



جامعة حمدان بن محمد  
الإلكترونية  
Hamdan Bin Mohammed  
-University

# المؤتمر السنوي 2011 Annual Congress 2011

Being at the Leading Edge – How to give Quest for Excellence a New Meaning



## المؤتمر الثالث للصحة الإلكترونية في الشرق الأوسط التميز في الرعاية الصحية من المنظور العالمي إلى الفرص المحلية



## 3<sup>rd</sup> e-Health Conference in the Middle East Excellence in Healthcare: From Global Perspectives to Local Opportunities

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# Environmental Health Research in the Eastern Mediterranean: Bibliometric Analysis

Mazen Malkawi

**WHO - Centre for Environmental Health Activities**



**World Health  
Organization**

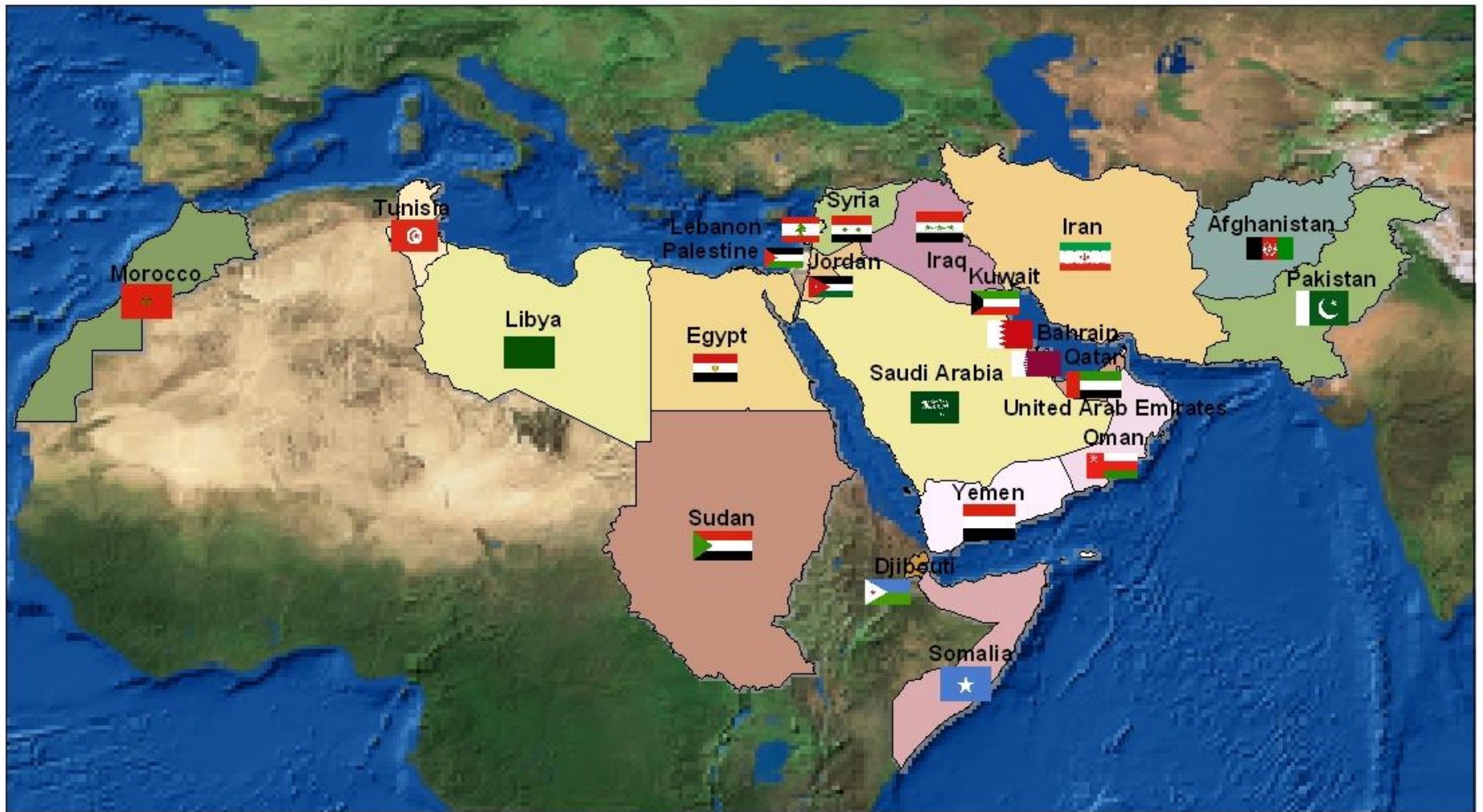
# What is Bibliometrics?

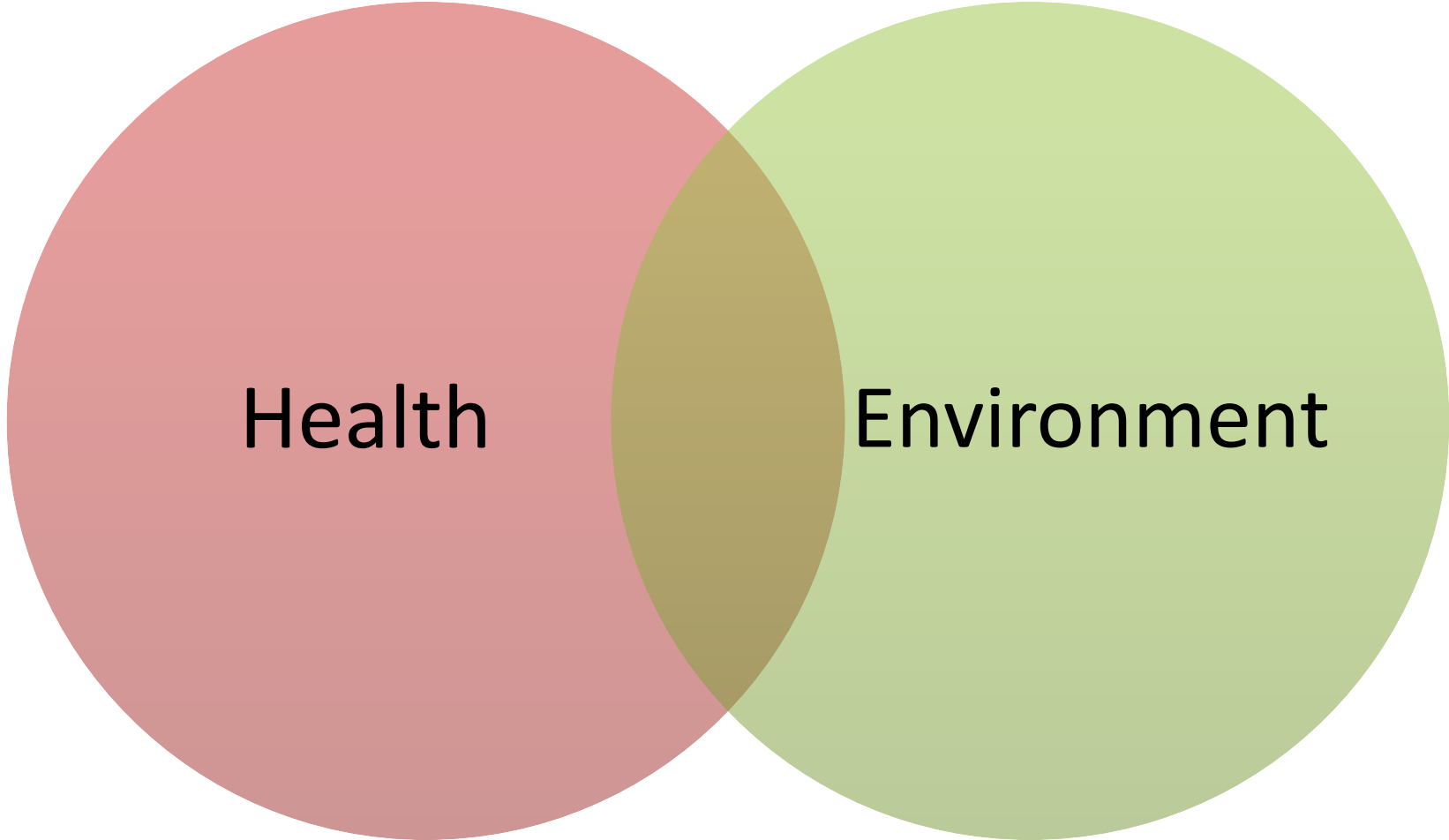
- **Bibliometrics is the application of mathematical and statistical methods to publications. *Bibliometrics is often used to assess scientific research through quantitative studies on research publications.***
- **Applied Bibliometrics, as it is used today, analyzes the number of scientific articles published by a selected number of authors, citations to these articles and connections between articles, authors and subjects.**

The UK government is considering using bibliometrics in its Research Excellence Framework, a process which will assess the quality of the research output of UK universities and on the basis of the assessment results, allocate research funding.

Higher Education Funding Council for England

<http://www.hefce.ac.uk/Research/ref/>.





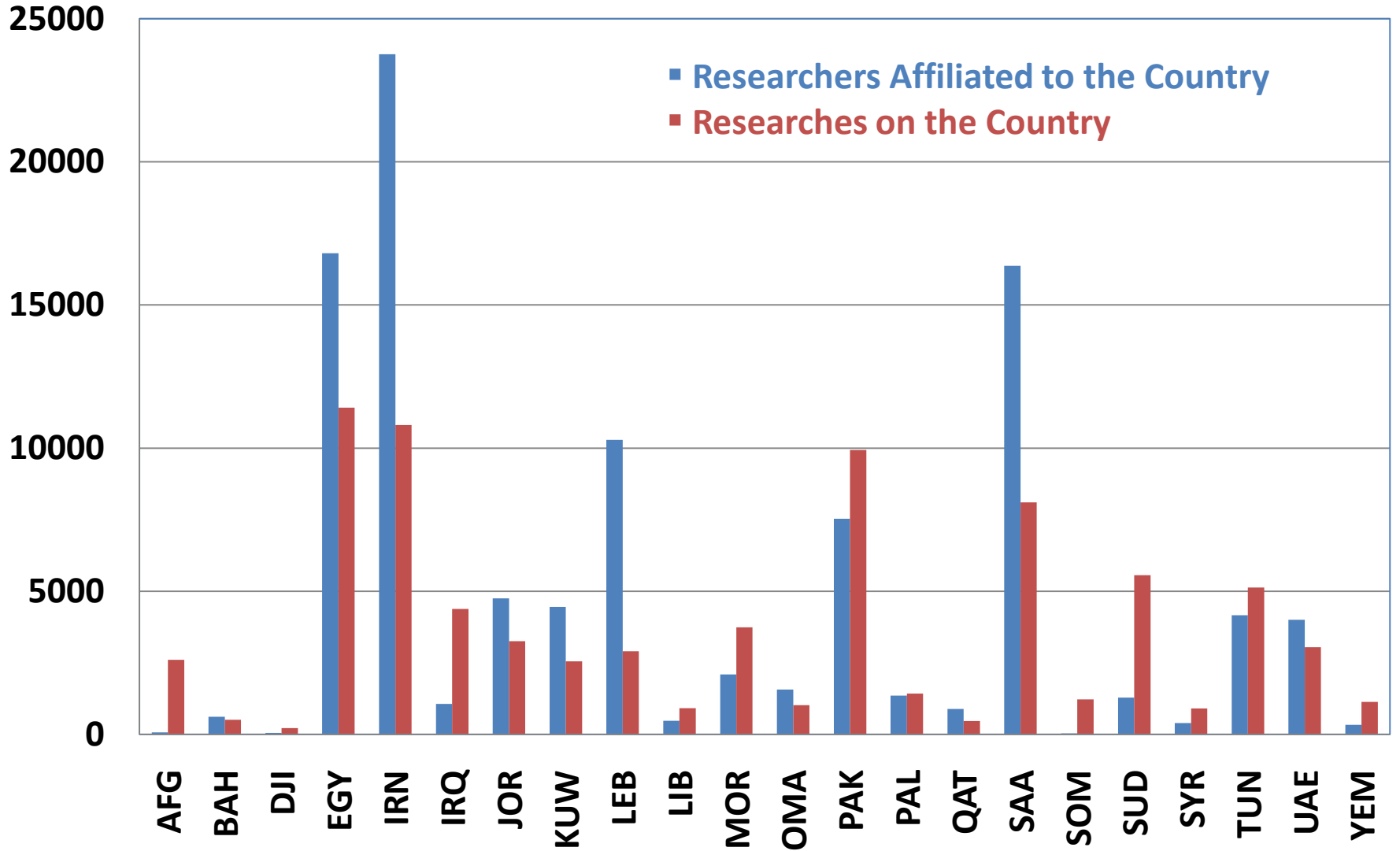
**Health**

**Environment**

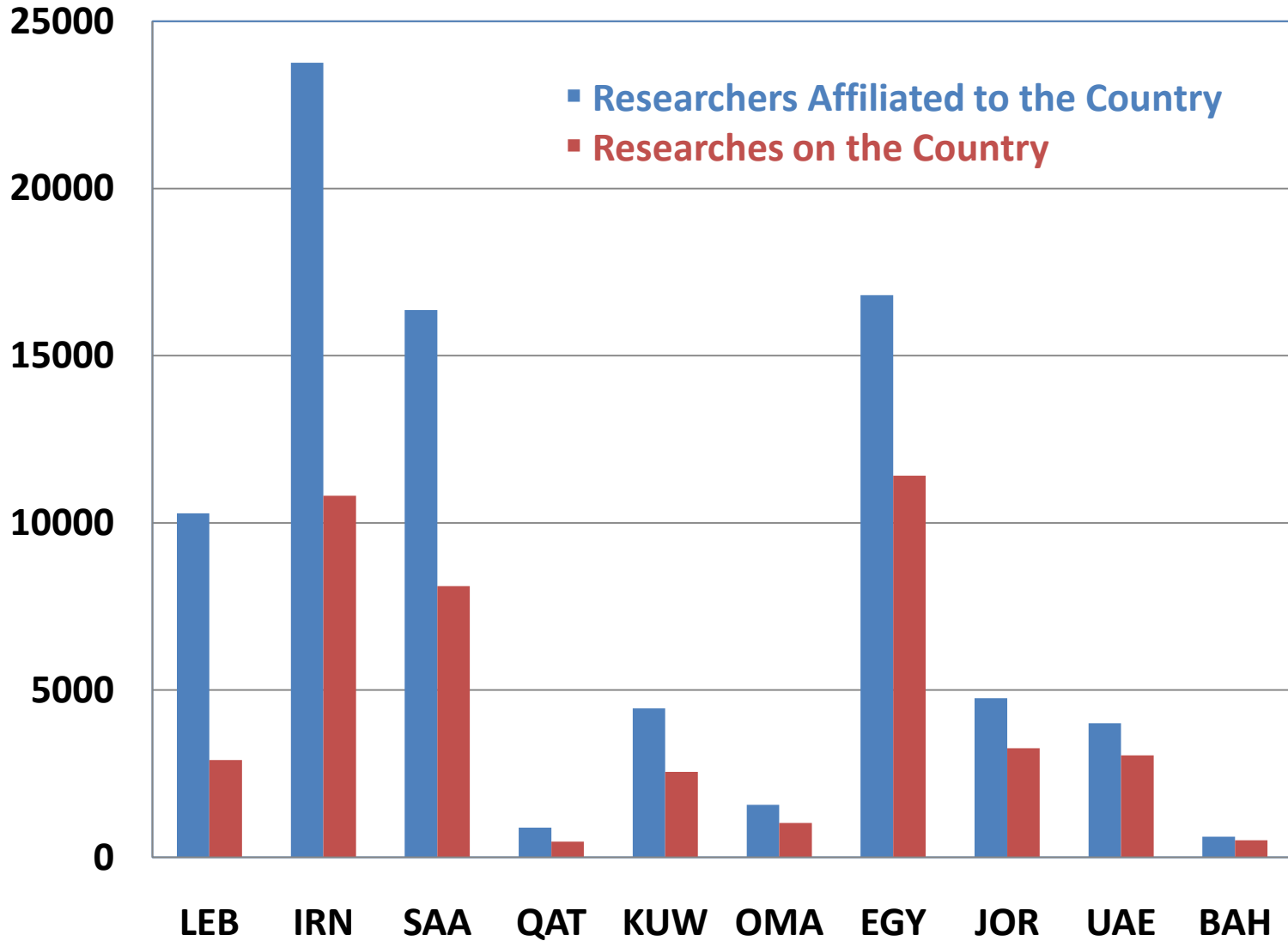


PubMed comprises over 20 million citations for biomedical literature from [MEDLINE](#), life science journals, and online books. PubMed citations and abstracts include the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and preclinical sciences.

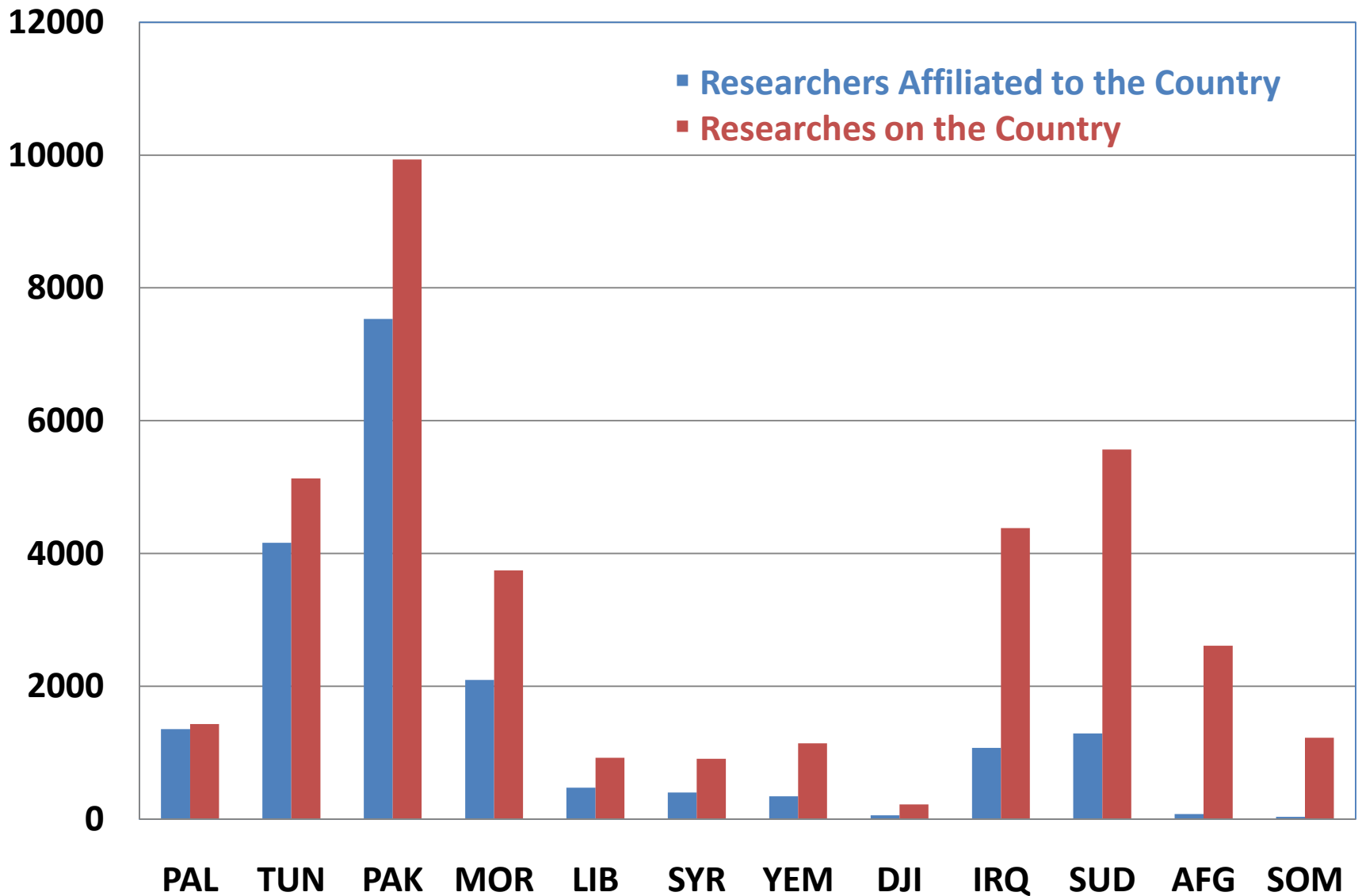
# Health Research in the EMR



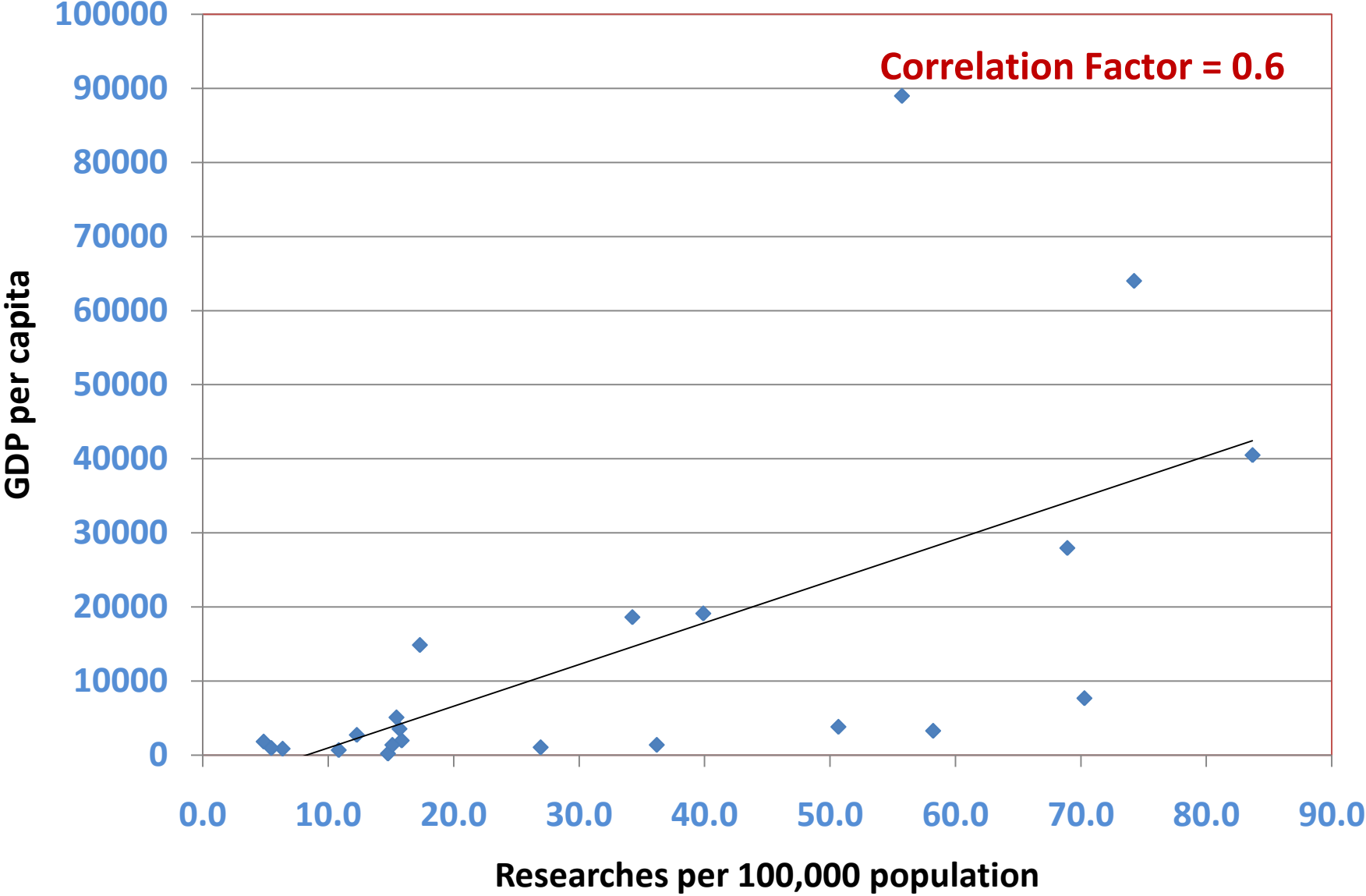
# Group 1: Research Exporters



## Group 2: Research Importers



# Health Research and GDP

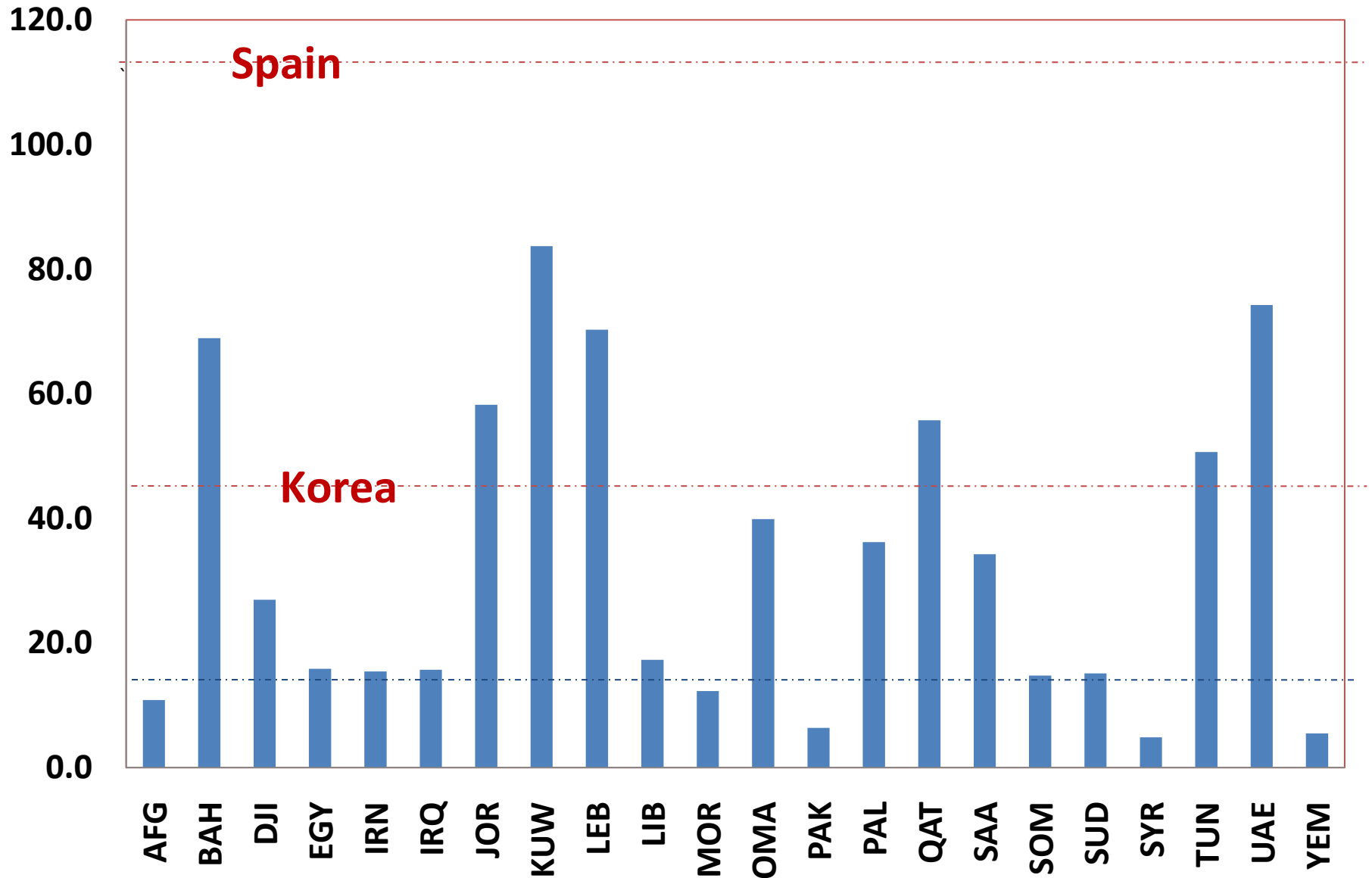


# Health Research: Collaboration

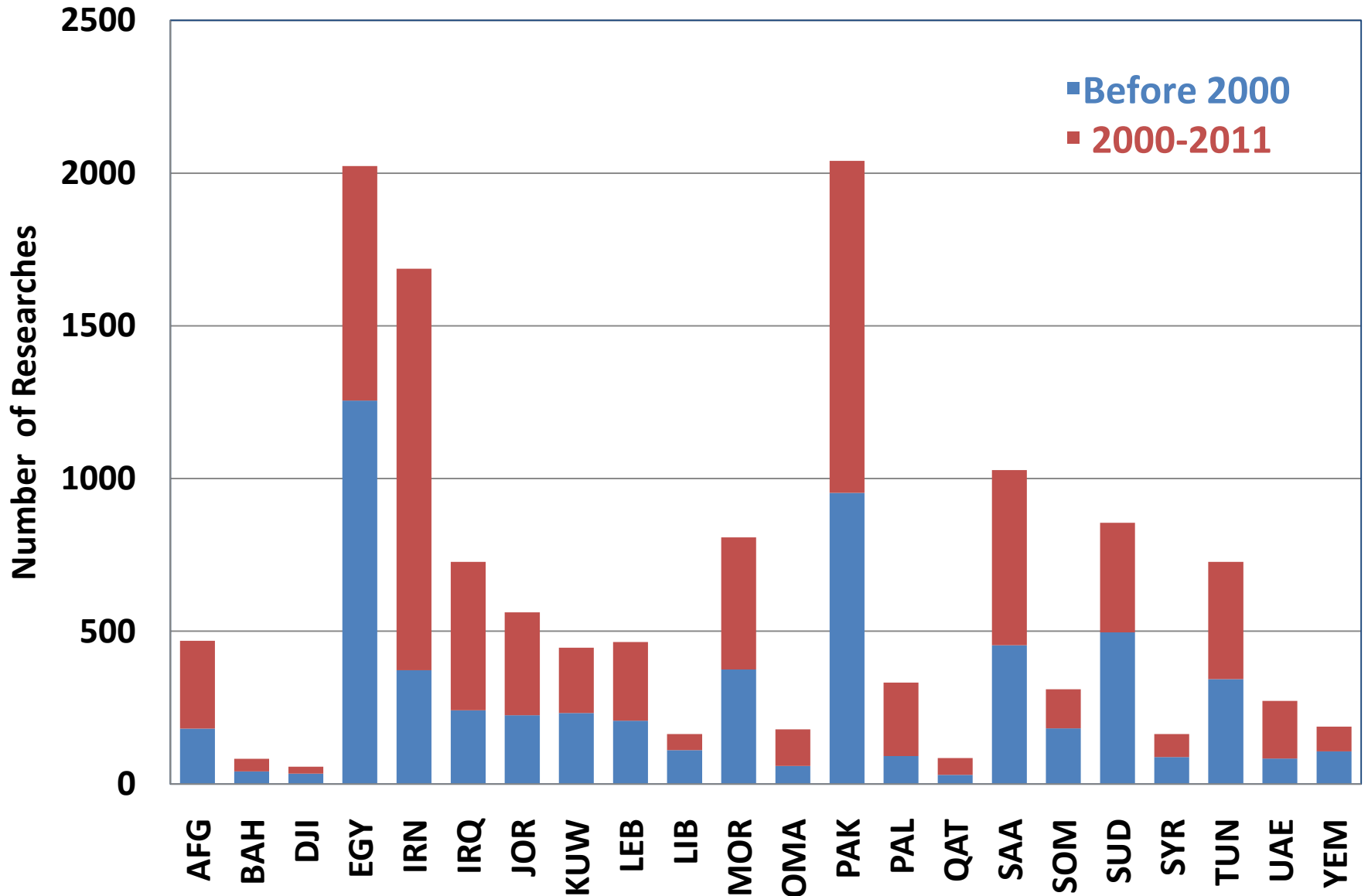
- 21% of the health research is exported outside the region.
- 11% of the health research is covering more than 1 country of the Region (***There is a room for more collaboration***)

Language	No. of Researches	%
English	6595	94.9
French	274	3.94
German	19	0.27
Italian	6	0.09
Spanish	17	0.24
Russian	12	0.17
Arabic	14	0.20
Japanese	6	0.09
Chinese	4	0.06

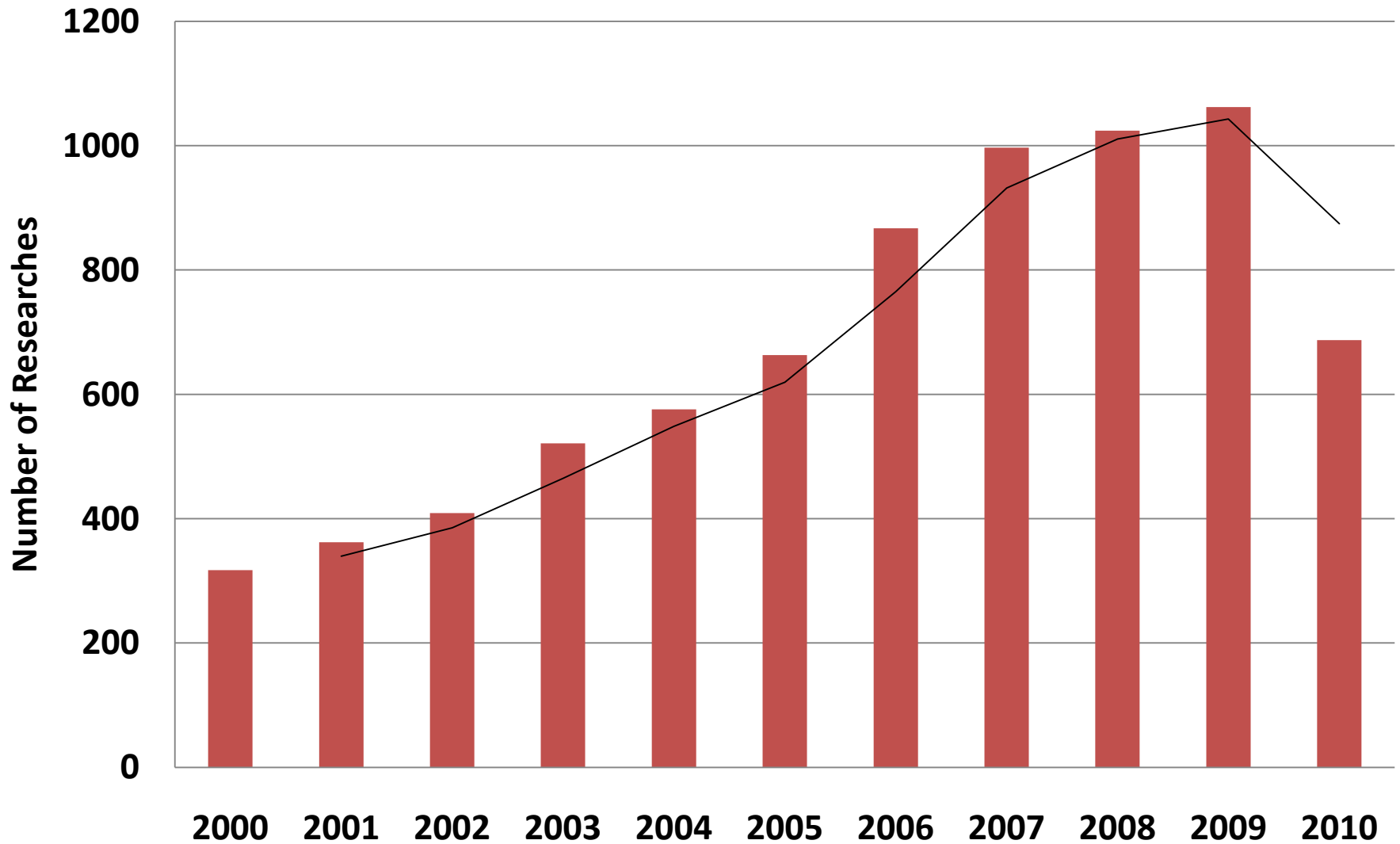
# Health Researches per 100,000 population



# Environment and Public Health Research






# Environment and Public Health Research Trend

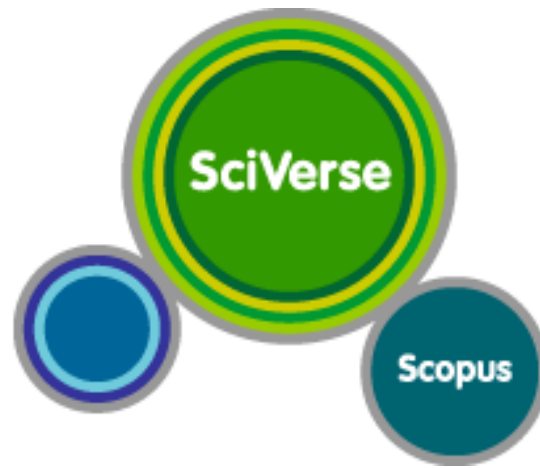


# EMR Research Priorities 2000-10

Subject	%
Water Related Issues	10.1
Environmental Exposures	9.1
Air Related Issues	5.0
Wastes Related	4.6
Chemicals	4.4
Food Contamination	3.0
Soil Related	2.7
Disasters	2.3
Workplace Environment	2.3

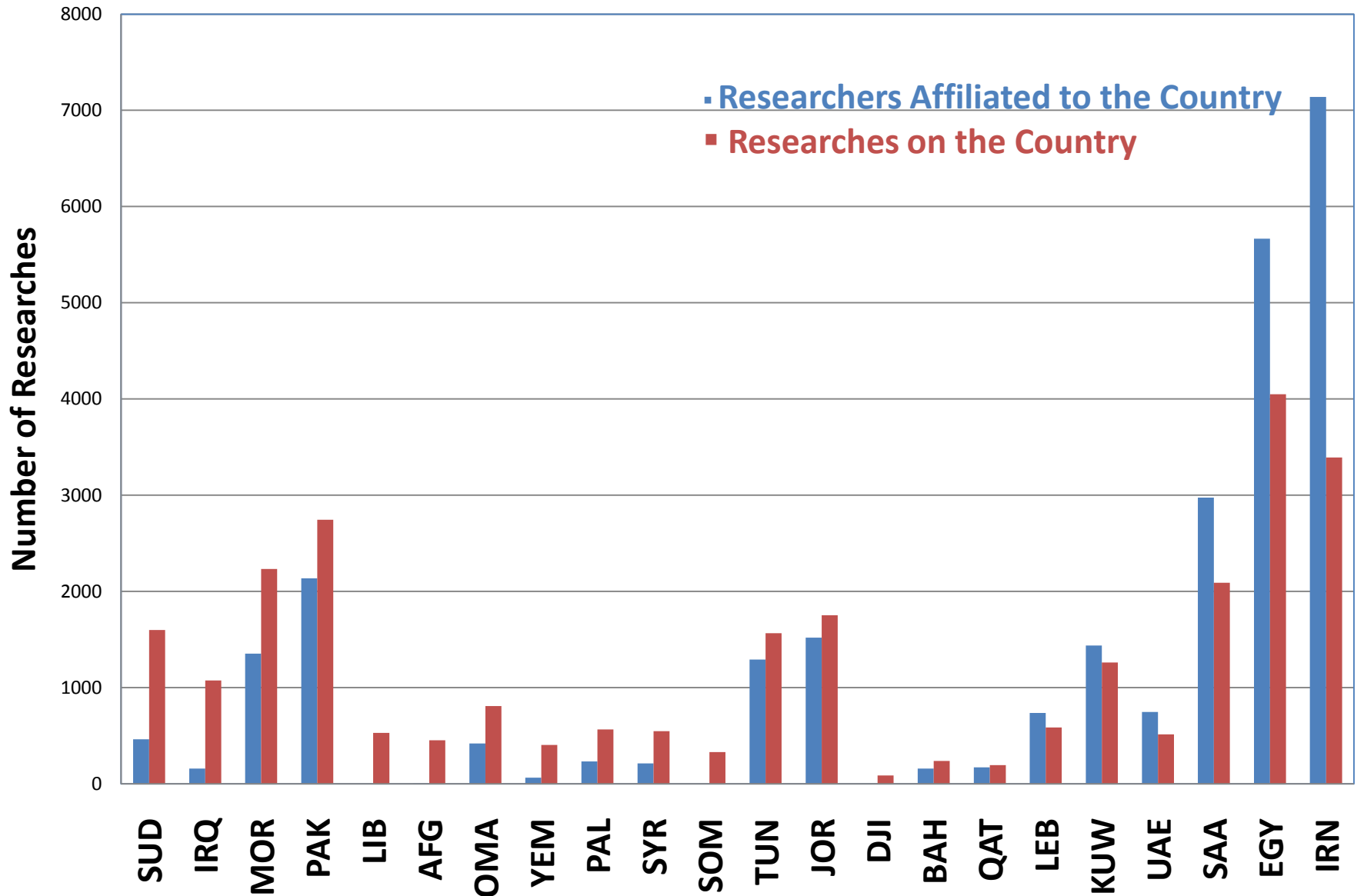
# EMR in Comparison with Europe

Subject	EMR %	EU %
Environmental Pollution	32.4	7.8
 Environmental Exposures	9.1	20.8
Environmental Health Hazards	19.0	4.0
 Environmental Diseases	4.4	15.0
 Work Environment and Health	3.0	36.9
EH Risk Assessment	1.4	3.1
EH Risk Management	1.9	3.5
EH Policy	1.0	1.2

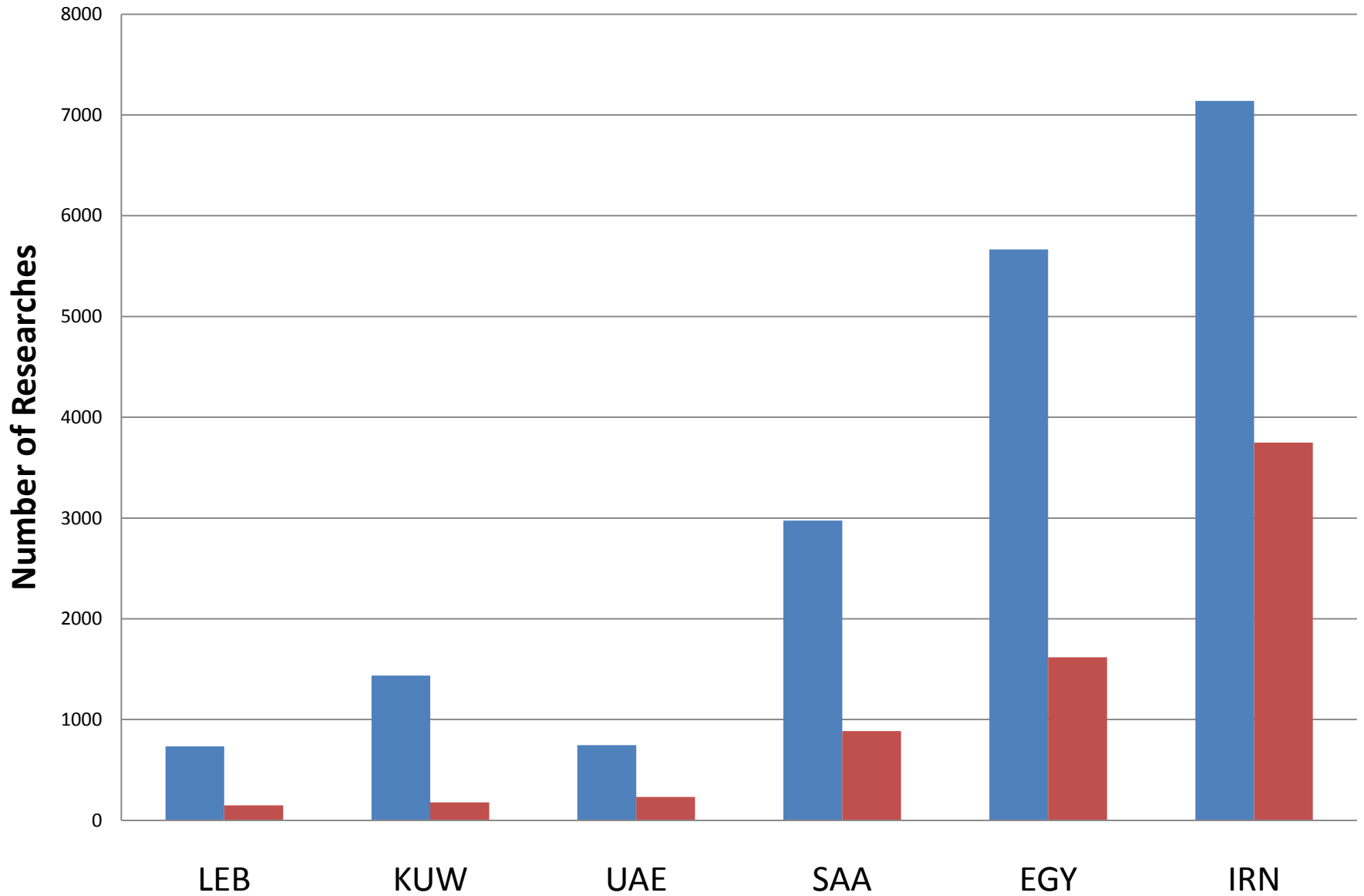


Scopus is the world's largest abstract and citation database of peer-reviewed literature and quality web sources. It contains 41 million records on scientific, technical, medical and social sciences fields and, more recently, also in the arts and humanities. It covers nearly 18,000 titles from 5,000 publishers worldwide.

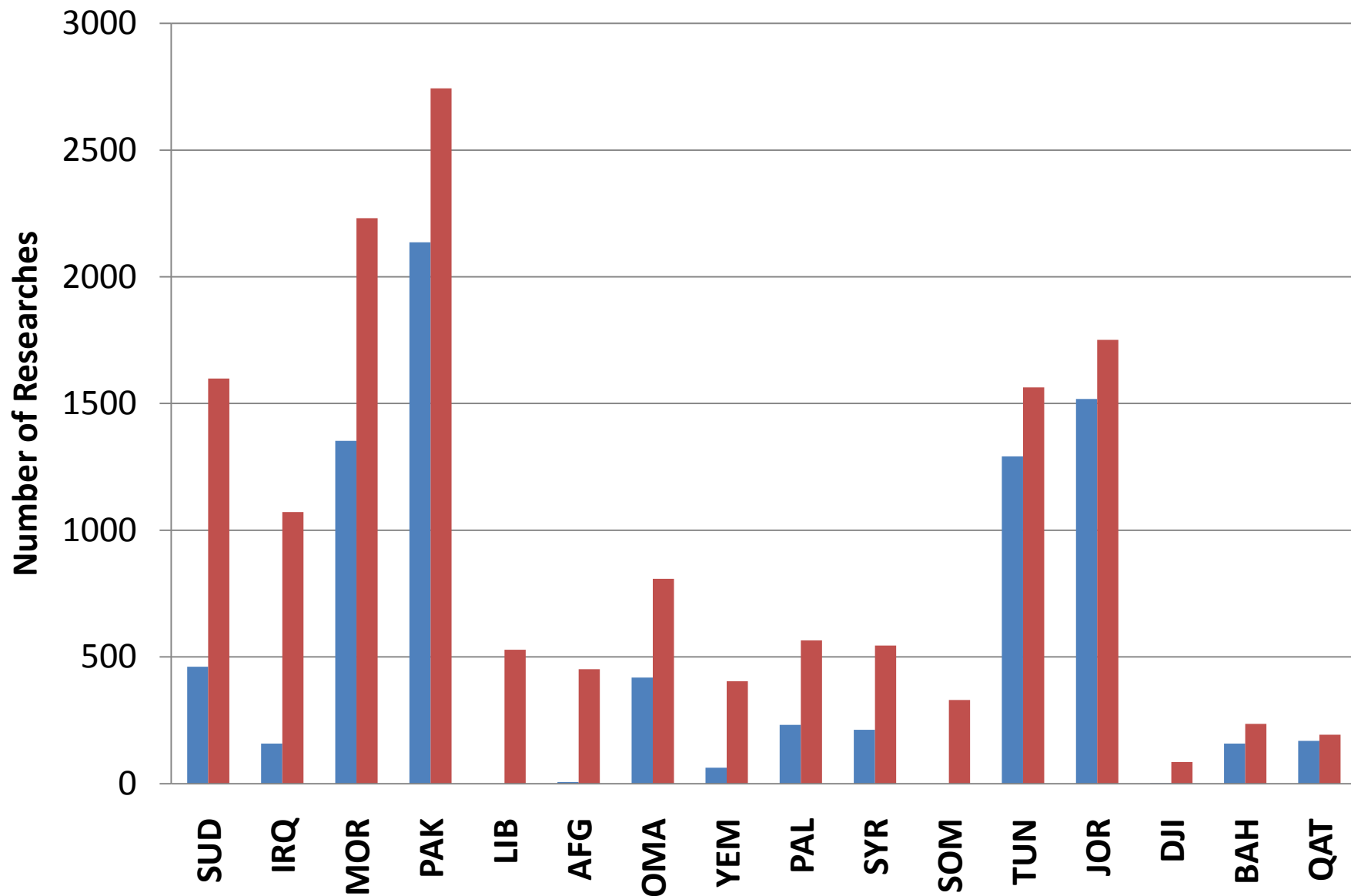
# Environmental Research in the EMR



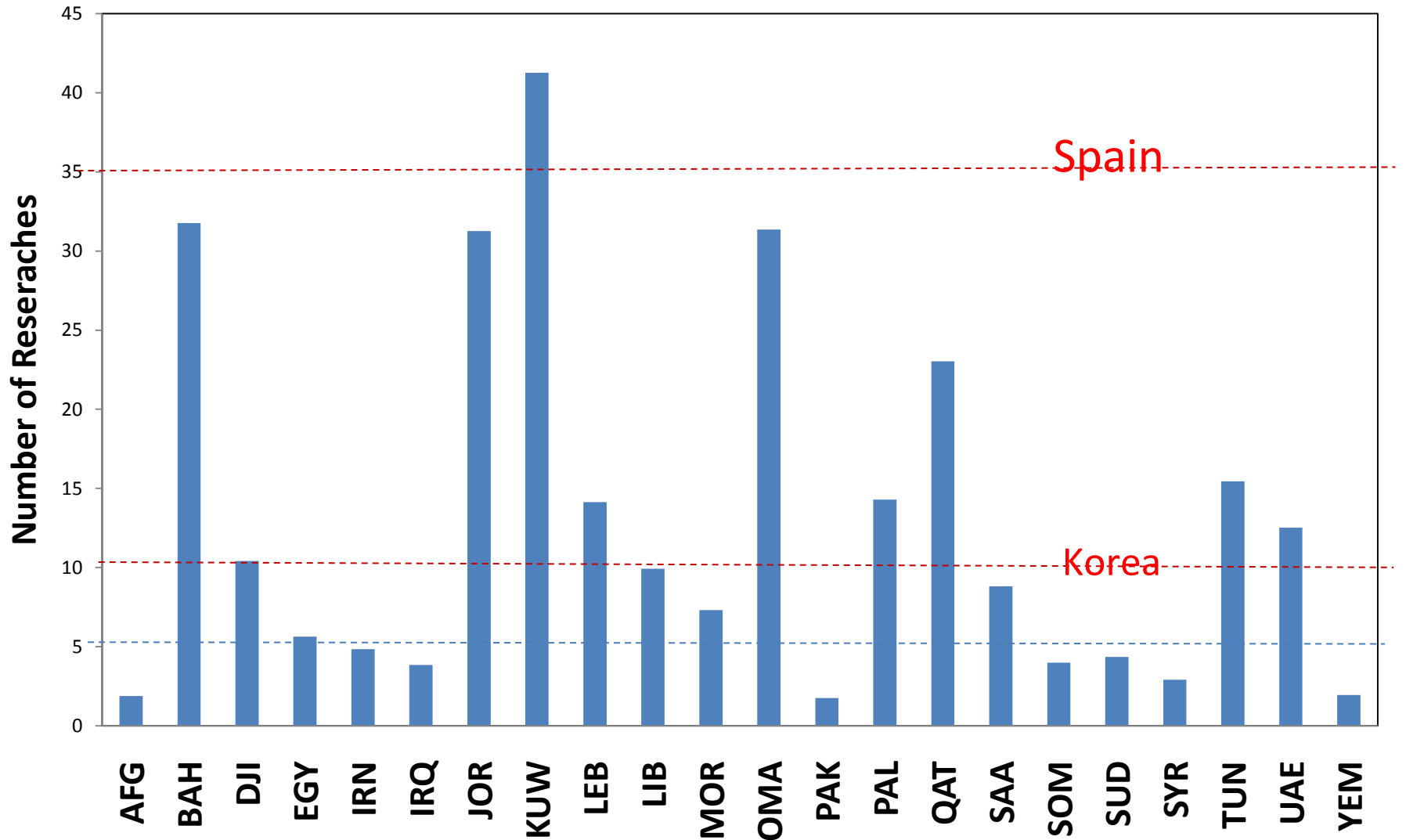
# Environmental Research Exporters



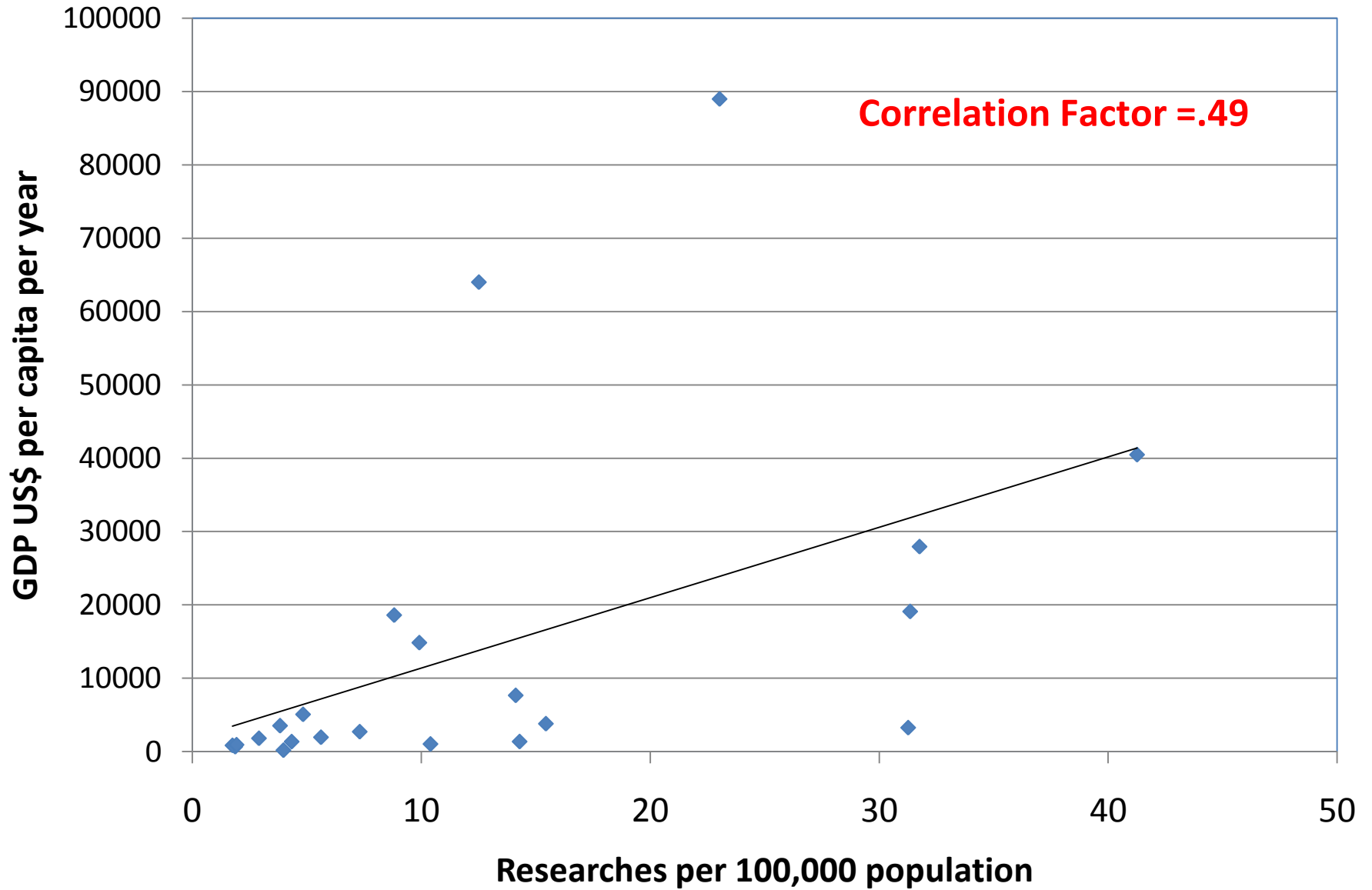
# Environmental Research Importers



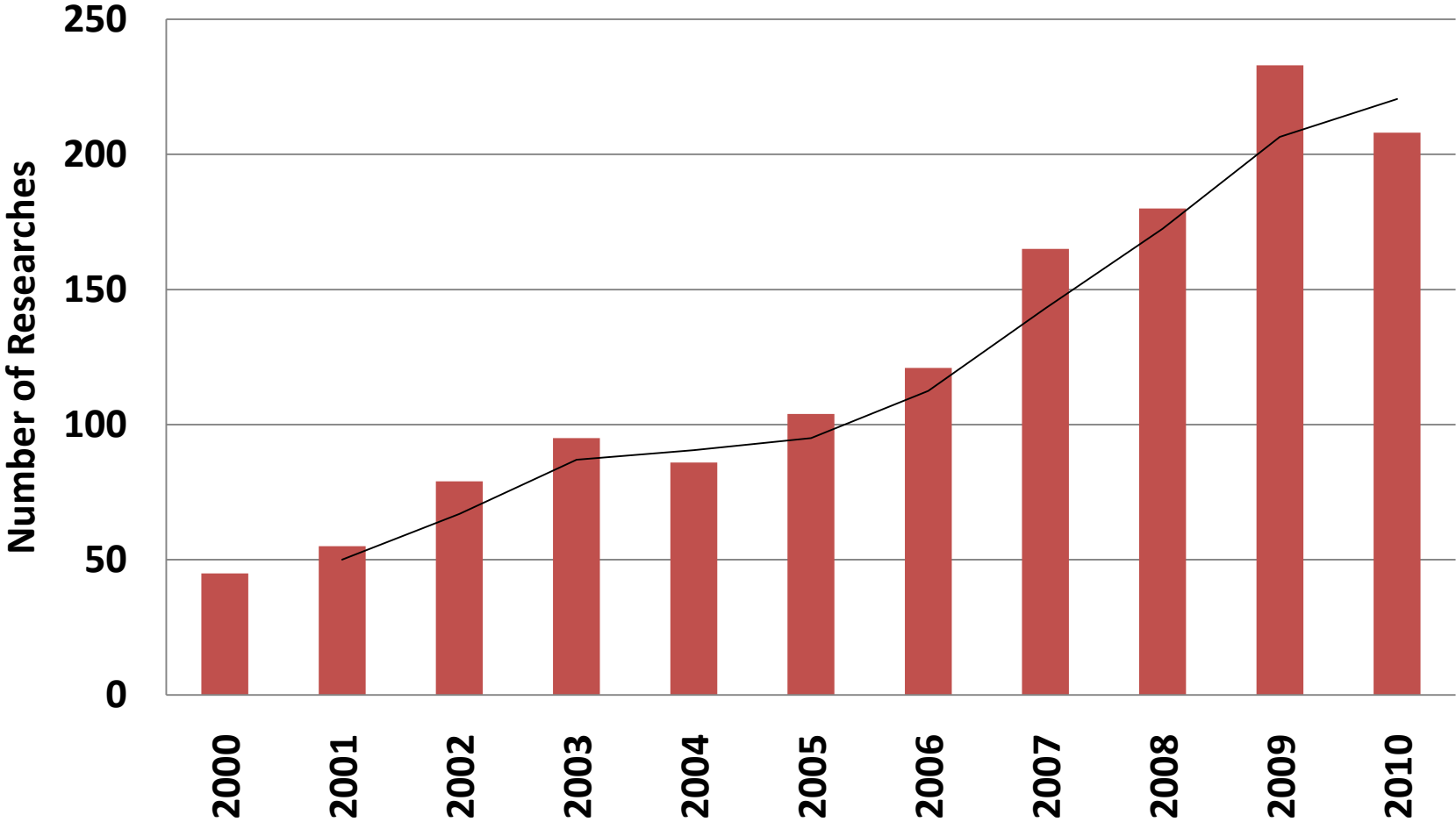
# Environmental Research per 100,000 Population



# Environmental Research and GDP



# Environment and Public Health Research Trend



# Environmental Research: Collaboration

- 0.5 % of the environmental research is imported from outside the region.
- 11.2 % of the environmental research is covering more than 1 country of the Region(***There is a room for more collaboration***)

<b>Language</b>	<b>Researches</b>	<b>%</b>
<b>English</b>	<b>1340</b>	<b>96.54%</b>
<b>French</b>	<b>18</b>	<b>1.30%</b>
<b>Persian</b>	<b>18</b>	<b>1.30%</b>
<b>Arabic</b>	<b>7</b>	<b>0.50%</b>
<b>Spanish</b>	<b>2</b>	<b>0.14%</b>
<b>German</b>	<b>1</b>	<b>0.07%</b>
<b>Polish</b>	<b>1</b>	<b>0.07%</b>
<b>Slovene</b>	<b>1</b>	<b>0.07%</b>

# EMR Research Priorities 2000-10

Subject	%
Environmental Monitoring	35%
Water Related Issues	22.8%
Wastes Related	7.7
Air Related Issues	9
Chemicals	6.8
Workplace Environment	6.8
Radiation Hazards	3.9
Risk Assessment	3.7



# Conclusions

3<sup>rd</sup> e-Health Conference in the Middle East

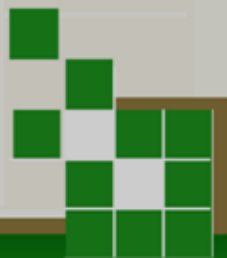
Excellence in Healthcare: From Global Perspectives to Local Opportunities

- **EH Research is poor in the Region.** The 22 countries of the EM Region are producing one sixth of what Spain produces, or one third of what S. Korea produces.
- **EH Research is moderately correlated with GDP.**
- **Research is being done in English mainly**
- **Interest in EH research is recent.** About 50% of the research was done in the last 10 years





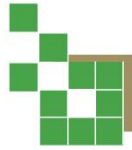
- **The health sector is closer to environmental health than the environmental sector is.**
  - 17% of Health Research is related to Environment while only 5% of the Environmental Research is related to Health.
  - 15.3 researches per 100,000 population are coming from the health sector while only 5 are coming from the environment sectors





- **Health sector is exporting research outside the region, while the environment sector is self sufficient on average.**
- **10% of the EH research is being done jointly with the participation of more than one EM country (there is a big room for more collaboration)**





## CME/CPD Questions

1. Which sector is closer to environmental health issues in the Region? Environment or Health
2. Name two environmental health priorities that are receiving the attention of researchers in the Region
3. Name one environmental health issue that is ignored by researchers in the Region

