

Research policy in Arab countries:  
international cooperation,  
competitive calls, and career  
incentives

Rigas Arvanitis

Sari Hanafi

Bruce Currie-Alder

# Roles of agencies

- Define national policy for research
- Coordinate between different research institutions
- Manage research centres performing research
- Manage the status of the research activity inside higher education institutions
- Manage programmes and specific funds
- Select and manage funding of scholarships to students and researchers
- Support publishing of scientific journals and publications
- Promote valorisation (technology transfer) of research performed in scientific institutions
- Evaluate the effects of policies
- Collect statistics on research
- Diffusion of scientific culture

# Funding by Agencies

Country	Fund	%GERD/Amounts
Egypt	STDF	1.8% - US\$ 14 millions
Egypt	RDI	US\$ 6 millions
Jordan	SRSF	JD 4 millions
Lebanon	CNRS-GRP	US\$ 1.1 millions
Qatar	QNRF	US\$ 180 millions
Morocco	FNRSDT	1.76% (between 300 and 500 millions Dhs =26-44 millions €)
Tunisia	Federative projects	€ 1 million
All Arab countries	Arab Council for the Social Sciences	Total budget of ACSS is less than US\$ 2 millions

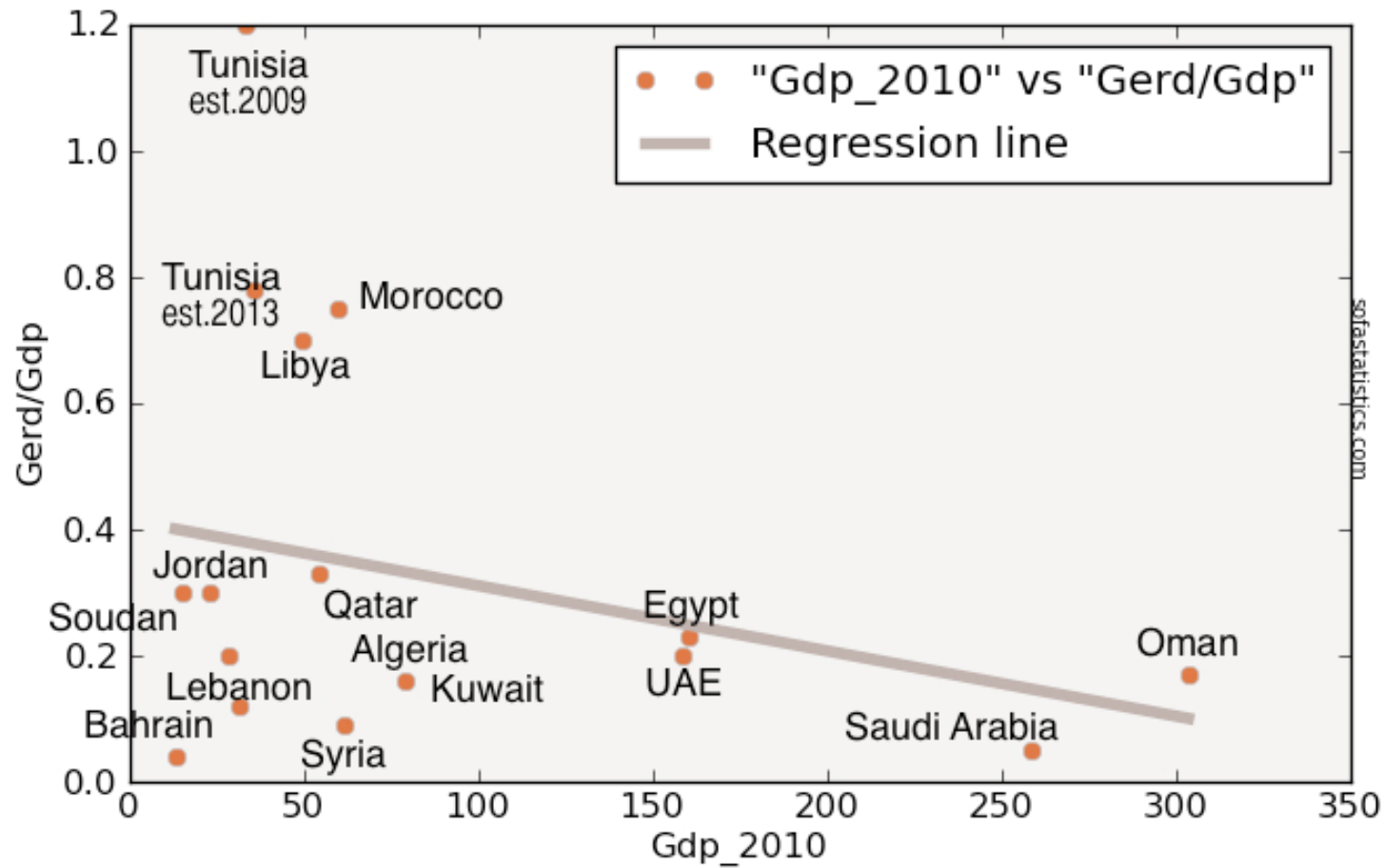
- France (French National Agency for Research (ANR) = 2% of GERD & GERD i= 2.24% of GDP (40 billions €)
- USA : NSF = US\$ 7 billions represents 1.63% of the US GERD (GERD is 2.85% of GDP ).

# Under-investment

- Annual share per Arab citizen of expenditure on scientific research does not exceed US\$ 10
- Malaysia per citizen annual share of US\$ 33.
- “Rich” small European :
  - Ireland = US\$ 575
  - Finland = US\$ 1,304

(UNDP, 2009, p. 193).

# GRD/GDP : no match



# Research population : lower than expatriates

Countries	Countries	Nb Research ers (2007)	Research ers per 1 million inhabita nts	FTE per million populati on	Expatriate s with high skilss (approxim ation)	per million
Egypt						17
Algeria						70
Morocco						47
Tunisia	Egypt	33 481	420	617	140 000	588
Kuwait	Algeria	5 764	170	170	213 000	56
Qatar	Morocc	17 516	166	647	200 000	54
Saudi Ar o						
UAE	Tunisia	25 445	492	1 588	66 000	16
Jordan	Kuwait	158	152	166	17 000	52
Lebanon	Qatar	105	42	464	1 400	78
	Saudi	716	41		12 000	

## Low research population and high number of highly skilled expatriates

<b>Countries</b>	<b>Nb Researchers (2007)</b>	<b>Researchers per 1 million inhabitants</b>	<b>FTE million population</b>	<b>per</b>	<b>Expatriates with high skills (approximation)</b>
Egypt	33 481	420	617		140 000
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Qatar	105	42	464		1 400
Saudi Arabia	716	41			12 000
UAE	3 500	3314	116		3 500
Jordan	42 151	280	1 952		280 000
Lebanon	13 316	200	178		17 000

# Institutional models : Centralized

Country	"Plan"/ST Doc	Ministry/Council	Funding Agency	Other funding	Governance	GERD/GDP (%)
Algeria	Yes (Nat.Plan, 1998)	Yes		Nat Res progs + National Fund RTD +	Centralized	0.25
Morocco	Yes (Vision 2006)	Dept of a larger minister (since 2004)	CNRST	Various Funds to support innovation: PTI, Incubators	Centralized	0.8
Tunisia	Yes (5 <sup>th</sup> Plan and following Plans since 1977)	Yes	Nat Sc Res Foundation (since 1989)	Various Funds to support innovation: FRP, NPRI, PTI, Techparks	Centralized	1.0 / 0.8
Egypt	No	Yes / Formerly Academy of science	STDF and other funds	Initiatives from various Ministries: Agri, Indus, Telecom, etc.	Centralized	0.2
Saudi Arabia		Ministry of Education / KACST	KACST since 1977		Centralized	0.14

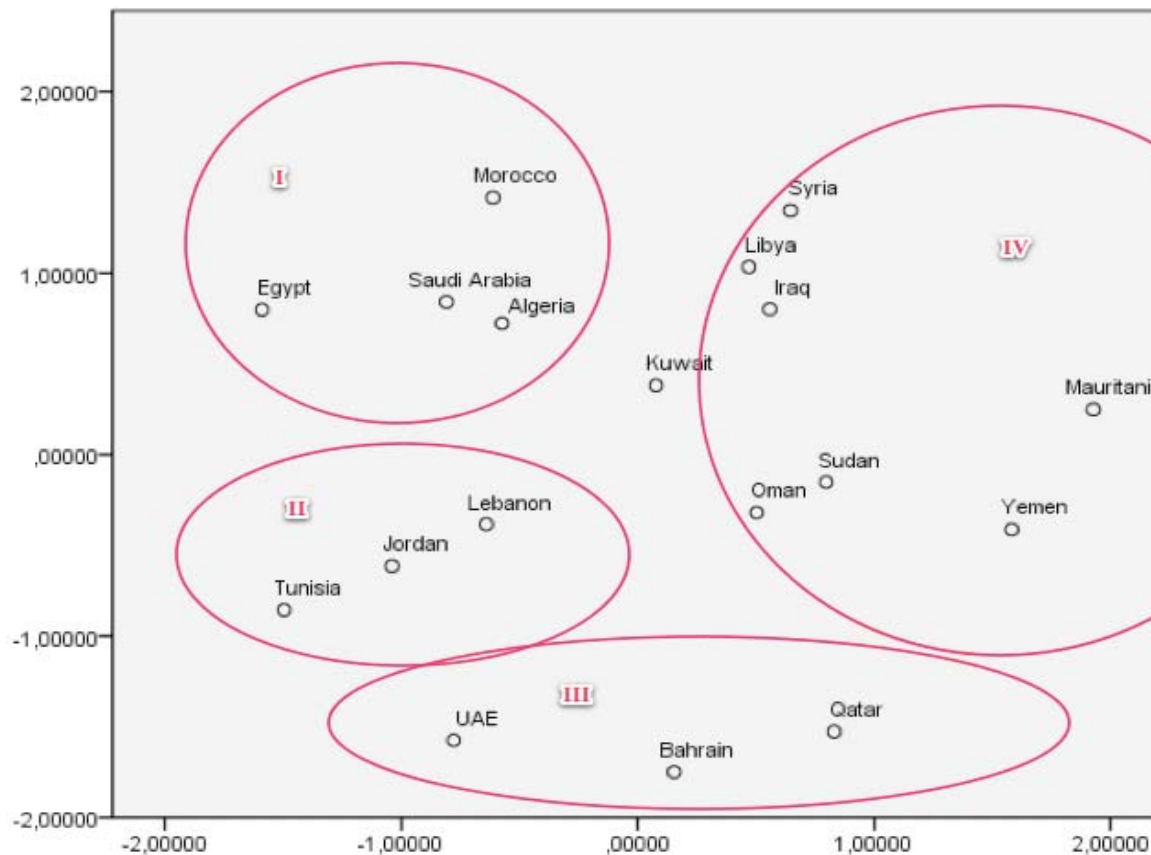


# Institutional models : Decentralized

Country	"Plan"/ST Doc	Ministry/Council	Funding Agency	Other funding	Governance	GERD/GDP (%)
Lebanon	Yes STIP = Vision (2006)	CNRS (council)	CNRS Since 1962	Performers get contracts from all sorts of sponsors	De-centralized	0.22
Jordan	No	HCST (council)	HCST since 1987	Performers get contracts from all sorts of sponsors	De-centralized	0.34
Bahrain	–	Higher Education Council	BCSR (acting as agency)		Trade oriented	0.04
Oman	–	The Research Council	OCIPE Invest Promo 2002	Sponsors	Trade oriented	0.07
Emirates	–	Institutional research and strategic planning (committees)		Sponsors	Trade oriented	0.2
Qatar	–	-	Qatar Foundation	Sponsors	Trade oriented	0.6
Kuwait	–	Min High Edu and Sc Res	KFAS Funding and coord since 1988	Sponsors	Trade oriented	0.2

# Types of models

	Main characteristics	Countries
I	Large, centralized and dynamic research systems	Egypt, Morocco, Saudi Arabia , (Algeria)
IV	Large, centralized and low-performing research systems	Iraq, Libya, Sudan, Syria
II	Small, dynamic research systems	Tunisia, Lebanon, Jordan, Kuwait
III	Small, flexible and market-oriented research systems	Qatar, United Arab Emirates



A policy framework  
centred around the  
State

Dynamic vs non-dynamic

# Foreign support

- Array of funding sources
- European Union (2007-2013) :
  - Egypt RDI (co-funding) : €11 million in 2007 & € 20 million in 2010
  - Tunisia : € 12 million
  - Jordan : €5 million
  - Algeria : € 38.6 million programmes , co-funded by the EU for €21.5 million
  - Morocco (twinning €1.3 million)
  - Various “Erasmus mundus” scholarships and TEMPUS projects
- We estimate that the EU has spent the non-negligible amount of €300 million in the period 2007–2013.

# Changing the system

- Funding by calls (all except Tunisia)
- Labelling teams (Tunisia)
- Evaluation of research (Morocco)
- Budgeting (Morocco – 2000)
- Academics promotion
- Innovation-related activities
- Relation to societal challenges: connection to partners outside research
- Autonomous (if not “free”)

# Connecting difficulties

- Social needs not taken in consideration
- Social pressure on university system
- Economic system does not fund entrepreneurs
- Social sciences not considered as important
- Innovation ('network paradigm')
  - Technoparks & incubators (Tunisia /Egypt / Lebanon)
  - Innovation hubs
  - (Paradox of innovation: low level of support and rather important activity)

## Issues : Relevance and Internationalization

- Weak institutionalisation of research
- Fragmentation
- No Social sciences (but see ACSS)
- Promotion system based on foreign publications : publish locally and die globally vs publish globally and die locally.

- Thank you

