

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# Improving Teaching Quality & Research by Focusing on HEC University Ranking Parameters (A Case of Pakistan)

Engr. Salim Ahmed Khan (*Sitara-e-Imtiaz*), PE

Director, QA – Riphah International University,  
Islamabad, Pakistan

# Mission Statement of HEC Pakistan

*“To Facilitate Institutions of Higher Learning to Serve as an Engine of Socio-Economic Development of Pakistan”*

# Functions of HEC

Provides Policy Guidelines

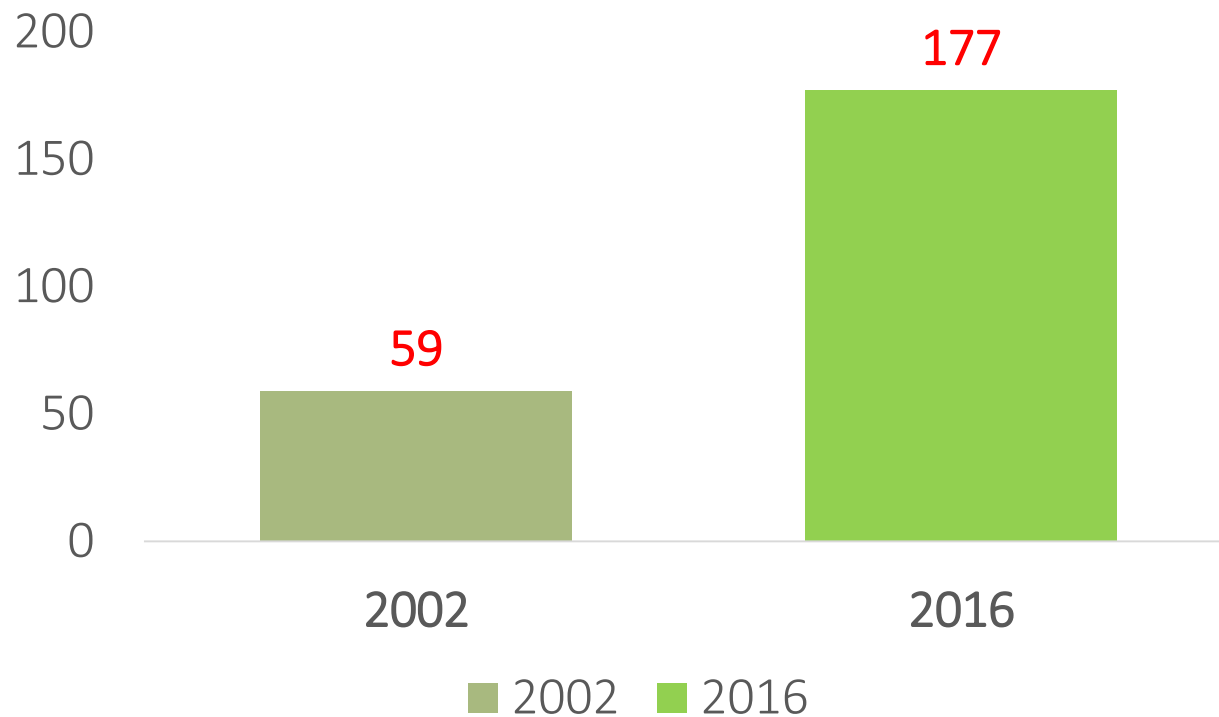
Provides Financial Grants

Institutional Performance Evaluation

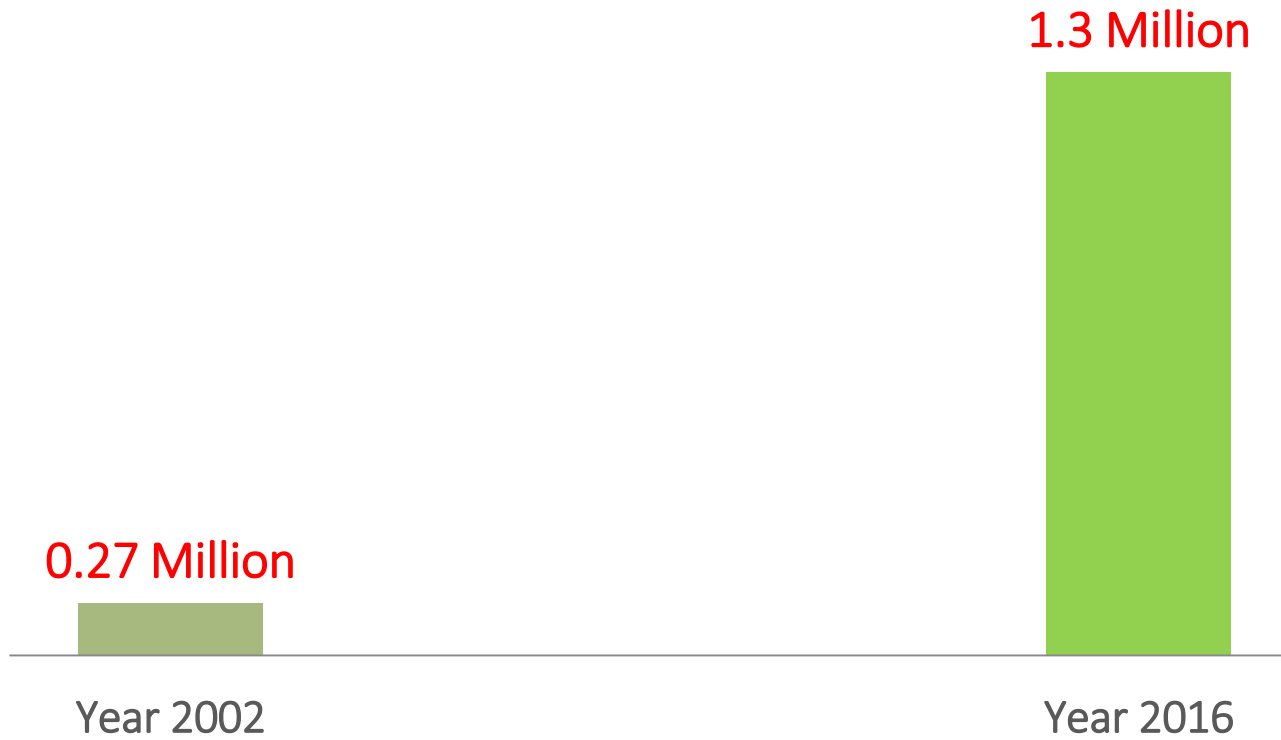
Ranks HEIs

Rates QECs

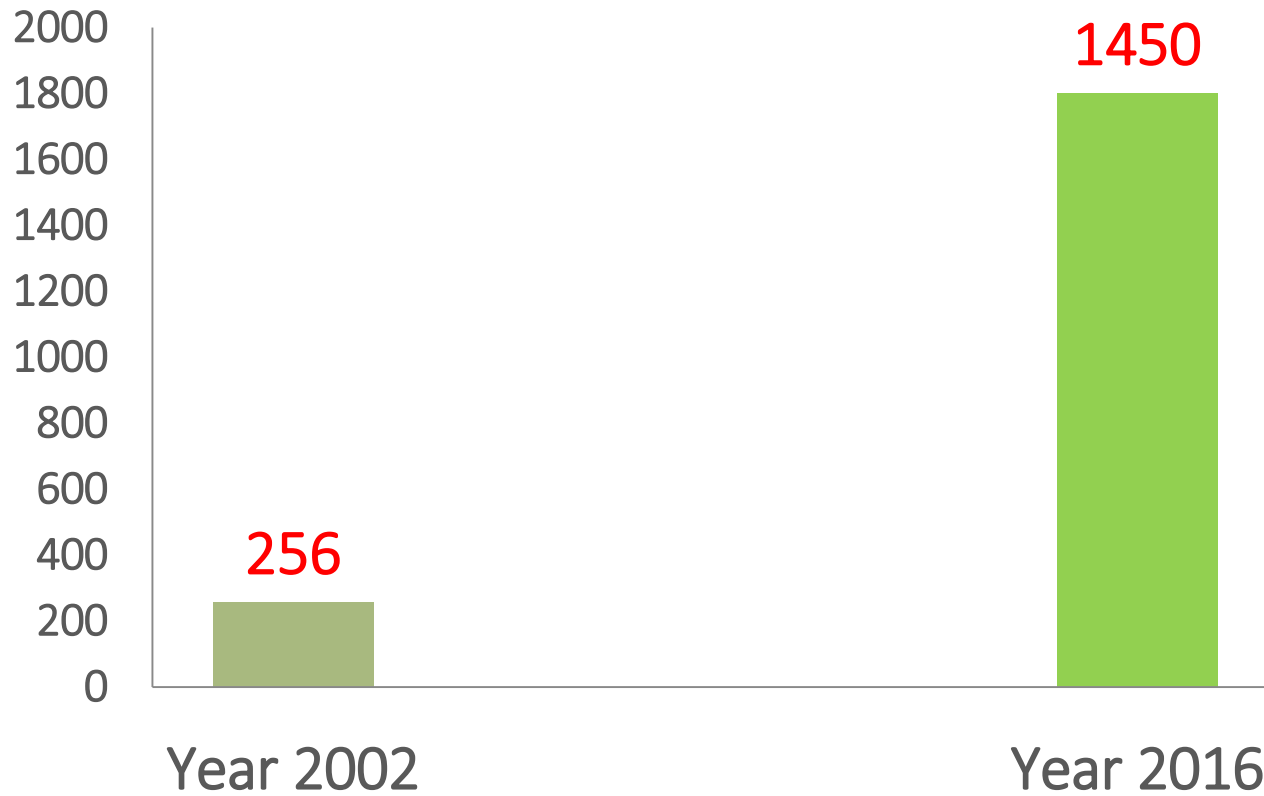
# Increase in number of universities



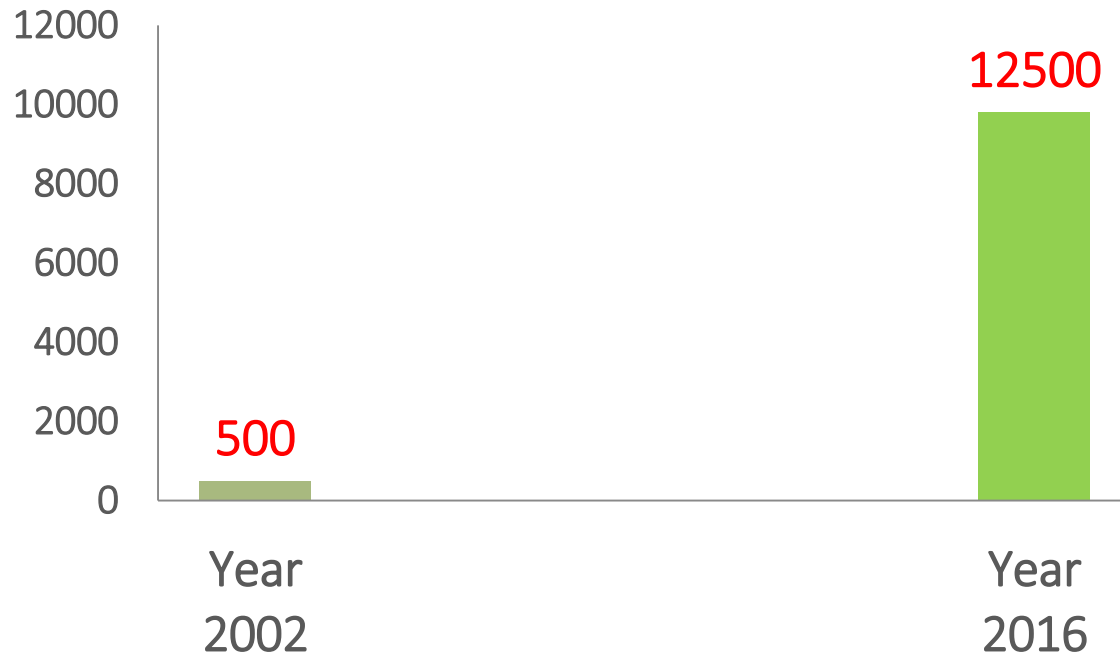
# Students Enrolment



# PhDs Production/Year



# Research Publications/Year





# **HEC University Categorization Criteria**

# *University Categorization Criteria*

- **Categories of Universities**
  1. **General (73)**
  2. **Engineering & Technologies (21)**
  3. **Business Education (15)**
  4. **Agriculture & Veterinary (5)**
  5. **Medical (13)**
  6. **Arts & Designing (2)**

**Note: Not considered**

**<5 Years of age, Distance Learning**

# University Ranking

# University Ranking Parameters

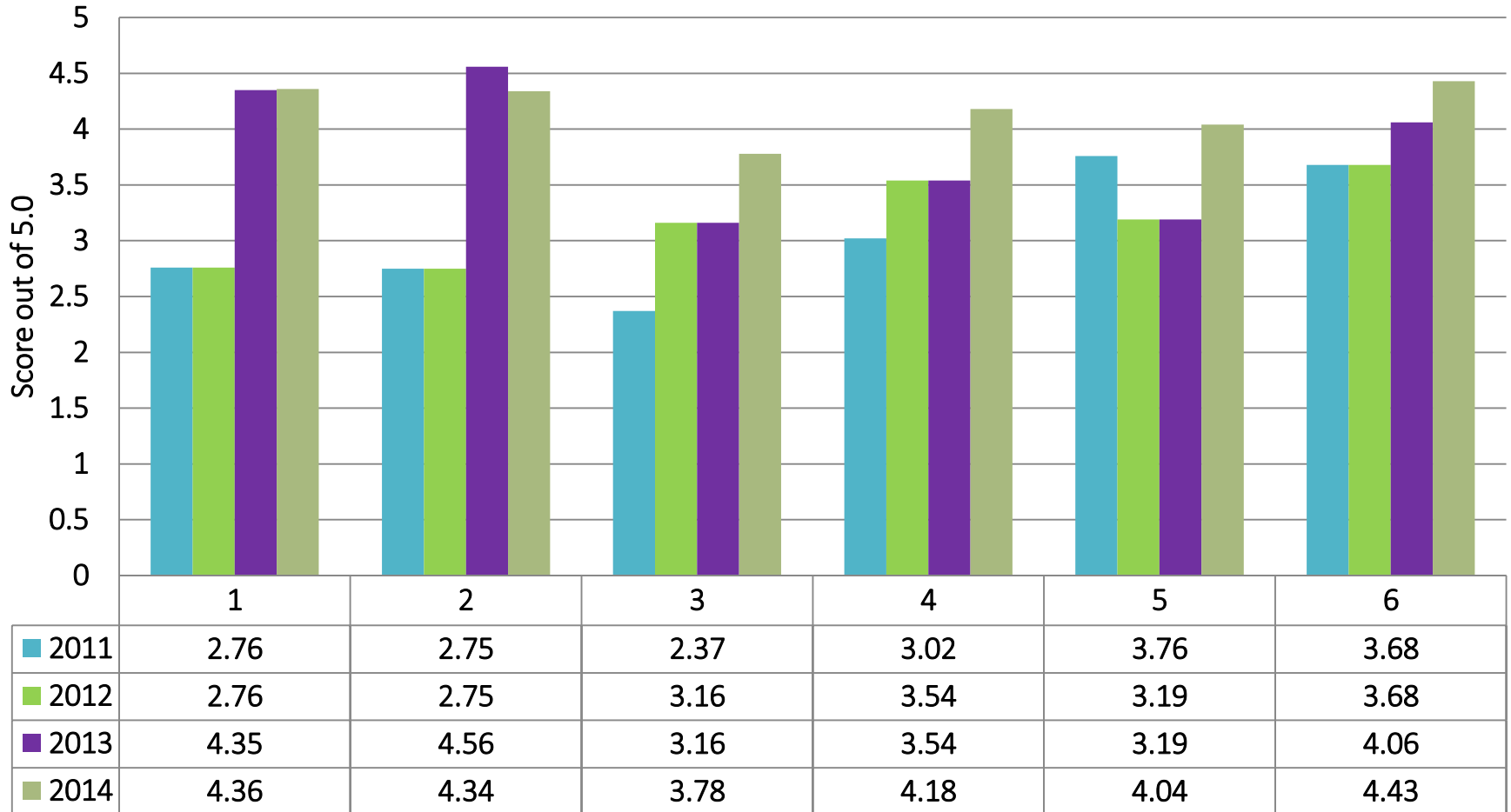
S. No	Categories	Score
1	Quality Assurance	15
2	Teaching Quality	28
3	Research	39
4	Finance & Facilities	8
5	Social Integration	10
Total		100

# Quality Assurance Score Card

S. No	Parameters	Component	Weightage
1	Adoption/Implementation of <b>HEC eligibility criteria for appointments of faculty members</b>	QA	1
2	Adoption/Implementation of <b>HEC criteria of M.Phil/MS/PhD Programs</b>	QA	1
3	Adoption/Implementation of <b>HEC plagiarism policy compliance</b>	QA	2
4	Ratio of <b>number of accredited programs</b> to total number of HEI <b>accreditable programs</b>	QA	4
5	Ratio of <b>number of HEC recognized programs</b> (non-accreditable) to total number of HEI <b>non-accreditable</b> programs	QA	1
6	<b>Rating of Quality Enhancement Cells (QECs) of the HEIs</b>	QA	4
7	<b>Student Feedback</b>	QA	1
8	Ranking of HEIs in <b>latest international rankings</b>	QA	1
<b>Total</b>			<b>15</b>

# TEACHER'S SELF-IMPROVEMENT EVIDENCE

## FMS 2011, 2012, 2013 & 2014 Comparison



# Teaching Quality Score Card

S. No	Parameters	Component	Weightage
9	Ratio of <b>Full time PhD faculty to full time total faculty</b>	Teaching Quality	7
10	Full time <b>teacher to student ratio</b>	Teaching Quality	7
11	Ratio of <b>full time faculty load to total faculty load</b>	Teaching Quality	4
12	Number of <b>national/International awards won by full time faculty</b> members per total full time faculty	Teaching Quality	2
13	Ratio of Number of <b>faculty members retained</b> at university <b>for more than 03 years</b> to total fulltime faculty members	Teaching Quality	2
14	Ratio of their <b>faculty having terminal degrees</b> from other institutions over total full time faculty members	Teaching Quality	2
15	<b>Selectivity: enrollment ratio (fresh intake) to total applicants</b>	Teaching Quality	4
<b>Total</b>			<b>28</b>

# Research Score Card

S. No	Parameters	Component	Weightage
16	Ratio of <b>HEC approved PhD supervisors</b> to full time PhD faculty	Research	2
17	Ratio of <b>active PhD students to total active enrolled students</b>	Research	3
18	Total <b>PhD output</b> per fulltime faculty during the year.	Research	2
19	Ratio of <b>R&amp;D Expenditure</b> / Annual Expenditure of HEI	Research	2
20	Amount of <b>external research grants won/obtained by HEIs (grant &gt;= 0.25 million)</b> per fulltime faculty	Research	3
21	Total number of <b>papers published in impact factor journals</b> (ISI web of sciences) and HEC recognized journals (W, X & Y category journals), Books and Book Chapters by the HEIs for the year per full time faculty	Research	4



# Research Score Card

S. No	Parameters	Component	Weightage
22	<b>Citations</b> (from CPCI conferences + ISI impact factor Journals). Books and Book Chapters per fulltime faculty (last 05 years publications)	Research	4
23	<b>University H Index</b>	Research	2
24	<b>Number of registered Patents</b> at national/international level per full time faculty for last 10 years	Research	1
25	<b>Number of registered Varieties/ Technologies/ Breeds and Creative Work</b> recognized at national / international level per full time faculty for last 10 years	Research	2
26	<b>Number of Commercialization of registered Varieties/ Technologies/ Breeds and Creative Work</b> at national /international level per full time faculty for last 10 years	Research	1

# Research Score Card

S. No	Parameters	Component	Weightage
27	Number of <b>W category Journals Published</b> by the HEIs (Science and Social Science Journals)	Research	2
28	Number of <b>X category Journals Published</b> by the HEIs (Science and Social Science Journals)	Research	1
29	<b>Number of international conferences/symposia/workshop/seminar / creative work exhibitions organized (at least 3 International participants</b> traveling from abroad specifically for the conference) by the HEI during the year. Minimum 08 contact hours.	Research	2
30	Number of <b>National conferences/ symposia/ workshop/ seminar / creative work exhibitions</b> organized by the HEI ( <i>2 days or more</i> ). Minimum 08 contact hours.	Research	2
31	Number of <b>total CPCI (WoS) indexed conference papers</b> per full time faculty	Research	2

# Research Score Card

S. No	Parameters	Component	Weightage
32	Number of <b>industrial / corporate / community / collaborative projects</b> (incl art projects/creative work/product) completed by HEI students/faculty divided by total fulltime faculty.	Research	2
33	Number of <b>start-ups</b> in last calendar year	Research	2
34	Number of total <b>start-ups survived</b> for more than 01 year.	Research	2
35	<b>Social Impact of HEI Research / Creative</b> work at National level	Research	1
<b>Total</b>			<b>39</b>

# Finance & Facilities Score Card

S. No	Parameters	Component	Weightage
36	<b>Non-Tuition Amount generated through</b> own resource / Annual budget of HEI	Finance & Facilities	1
37	<b>Amount spent on research</b> /library as % age of the total budget	Finance & Facilities	2
38	Total <b>Covered Area</b> per total number of students	Finance & Facilities	1
39	Number of <b>books in library per student</b> excluding e- Library/ digital library books	Finance & Facilities	1
40	Number of <b>Students receiving external scholarships and financial aid</b> per total number of students	Finance & Facilities	1
41	Amount of <b>total scholarships and financial aid</b> in year awarded by HEC divided by self-generated resources.	Finance & Facilities	2
<b>Total</b>			<b>8</b>

# Social Integration /Community Development Score Card

S. No	Parameters	Component	Weightage
42	Number of <b>international /national collaboration/ exchange program</b> (outbound/inbound student & faculty (at least 1 week for faculty & 2 weeks for students)) / fulltime faculty	Social Integration / Community Development	2
43	Number of <b>community outreach programs funded by HEI</b> (amount $\geq$ Rs 0.25 mil), and community service projects by the HEIs (at least 200 students-hrs) / Number of students in HEI	Social Integration / Community Development	2
44	No of <b>Students taking social</b> / community service work/activities (at least <b>05 hours per semester</b> ) per total number of students enrolled	-Do-	3
45	No of <b>players participating</b> in Provincial / National / International Sports events divided by Number of total enrolled students	Social Integration / Community Development	1
46	HEC <b>sports ranking-men</b>	Social Integration / Community Development	1
47	HEC <b>sports ranking-women</b>	-Do-	1
<b>Total</b>			<b>10</b>

# Conclusion

1. **Quality Assurance**
2. **Teaching Quality**
3. **Research**
4. **Finance & facilities**
5. **Social Integration**

Thank You!

