Kerala District Council Members - Vol. 26, Issue No. 21, 25 May, 1991

3. Manmohan Agarwal, Centre for Development Studies (CDS), Thiruvananthapuram
 - a) East Asian Economies: A Sober View - Vol. 37, Issue No. 28, 13 Jul, 2002
 - b) For Open Economics and Democratic Politics - Vol. 35, Issue No. 26, 24 Jun, 2000
 - c) Structural Adjustment in Latin America - Vol. 34, Issue No. 44, 30 Oct, 1999
 - d) Trade in Services and TNCs - Vol. 28, Issue No. 43, 23 Oct, 1993

4. Upasak Das, Centre for Development Studies (CDS), Thiruvananthapuram

¹³<http://www.epw.in/about-us.html>

- a) Ashwini Kulkarni, Krushna Ranaware, Sudha Narayanan and Upasak Das: MGNREGA Works and Their Impacts - Vol. 50, Issue No. 13, 28 Mar, 2015
 - b) Sudha Narayanan and Upasak Das: Women Participation and Rationing in the Employment Guarantee Scheme - Vol. 49, Issue No. 46, 15 Nov, 2014
5. Vijayamohan Pillai, Centre for Development Studies (CDS), Thiruvananthapuram
- a) K P Kannan and Vijayamohan Pillai: Plight of Power Sector in India I - Vol. 36, Issue No. 02, 13 Jan, 2001
 - b) K P Kannan and Vijayamohan Pillai: Plight of Power Sector in India II - Vol. 36, Issue No. 03, 20 Jan, 2001
6. Dr.Anitha V. of School of Distance Education, Thiruvananthapuram
- a) A S Binilkumar, P K Muraleedharan and V Anitha: Human-Related Constraints in Protected Area Management - Vol. 41, Issue No. 10, 11 Mar, 2006
 - b) Non-Timber Forest Products - Vol. 47, Issue No. 52, 29 Dec, 2012
7. Joby Joseph of Govt. College, Kottayam
- a) Joby Joseph and Tharian George K: Value Addition or Value Acquisition? - Vol. 40, Issue No. 26, 25 Jun, 2005
 - b) Toms Joseph, Joby Joseph and Tharian George K: Rubber and Rubber Products - Vol. 49, Issue No. 1, 04 Jan, 2014
 - c) Joby Joseph and Tharian George K: Revealed Comparative Advantage and Decomposition of Export Growth - Vol. 50, Issue No. 42, 17 Oct, 2015
8. Prof. Thomas Mathew of PMG College, Chalakudy, Thrissur
- a) Labour History- Promise of Revival - Vol. 33, Issue No. 32, 08 Aug, 1998
 - b) Ambedkar and Marxism - Vol. 27, Issue No. 24-25, 13 Jun, 1992

9. K J Joseph of Centre for Development Studies (CDS), Thiruvananthapuram
 - a) D Narayana and K J Joseph: Industry and Trade Liberalisation-Performance of Motor Vehicles and Electronics Industries, 1981-91 - Vol. 28, Issue No. 8-9, 20 Feb, 1993
 - b) K J Joseph and Govindan Parayil: Can Trade Liberalisation Bridge the Digital Divide? Assessing the Information Technology Agreement - Vol. 43, Issue No. 01, 05 Jan, 2008
 - c) K J Joseph and Robert E Evenson: Foreign Technology Licensing in Indian Industry - Vol. 34, Issue No. 27, 03 Jul, 1999
 - d) Growth Performance of Indian Electronics under Liberalisation - Vol. 24, Issue No. 33, 19 Aug, 1989
 - e) K J Joseph and K K Subrahmanian: Electronics in Kerala's Industrialisation - Vol. 23, Issue No. 24, 11 Jun, 1988

10. K N Harilal of Centre for Development Studies (CDS), Thiruvananthapuram
 - a) Confronting Bureaucratic Capture - Vol. 48, Issue No. 36, 07 Sep, 2013
 - b) K N Harilal and K J Joseph: Stagnation and Revival of Kerala Economy - Vol. 38, Issue No. 23, 07 Jun, 2003
 - c) K N Harilal and K J Joseph: Structure and Growth of India's IT Exports - Vol. 36, Issue No. 34, 25 Aug, 2001
 - d) India-Sri Lanka Free Trade Accord - Vol. 34, Issue No. 13, 27 Mar, 1999
 - e) K N Harilal and T M Thomas Isaac: Planning for Empowerment-People's Campaign for Decentralised Planning in Kerala - Vol. 32, Issue No. 1-2, 04 Jan, 1997
 - f) Deskilling and Wage Differentials in Construction Industry - Vol. 24, Issue No. 24, 17 Jun, 1989

11. P L Beena of Centre for Development Studies (CDS), Thiruvananthapuram
 - a) Trends and Perspectives on Corporate Mergers in Contemporary India - Vol. 43, Issue No. 39, 27 Sep, 2008

- b) P L Beena and K N Harilal: Reining in Rules of Origin-Based Protectionism - Vol. 40, Issue No. 51, 17 Dec, 2005

12. Radhika Krishnan of NSS College, Ottapalam, Palakkad

- a) Kuntala Lahiri-Dutt, Nesar Ahmad and Radhika Krishnan: Land Acquisition and Dispossession - Vol. 47, Issue No. 06, 11 Feb, 2012

Analysis:

We can conclude that out of 417 faculty members, only 12 have publications in EPW journals since 1966 to June 2016, which shows a very bad state of the research culture among the M.A. Economics Department.

Of these 12 faculty members, six are from CDS (50%), which is regarded as a research centre. So effectively only six faculty members have publications, across all Economics departments, in Kerala.

Conclusion and Recommendation

Among the several states in India, Kerala occupies an enviable position in terms of several indicators of social and human development. In fact, in terms of human development, Kerala ranks fairly well in comparison with some of the advanced countries of the world. It stands as the most literate state and as a state that provides elementary education to all the eligible children. Kerala's education performance has been so impressive that it could receive the distinctive acclamation as the 'Kerala model'; and some recommend *Keralization* of the whole education system in India (Lewis, 1997).

While many important lessons can be drawn from the valuable education experience of Kerala, a few uncomfortable lessons also flow from the same Kerala experience: (a) the immense historical advantage Kerala enjoyed, in terms of massive historical investments in education, might mean for the other societies that do not have such historical advantages, and have lately realized the importance of education and began investing in education only recently, that they cannot become literate societies and they cannot achieve goals of providing universal basic education in the near future; (b) as Kerala concentrated rather exclusively on primary and secondary levels of education and ignored higher education, it might suggest that universalisation of elementary education is possible only if higher education is ignored (Tilak, 2001).

But now since Kerala has already achieved universalisation of primary education, it is felt need to perform better in higher education. Kerala has performed well in the higher education

as well to an extent, atleast better than a lot of other states. But the need of the hour is to improve the quality of higher education, which is somewhere compromised with the increasing demands of the society for higher education.

Talking about quality leads us to the question as to which indicators truly depict quality. The answer to which is there are several indicators, out of which we feel that teachers' quality of the most important factor. This study assessed teachers' quality based on faculty qualification and research publications.

Looking at the teachers' qualification about 40% of the faculties have Ph.D. which means that the quality of faculty is fairly good. It is found that there is a significant difference between the score of the colleges computed based on the teacher qualification and the score given by NAAC. Thus we can say that despite of the higher weightage given on faculty qualification in NAAC, there seems to be a mismatch between the qualification of the Economics department faculty and the overall NAAC score.

One of the recommendations which follow from this is to have department wise NAAC grading. As we have seen that NAAC is not a good indicator for the quality of Economics Department, by similar logic it may not be a good indicator for other departments also. So then the argument is who does the NAAC score help if it not the proper indicator for the students, parents and recruiting companies.

Another recommendation which follows is that the NAAC score of an institute should be divided into two parts one for the overall facility and common infrastructure of the college and the other part should be Department wise scores, which will incorporate quality of faculty, curriculum, students selection etc.

In case of Publications, there are only a few publications in the EPW journal, which clears highlights the lack of research interest and research work going on the Economics Departments.

To realise the true quality of M.A. Economics course taught across all colleges in Kerala, a survey should be conducted based on a common examination for all students of a particular course say, M.A. economics across all districts, all universities and colleges and then it can be seen how students perform, across districts and colleges. This can also be stretched across different states. M.A. Economics course in Kerala can be compared with the course taught in the top Economics schools in India like Delhi School of Economics (DSE), Indira Gandhi Institute for Research and Development (IGIDR), Madras School of Economics (MSE) etc.

Another area which needs immediate attention is curriculum upgradation. Not only should the curriculum be updated and made relevant to contemporary requirements, the commonality and acceptability of the courses offered in a particular degree programme within the State is equally important. Secondly, *the course contents and programmes should also be comparable across the country.*

This report can be used for an extended study for further usage. There are a number of other aspects that can be considered for analysing the quality of education in detail.

Bibliography

- (2013). *Annual Status of Education Report (Rural)*. New Delhi.
- Centre for Development Studies, C. (2006). Reckoning Promise - A Critical View Of Kerala's Advantage In Educational Capability. *Human Development Report 2005*. Thiruvananthapuram: State Planning Board, Government of Kerala.
- Deshpande, S. (2002). Social Science Research Capacity in South Asia. *Economic & Political Weekly*, 37.
- Dore, R. (1976). The Diploma Disease: Education, Qualification and Development.
- Guha, R. (2008). Autonomy and Ideology. *Economic & Political Weekly*, 43, pp. 33-35.
- ICSSR. (2007). *Report of the Fourth Review Committee*. New Delhi: Indian Council of Social Science Research.
- Jaleel, K. (1997). Education in Kerala: The Post Independence Period. (D. o. Relations, Ed.) *Kerala Calling*, 17, p. 50.
- KSHEC. (2012). *Report on Kerala State Higher Education Policy*. Kerala State Higher Education Council. Thiruvananthapuram: Government of Kerala.
- KSHEC. (2013). *Report of the Committee on Autonomy of Colleges in Kerala*. Kerala State Higher Education Council. Government of Kerala.
- KSHEC, K. S. (2008). *The Report of the Committee for Restructuring Undergraduate Education*. Thiruvananthapuram: Government of Kerala.
- KSPB, K. S. (n.d.). Perspective Plan Kerala 2030. 2, 36. Kerala State Planning Board.
- Lewis, J. (1997). *India's Political Economy: Governance and Reform*. Delhi: Oxford University Press.
- Little, A. (2003). Motivating Learning and the Development of Human Capital. *Compare: A Journal of Comparative and International Education*, , 33, pp. 437-452.
- Mathew, E. (1995, February 11). Educated Unemployment in Kerala: Some Socio Economic Aspects. *Economic and Political Weekly*, 30, pp. 325-335.
- MHRD. (2014). *Analysis of Budgeted Expenditure on Education*. Planning and Monitoring Unit, Department of Higher Education. New Delhi: Government of India.
- Mishra, D. S. (2006). Quality Assurance in Higher Education. *NAAC*, pp. 50-51.
- NIRF, N. I. (2016). *India Rankings 2016*. Ministry of Human Resource Development, Government of India., Department of Higher Education.
- State Planning Board. (2008). *Economic Review*. Thiruvananthapuram: Government of Kerala.
- Rajini, K. (2009, October). Human Resource Development in Higher Education in Kerala. Kochi, Kerala: Cochin University of Science and Technology.

- Ramachandran, V. (1997). A Note on Kerala's Development Achievements. *Oxford University Press*.
- Riedmiller, B. C. (1997). Tanzanian Education in the Nineties: Beyond the Diploma Disease. *Assessment in Education*, pp. 121-136.
- (2004-05). *Selected Educational Statistics*. Government of India, Department of Higher Education. Ministry of Human Resource Development.
- (2007-08). *Selected Educational Statistics*. Ministry of Human Resources and Development. New Delhi: Ministry of Human Resources and Development.
- Sen, A. (2005). The Country of First Boys. *The Little Magazine*, 6(1 & 2), p. 10.
- Sen, A. (2005). The Country of First Boys. *The Little Magazine*, 6, p. 10.
- (2007-08). *Statistics Of School Education*. MHRD.
- (n.d.). *Statistics of School Education(2007–08)*. Government of India. MHRD.
- (n.d.). *The Annual Status of Education Report, ASER 2012*. Government of India. New Delhi: Minister of Human Resource Development.
- Tilak, J. B. (2001). *Higher Education and Development in Kerala*. Kochi: Centre for Socio-economic & Environmental Studies.
- UGC, U. G. (2008). *Issues related to Expansion, Inclusiveness, Quality and Finance*. New Delhi.
- V Kalyan Shankar, R. S. (2015, August). What Does an MA Know? - Postgraduate Learning Deficits and the Diploma Disease in Social Sciences. *Economic & Political Weekly*, 31, pp. 40-48.
- Vaidyanathan, A. (2001). Social Science Research in India: Some Emerging Issues. *Economic & Political Weekly*, 36, pp. 112-114.
- Wang, X. (2013). Why Students Choose Stem Subjects: Motivation, High-School Learning and Postsecondary Context of Support. *American Educational Research Journal*, 50.
- World Bank. (2012). *Putting Higher Education to Work: Skills and Research for Growth in East Asia*. Washington DC : World Bank.
- Zachariah, G. (2010). *Changing Enrolment Patterns in Arts and Science Colleges in Kerala*. Centre for Socio-economic & Environmental Studies. Kerala State Higher Education Council, Government of Kerala.

Appendix A

District: Palakkad

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Govt. Victoria College	University of Calicut	7	Bindu Balagopal	1	1	0		
			Parvathy P	1	0	1		
			Kavitha A C	1	0	0		
			Jisha K K	1	0	0		
			Vijaya K M	1	1	0		
			Manikandan K	1	0	0		
			Jeeja K S	1	1	0		
Govt.College, Chittur	University of Calicut	7	Dr. K. Baby	1	0	1		
			Smitha P	1	0	1		
			Prasad M.G	1	0	1		
			Manju Varghese	1	1	0		
			Nagaraj S	1	0	1		
			Sumathy.M	1	0	1		
			Brejesh N.S	1	0	0		
Mercy College	University of Calicut	8	Dr. Sr. Lilly P.V.	1	0	1		
			Ms. Deepa N.	1	0	0	Net	
			Sr. Tessy Jos Chervathoor					
			Ms. Ambili S					
			Ms. Jasmine Treesa T.J					

			Ms. Anjuna T.R					
			Ms. Sreeja V.					
			Ms. Shiny L					
MES College, Mannarkkad		8	Mr.Mohammed Kamaluddin	1	1	0		
			Dr.V A Hassena	1	0	1		
			Ms K Jaseena	1	0	0		
			Mr.M Ramadas	1	0	0		
			Mr.Azad P	1	1	0		
			Ms Anu Joseph	1	0	0		
			Ms V.K Nasiya	1	0	0		
			Ms.K.H Sanooja	1	0	0		
NSS College, Ottapalam		6	Dr. Maya C Pillai					
			Anuradha .P.					
			Vishnu P.S					
			Radhika Krishnan					1
			Harikrishnan M					
			Rahul V. Kumar					
S.N.G.S. College, Pattambi								

District: Thrissur

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
C. Achuthamenon Govt. College	University of Calicut							
Christ College,	University of Calicut	2	P.R. Bose	1	1	0		

Irinjalakkuda								
			Franco T. Francis	1	0	1	M Ed	
			Dr. Unni C. J	1	0	1		
			Dr. E. M. Thomas	1	0	1		
			George Kolengaden	1	1	1		
			Dr. K.A. Stephenson	1		1		
Dept. of Economics Arannattukara	University of Calicut	6	Dr. Mani K. P	1	0	1		
			Dr. K. V Ramachandran	1	0	1		
			Dr. D Retnaraj	1	0	1	MCT	
			Dr. K.X. Joseph	1	0	1	MSc; MBA; PGDSQC	
			Shyjan D	1	1	1		
			Dr. Zabeena Hameed	1	0	1	NET	
LF College, Guruvayur	University of Calicut	6	Sr.J.Bincy	1	0	0	NET	
			Jeena Mariot Xavier	1	0	0	NET	
			Sreejitha M V	1	0	0	NET	
			Ameera R.A	1	0	0	SET	
			Raji T.A	1	0	0	NET	
			Nicy Jose	1	0	0	NET	
M.D.College, Pazhanji	University of Calicut	7	Smt. Lalu Isaac	1	1	0		
			Sri. Baby Joesph	1	1	0		
			Dr. G. Rajeev	1	1	1		
			Dr. K. Rajan	1	1	1		
			Smt. Nafeesathul Misiriya	1	1	0		
			Dr. P.M. Rejimon	1	0	1		
			Smt. Jessy David	1	0	0	NET	
PMG College, Chalakudy	University of Calicut	5	Dr.C.C.Babu	1	0	1		
			Prof. M.A Ullas	1	0	0	NET	

			Prof Jayasree Paul	1	1	0	NET	
			Prof. Thomas Mathew	1	0	0	NET	2
			Dr.Sinitha.Xavier	1	0	1	NET	
S.H. College, Chalakudy	University of Calicut	6	Dr. Chacko Jose P	1	1	1		
			Ms. Shirley Jose K	1	1	0		
			Ms. Jini Thomas	1	0	0		
			Ms. Praseetha V.P	1	0	0		
			Ms. Hima	1	0	0		
			Sr. Salomi P.L.	1	1	0		
S.N. College, Nattika	University of Calicut	7	Smt. K. Sujatha	1	0	0		
			Smt. C. Sreelatha	1	0	0	M Sc	
			Smt. K.G. Yamuna	1	0	0		
			Smt. Vidhu Johnson	1	0	0		
			Sri. K.P. Sayooj Kumar	1	0	0		
			Smt. V. Pushpalatha	1	1	0		
			Smt. Soumya. S.	1	0	0		
Sree Kerala Varma College Thrissur	University of Calicut	7	Prof.P.V.Rajasekaran	1	0	0		
			Dr. T.D.Simon	1	0	1		
			Prof.C.Anila	1	0	0		
			Dr. M.Sindhu	1	0	1		
			Prof.M.Shijitha	1	0	0		
			Dr.P.V.Smitha	1	0	1		
			Dr.P.Pradeep	1	0	1		
St. Aloysius College, Elthuruth	University of Calicut	8	Dr.C. P James	1	1	1		
			Mrs. Leema T. G	1	0	1		
			Mrs. Leema T. G	1	0	1		
			Ms. Jessy John	1	0	0		
			Dr. Rajesh K	1	0	1	NET	

			Mrs.Fiji Raphael	1	0	0	NET	
			Dr. Cyril George	1	1	1		
			Mr. Jins Varkey	1	0	1	NET	
St. Joseph's College, Irinjalakuda	University of Calicut	7	Valsa John C	1	1	1		
			Babay V O	1	1	0		
			Beena C A	1	0	0	NET	
			Dr . Liji K T					
			Ms. Sari T C					
			Ms. Salja T K					
			Ms Anisha N G					
St. Thomas College, Thrissur	University of Calicut	7	K. C. Francis	1	0	0		
			Emmanuel Thomas	1	1	0	JRF	
			Dr.Sabu P J	1	0	0		
			Mary K Francis	1	0	0		
			Geetha Gokul	1	1	0	JRF	
			Gini Paul	1	1	0		
			Eljo Joseph T	1	0	0		
Vimala College, Thrissur	University of Calicut	5	Dr.Vimala M	1	1	1		
			Smt.Sitara V.Attokkaran	1	0	0		
			Smt. Mary Thomas K	1	0	0		
			Smt. Sneha Gopeekrishna	1	0	0		
			Ms.Dhanya Shankar.K.S	1	0	0		

District: Alappuzha

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Christian College, Chenganoor		7	Sri. K. G. Vargheese	1	0	0		
			Smt. Jisha John	1	1	0	NET	
			Smt. Suby Elizabeth Oomen	1	1	0		
			Sri. Biji Abraham	1	0	0		
			Dr. Susan Abraham	1	0	1	MBE	
			Prof. Linchu Elizabeth Samuel					
			Prof. Pheba Ann Zachariah					
N.S.S College, Cherthala		7	Dr. N. Madhava Menon	1	1	1	0	
			G.V. Raji Prasad	1	1	0	0	
			RemyaKrishnan R	1	0	0		
			Sindhuja M	1	1	0	NET	
			Sree Lekshmi	1	1	0	NET	
			Prasanth K	1	1	0	NET	
			Rajesh R	1	0	0	NET	
Sanatana Dharma College		5	V. C. Asokan					
			Dr. S. Rajeshkumar					
			Dr. V.R. Prabhakaran Nair					
			Anupama V.					
			Dr. Jacob Chandi					

S.N College, Cherthala		6	Smt. P. Sherly	1	1	0		
			Sri. B. Sudheer	1	0	0		
			Dr. T.V Ushadevi	1	0	1		
			Sri.Adarsh	1	0	0		
			Smt. Sreedevi Gopalakrishnan	1	0	0		
			Smi.Nitheeshkumar P.K	1	1	0		
ST. Michels College, Cherthala		7	Prof. K.G. Thadevoose	1	0	0	NET	
			Prof. Riju Gregory	1	1	0	NET	
			Dr. Sindhu S. Nair	1	0	1	NET	
			Dr. M.A. Florence	1	1	1	NET	
			Mr. AntonyKuriakose P.	1	0	0	NET	
			Mr. Binil K.P.	1	0	0	NET	
			Mr. Abin Albert T.	1	0	0	NET	

District: Malappuram

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
EMEA College of Arts & Science, Kondotty	University of Calicut	6	Dr. Mp Abdulla	1	1	1		
			Mohammed Najeeb Pm	1	0	0	NET	
			Dr.Ummer Ek	1	1	1		

			Abdurazaque.P.M	1	1	0		
			Ibrahim Cholakkal	1	1	0		
			Hussain.V	1	1	0	M Ed	
Govt. College, Malappuram	University of Calicut	8	Rafeek.VH	1	1	1	NET	
			Suprabha.L	1	0	1	NET	
			Krishnan Kutty.V	1	0	1	NET	
			Amina Poovancheri	1	0	1	NET	
			Sajeev.U	1	1	1	NET	
			Sajitha Beevi.Karayil	1	1	1	NET	
			Hyderali K	1	0	1	NET	
			Sunil P	1	1	0	NET	
Marthoma College, Chungathara	University of Calicut	4	Prof. Abraham P. Mathew					
			Sri. Subrahmanian P.V	1	0	0		
			Dhanya C					
			Smt. Anila Raveendran	1	0	0		
MES College, Mampad	University of Calicut	6	Abdul Nasar Valasseri	1	1	0		
			Dr. P. Anwar	1	1	1		
			M. Mohammed Aslam	1	1	0		
			Muhammed Salim.A.P	1	0	0		
			Sajithamohan.M.	1	0	0		
			Shameer Mozhiyan	1	0	0		
MES College, Ponnani	University of Calicut	5	C.T Aboobacker	1	1	0		
			Bushara M.V	1	0	0	PGDHRM	
			Sakkeer P.	1	1	0		
			Shamila V.U.	1	0	0	PGDCA	

			Juvairiya M.E.	1	0	0		
--	--	--	----------------	---	---	---	--	--

District: Wayanad

Name of the college	Affiliated to	Total No. of faculty	Faculty Name	MA	M.Phil	PhD	Other Qualifications	PAPER in EPW
St MAry's Colg	Calicut University	3	Sri. T. A. Thankachan	1	0	0		
			Smt.Soumya T.Joseph	1	0	0		
			Dr. Gisha P. Mathai	1	1	1		

District: Kottayam

Name of the college	Affiliated to	Total No. of faculty	Faculty Name	MA	M.Phil	PhD	Other Qualifications	PAPER in EPW
Baselius College		7	Prof. Shaju M. J	1	0	0	NET	
			Prof. Jeejamol P. M.	1	0	0	NET	
			Prof. Ashly Thomas	1	0	0	NET	
			Prof. Vijeesh Vijayan	1	0	0	NET	
			Prof. Raju John	1	1	0	NET	
			Prof. Thara Thomas	1	0	0	NET	
			Prof. Bejoy D. Abraham	1	0	0	NET	
Bishop Kurialacherry College for women, Amalagiri		7	Dr. Merly Zachariah	1	1	1		
			Dr.Rosamma Joseph	1	1	1		
			Dr. Leena Mathew	1	1	1		
			Dr. Beena George	1	1	1		

			Ms. Diya Philip	1	0	0	NET	
			Smt. Manju Joseph	1	0	0		
			Smt. Kalyanini B.Nair	1	0	0	SET	
Govt. College, Kottayam	Mahatma Gandhi University	7	C D Cherian	1	0	0		
			Rajalakshmi A	1	0	0		
			Joby Joseph					3
			Dr. Anna Abraham Pachayil	1	1	1		
			Shibin Philip	1	1	0		
			Ebsi N J	1	0	0		
KE College	Mahatma Gandhi University	7	Dr.Cyriac Joseph Vempala	1	1	1	MBA, M.Sc.	
			Dr. A. Jose	1	0	1	MSW, MBA	
			Ms. Rinu Jose	1	1	0		
			Ms. Amal Sharin T.J.	1	0	0		
			Ms. Mettilda George	1	0	0		
			Ms. Gincy Susan Lukose	0	1	0	MS	
			Mr. Vinu J George	1	0	0		
NSS Hindu College, Changanacherry		10	Sri. M.V. Suresh					
			Dr. Sheeba V.T.					
			Smt. Parvathy S.					
			Sri. Binukumar B.J.					
			Dr. Shoja Rani B.N.					
			Smt. Praveena K.					
			Smt. K. Shibi					
			Smt. Remya Mohandas					
			Smt. Lekshmi Devi U.R.					
			Smt. Ganga R. Menon					
S.V.R.N.S.S. College,		7	Dr. Sreeja J .P	1	1	1		

Vazhoor								
			Smt. Preethi K. N.	1	0	0	NET	
			Smt. Jayalakshmi K.	1	0	0	M ED NET SET	
			Smt. Hima K	1	0	0	SET	
			Dr. Sreeja J.P	1	1	1		
			Mrs. Sreeja Gopal	1	0	0	NET SET PGDCA	
			Ms. Krishnaprabha.C.B	1	0	0	NET	
St. Dominics College, Kanjirapally	Mahatma Gandhi University	8	Dr.Ruby J A	1	1	1		
			Prof. Jaimol James	1	1	0		
			Prof.Imme Maria Thomas	1	1	0		
			Prof.Rani Thomas	1	0	0		
			Prof.Rekha Jose	1	0	0		
			Prof.Jinu Elizebeth Sebastian	1	1	0		
			Prof.Soumya Maria	1	1	0		
			Mr.Geril Scaria George	1	0	0		
St. George College, Aruvithura	Mahatma Gandhi University	3	Sri. Josiah John	1	0	0		
			Sri. Dawn Joseph	1	0	0		
			prof: Mathew J	1	0	0		
St. Thomas College, Palai		7	Dr. Joy George	1	0	1		
			Mr. Joseph J. Mattam	1	1	0		
			Mr. K.C. Biju	1	0	1		
			Mr. Alan Zacharia	1	0	0		
			Mr. Joben K. Antony	1	1	0		
			Mr. Joji Jacob	1	1	0		
			Mr. Roberse Thomas	1	0	0		
St.Berchmans College,	Mahatma Gandhi	10	L. Unnikrishnan	1	1	0		

Changanachery	University							
			Joseph Kurien	1	0	0		
			Dr. Philip M.P	1	1	1		
			Mathew J Mattam	1	1	0		
			Johnson K Joice	1	0	0		
			Fr. Mohan Mathew	1	0	0		
			Shinu Varkey	1	1	0		
			Dr Anila Skariah	1	0	1	M Ed	
			Dr. Joseph Sebastian Thekedam	1	1	1	M.Ed., MBA PGDHRM	
			Renji Mathew	1	1	0		

District: Ernakulam

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Department of Applied Eco	Cochin University Of Science And Technology	5	Ss.Harikumar	1	0	1		
			Dr.P.Arunachalam	1	1	1		
			Meera Bai M	1	0	1		
			Dr. P.K.Manoj	1	0	1		
			Dr.D.Rajasenan	1	0	1		
Mar Athanasius College	Mahatma Gandhi University	8	Dr. M S Vijayakumary	1	1	1		
			Dr. J Chithra	1	1	1		
			Dr. Manjula.K	1	1	1		
			Dr. Igy George	1	1	1		
			Eldhose A M	1	1	0		
			Sheeba Abraham	1	0	0		
			Puthuma Joy	1	0	0		

			Merin Elizabeth Joy				
Maharajas College	Mahatma Gandhi University	6	Dr. Suni Kumar S. Menon	1	0	1	PGDIB
			Mary Ushes James	1	0	0	
			Ancy V. P.	1	0	0	
			Nishanthi P. U.	1	0	0	
			Martin K. J.	1	0	0	
			R. L. Rejith	1	0	0	
Nirmala College		8	Jenni K Alex				
			Joy Joseph				
			Meera R				
			Shaimon Joseph				
			Alphonsa K Joy				
			Divya K R				
			Liya Mary George				
			Mittumol Babu				
SH College Thevara	Mahatma Gandhi University	8	Cherian P.E	1	1	1	
			Sibi Zacharias	1	1	1	
			Alphonso Ligore T.O				
			K V Raju	1	1	1	
			Madhusudhanan Nair	1	0	1	
			Siby Abraham	0	0	1	
			Agile Joy	0	0	1	
			Vinil KV	1	1	0	
SNM College, Maliankara	Mahatma Gandhi University	4	Dr. S P Sudheer	1	1	1	
			Sri. Vipin K D	1	0	0	MBA
			Sri. Nikihil M B	1	0	0	
			Smt. Nitha A U	1	0	0	

Sree Sankara College, Kalady	Mahatma Gandhi University	7	Mr. N. Shambhu Namboothiry	1	1	0		
			Dr. S. Sreeja	1	1	1		
			Dr. P. Geetha	1	1	1		
			Mr. S. Prasad	1	1	0		
			Dr. Preemy P. Thachil	1	0	1		
			Ms. Rajy Ramakrishnan	1	0	0		
			Ms. K. A. Anumol	1	0	0		
St. Alberts College		7	Sri. T. G. John	1	0	0		
			Benly B	1	0	0		
			Mrs. Neeraja James	1	0	0		
			Mr. Francis	1	0	0	MC	
			Ms. Asha Maria Thomas					
			Ms. Linda George					
			Ms. Jincy Joseph					
St PAuls	Mahatma Gandhi University	6	Mr. Justine George	1	1	0		
			Ms. Sumitha Franklin	1	1	0		
			Mr. Francis Assisi T					
			Mr. Siby K.M.	1	1	0		
			Ms. Smiji A.J.	1	0	0		
			Mr. Stalin P.C	1	0	0		
St. Teresas College	Mahatma Gandhi University	9	Dr. Nirmala Padmanabhan	1	1	1		2
			Smt. Sujatha R.E	1	1	0		
			Dr. Thushara George	1	1	1	NET	
			Dr. Mary Liya C.A	1	0	1	NET, PGDSE	
			Dr. Anupa Jacob	1	0	1	NET, SET	
			Dr. Swathy Varma P.R	1	0	1	NET	
			Smt. Pearly Antony O	1	0	0	M Ed, NET, SET	
			Smt. Anju George	1	0	0	NET	
			Ms. Priyanka T R	1	1	0	NET	

Union Christian College Aluva-2	6	Sunil Abraham Thomas	1	0	0	MBA
		Ms. Suni George J	1	0	0	
		Dr. Rajan Varughese	1	0	1	
		Geethika G.	1	0	1	
		Liji Lawrance	1	0	0	
		Nino Baby	1	0	0	

District: Trivandrum

Name of the college	Affiliated to	Total No. of faculty	Faculty Name	MA	M.Phil	PhD	Other Qualifications	PAPER in EPW
CDS	JNU	19	Amit Shovon Ray	0	1	1	M Sc	
			Beena P.L	1	1	1		2
			Chinnappan Gasper	1	0	1		
			Devika. J	1	0	1		
			Harilal K.N	1	0	1		6
			Hrushikesh Mallick	1	1	1		
			Irudaya Rajan.	1	0	1		
			Joseph K.J	1	1	1		5
			Manmohan Lal Agarwal	1	0	1		4
			Parameswaran. M	1	0	1		
			Praveena Kodoth	1	1	1		
			Ritika Jain	0	0	1	M Sc	
			Srikanta Kundu	0	0	1	M Sc	
			Sunandan Ghosh	1	0	1		
			Sunil Mani	1	1	1	Post Doc	
			Udaya S. Mishra	1	0	1		
			Upasak Das	0	0	1	M Sc	2
			Vijayamohanan Pillai. N	1	0	1	Post Doc	2
			Vinoj Abraham	1	1	1		

M.G.College	NSS	8	Priya L.G.					
			Mini M. Nair					
			Dr. B. Anilkumar					
			Saritha S.					
			R. Lalithambika					
			Shrija Muraleedharan Nambiar					
			Dr. B. Deepa					
			Sangeetha U. V.					
School Of Distance Education	University of Kerala	5	Dr. Prasad A. K.	1	0	1		
			Dr. Manju S. Nair	1	0	1	MBA, Post Doc	
			Dr. Anitha V.	1	1	1		2
			Dr. Abdul Salim A	1	1	1		
			Shri. Siddik R.	1	1	1		
SN College, Sivagiri	University of Kerala	4	Smt. Veena C	1	0	0		
			Dr. Vinod C.Sugathan	1	0	1		
			Smt. Raji Raveendran	1	0	0		
			Smt. Archana S.R	1	0	0		
University College	University of Kerala	13	Dr. V. Nagarajan Naidu	1	1	1		
			Sri. P. Anilkumar	1	0	0		
			Dr. M. P. Abraham	1	1	1		
			Smt. Sheeja J.	1	1	0		
			Dr. R. Santhosh	1	0	1		
			Dr. C. A. Priyesh	1	1	1		
			Sri. Shijo Philip	1	0	0		
			Sri. Shibu A. S.	1	1	0		
			Dr. Sheela M. C.	1	0	1		
			Dr. Abha Benjamin	1	1	1		

			Dr. Jomon Mathew	1	0	1		
			Smt. Reshmi K. Sasi	1	0	0		
			Smt. Sashila A.	1	0	0		
VTM, NSS College, Dhanuvachapuram	NSS	6	Smt.S Gangadevi	1	1	0		
			Akhila Sree	1	0	0		
			Kishore. H	1	0	0	NET, M Sc	
			Vinod Sankar	1	0	0	SET	
			Chithralekha.S.S	1	0	0	NET, SET	
			Archana Sreepadmam	1	0	0	M Ed	

District: Kollam

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
D B College Sasthamcottah	University of Kerala	4	Lakshmidevi C.S.	1	0	0		
			Priyadarsini J.	1	0	0	NET	
			Maya P.K.	1	0	0		
			Sreekala M.	1	0	0		
FMNC Kollam	University of Kerala	11	Dr Titus A.R.	1	0	1		
			Dr Mary Antony	1	0	1		
			Ms Shalini Mathews	1	1	0		
			Mr Ratheesh C.	1	0	0		
			Ms Minu Elza	1	0	0		
			Mr Benjamin Varghese	1	0	0		
			Ms Stella S.	1	0	0		
			Ms Neethu Mathews	1	0	0		
			Ms Liya Joy	1	0	0		

			Ms Saranya Ajithkumar	1	0	0		
			Mr. Nithin Cleetus	1	0	0		
SN College Kollam	University of Kerala	6	Dr.S.Jayasree	1	1	1		
			Dr.S.P.Kumar	1	0	1		
			Sindhu Prathap	1	1	0		
			Aparna.P	1	1	0		
			Bibin Prabhu	1	0	0	PGDCA, NET, SET	
			Vincent Vijayan	1	1	0		

District: Pathanamthitta

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
BAM College, Thuruthicade	Mahatma Gandhi University	3	Ms.Mary Abraham P					
			Dr. Thomson K. Alex					
			Mr.Joseph Kuruvila					
Marthoma College, Thiruvalla	Mahatma Gandhi University	8	Dr. George Mathew	1	1	1		2
			Dr.Icy K. John	1	1	1		
			Prof. Reji Mathew	1	0	0		
			Prof. Anoop Koshy George	1	0	0		
			Prof. Aravind Sankar N	1	0	0		
			Prof. Vinu Govind	1	0	0		
			Prof. Sainshya Suresh	1	1	0		
			Prof. Meenu Mary Roy	1	0	0		

NSS College, Pandalam		8	Smt. Lakshmi N.					
			Sri. N. R. Ranjit					
			Smt. Jyolsna S.					
			Dr. G. R. Lini					
			Smt. Gayathri S					
			Dr. Smitha V. P.					
			Sri. Anish Kumar P. T.					
			Smt. Amritha Vijai					
St. Thomas College, Kozhenchery		7	Jollyamma George	1	1	0		
			Merry Zachariah	1	1	0		
			Shaju K.John	1	1	0		
			Suresh Mathew George	1	1	0		
			Chinnu Mariam Chacko	1	0	0		
			Anju Susan Thomas	1	1	0		
			Anoop Koshy George	1	0	0		

District: Idukki

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Newman College Thodupuzha		6	Dr. Celinkutty Mathew	1	1	1		
			Sri. Xavier Kurian P.	1	0	0		
			Sri. Ratheesh E.R	1	0	0		
			Ms. Rose Mary Varghese	1	0	0		
			Ms. Jipsymol V. Jimmy	1	0	0		
			Sri. Beetu Sebastian	1	0	0		

JPM College of Arts and Science, Kattappana	Mahatma Gandhi University							
---	---------------------------	--	--	--	--	--	--	--

District: Kannur

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Govt. Brennen College, Thalassery	Kannur university	6	Falgunan Kunnappadi	1	1	0		
			Dr. T. Shameer Das	1	1	1	PGDEE	
			Sujith. C	1	0	0	NET	
			Sibi. P. M	1	0	0	NET, PGDCA	
			Smitha. E. K	1	0	0	NET	
			Nisha. P	1	0	0	NET	
Nirmalagiri College, Kuthuparamba	Kannur university	6	Dr. Devasia. M.D	1	1	1		
			Lt.Dr. Sebastian T.K	1	1	1		
			Dr. N.J. Saleena	1	1	1		
			Sri. V.T. George	1	0	0		
			Sri. Johnson George	1	0	0		
			Sri. Manu K.M.	1	0	0		
Sree Narayana College, Kannur	Kannur university							

District: Kozhikode

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Farook College Feroke	University of Calicut	6	K. Mohammed Ashraf	1	0	0		
			P.Muhammad Rasheed	1	0	0		
			K.Shajitha	1	0	0		
			Dr. A.T. Abdul Jabbar	1	0	1		
			Mohammed Kassim	1	1	0		
			M.T. Shihabudheen	1	1	0		
Govt. Arts and Science College, KKD	University of Calicut	6	Mr. Imbichikoya K.					
			Dr. Savitha K.					
			Dr. Sulojana R					
			Mrs. Rejuna C. A.					
			Mr Rahul K					
			Mrs. GREESHMA H.					
Govt. College Kodenchery	University of Calicut	7	DR. C. Krishnan	1	1	1	PGDDE	
			YC Ibrahim					
			Dr. CP Shayeed Ramsan					
			Shabeer K P	1	1	0	NET	
			O C Abdul Kareem					
			Shareef P					
			Krishnan Kutty					
St. Joseph's College Devagiri	University of Calicut	6	Sanathanan Velluva	1	1	0		
			Dr.Shiby M Thomas	1	1	1		
			Mr. Thomachan K. T	1	0	0		
			Fr. Biju Joseph	1	0	0		
			Ms. Asha Mathew	1	0	0		
			Fr. Anto N.J	1	0	0		

Zamorins Guruvayurappan College	University of Calicut	6	Dr. Mallika M G	1	1	1	NET	
			Anil Varma R.	1	1	0		
			Dr. Remmiya Rajan P.	1	0	1	NET, M Ed	
			Deepa. E	1	0	0	M Ed	
			Jeni. B S	1	0	0		
			Jyotsna P	1	0	0	MA, M Ed	

District: Kasargod

<i>Name of the college</i>	<i>Affiliated to</i>	<i>Total No. of faculty</i>	<i>Faculty Name</i>	<i>MA</i>	<i>M.Phil</i>	<i>PhD</i>	<i>Other Qualifications</i>	<i>PAPER in EPW</i>
Department of Economics, SGS	Central University of Kerala	5	Dr. Anver Sadath	1	0	1		
			Dr. K.C. Baiju	1	0	1		
			Dr.P Abdul Kareem	1	0	1		
			Dr.Syam Prasad	1	1	1		
			Joseph T . J .	1	1	1		
EKNM Govt: College, Elerithattu	University of Kannur	7	Dr. N. Karunakaran	1	1	1	M Ed	
			Sri. K A Johnson	1	0	0		
			Dr. Sandhya P	1	1	1		
			Sri. Babu. C	1	0	0		
			Dr. K P Vipin Chandran	1	1	1		
			Smt. Tessymol George	1	0	0		
			Dr. Jaison V Joseph	1	1	1		
St.Pius Xth College, Rajapuram.P.O	University of Kannur	4	Dr. R. Satheesh Kumar	1	0	1		
			JijiKumari T	1	1	0		

			JOBY THOMAS	1	1	0		
			Sri. Byju Thomas	1	0	0	NET	

Appendix B

District	College Name	NAAC Score	Out of 4
Palakkad	Govt. Victoria College	3.14	1.942857
Palakkad	Govt.College, Chittur	2.78	2.514286
Palakkad	Mercy College	3.32	2
Palakkad	MES College, Mannarkkad	3.2	1.7
Thrissur	Christ College, Irinjalakkuda	3.02	2.6
Thrissur	Dept. of Economics Arannattukara	3.5	2.8
Thrissur	LF College, Guruvayur	3.52	1.2
Thrissur	M.D.College, Pazhanji	2.5	2.4
Thrissur	PMG College, Chalakudy	2.66	2
Thrissur	S.H. College, Chalakudy	3.08	1.666667
Thrissur	S.N. College, Nattika	2.01	1.028571
Thrissur	Sree Kerala Varma College Thrissur	0	1.714286
Thrissur	St. Aloysius College, Elthuruth	3.5	2.45
Thrissur	St. Joseph's College, Irinjalakuda	3.1	2.266667
Thrissur	St. Thomas College, Thrissur	3.58	1.428571
Thrissur	Vimala College, Thrissur	3.5	1.36
Alappuzha	Christian College, Chenganoor	3.09	1.76
Alappuzha	N.S.S College, Cherthala	0	2.228571
Alappuzha	S.N College, Cherthala	3.1	1.466667
Alappuzha	ST. Michels College, Cherthala	3.02	2
Malappuram	EMEA College of Arts & Science, Kondotty	3.02	2.466667
Malappuram	Govt. College, Malappuram	0	3.2

Malappuram	Marthoma College, Chungathara	3.15	0.8
Malappuram	MES College, Mampad	3.5	1.666667
Malappuram	MES College, Ponnani	3.02	1.44
Wayanad	St MArys Colg	3.06	1.733
Kottayam	Baselius College	3.14	1.371429
Kottayam	Bishop Kurialacherry College for women, Amalagiri	3.04	2.514286
Kottayam	Govt. College, Kottayam	0	0.977778
Kottayam	KE COLLEGE	3.1	1.828571
Kottayam	S.V.R.N.S.S. College, Vazhoor	0	1.885714
Kottayam	St. Dominics College, Kanjirapally	0	1.75
Kottayam	St. George College, Aruvithura	3.1	0.8
Kottayam	St. Thomas College, Palai	3.3	1.771429
Kottayam	St.Berchmans College, Changanachery	3.5	2.08
Trivandrum	CDS	0	2.884211
Trivandrum	SCHOOL OF DISTANCE EDUCATION	0	3.2
Trivandrum	SN College, Sivagiri	2.5	1.2
Trivandrum	University College	3.16	2.215385
Trivandrum	VTM, NSS College, Dhanuvachapuram	2.5	1.266667
Kollam	D B College Sasthamcottah	0	0.9
Kollam	FMNC Kollam	3.13	1.2
Kollam	SN College Kollam	2.8	2.2
Pathanamthitta	Marthoma College, Thiruvalla	3.11	1.65
Pathanamthitta	St. Thomas College, Kozhenchery	3.2	1.657143
Idukki	Newman College Thodupuzha	3.12	1.266667
Kannur	Govt.Brennen College, Thalassery	3.04	1.8
Kannur	Nirmalagiri College, Kuthuparamba	3.15	2.2
Kozhikode	Farook College Feroke	3.54	1.466667
Kozhikode	Govt. Arts and Science College, Kozhikode	2.6	1.733333
Kozhikode	Govt. College Kodenchery	2.8	3.2
Kozhikode	St. Joseph's College Devagiri	3.63	1.466667
Kozhikode	Zamorins Guruvayurappan College	2.5	2

Ernakulam	Department of Applied Eco	0	3.04
Ernakulam	Mar Athanasius College	3.22	2.8
Ernakulam	Maharajas College	3.11	1.2
Ernakulam	SH College Thevara	3.3	2.6
Ernakulam	SNM College, Maliankara	0	1.7
Ernakulam	Sree Sankara College, Kalady	2.7	2.342857
Ernakulam	St. Alberts College	3.23	0.9
Ernakulam	St PAuls	3.5	1.52
Ernakulam	St. Teresas College	3.4	2.755556
Ernakulam	Union Christian College Aluva-2	3.35	1.533333
Kasargod	Department of Economics, SGS	3.5	2.8
Kasargod	EKNM Govt: College, Elerithattu	0	2.457143
Kasargod	St.Pius Xth College, Rajapuram.P.O	3.11	1.9