

## Research funding in Arab countries

*Insights emerging from a forum of research funders held in Cairo in December 2014.*

Across the Middle East and North Africa, Arabic-speaking countries have modified their policy framework in order to participate in new opportunities for international cooperation, particularly with Europe. From Morocco to Qatar, countries have identified national research priorities and introduced changes in how to access public funding. Whereas past allocation systems were based on block funding to universities and public research organizations, current systems are based on competitive calls to allocate to discrete research projects or units within such institutions. Within this general trend, there are distinctions between Maghreb and Mashriq countries, owing in part to the legacy of how the research community is organized, stemming from the relative influence of French and Anglophone approach to research governance.

Despite recent reforms and a move towards calls for proposals, research-funding frameworks in the region exercise a limited influence on the daily behavior within research performing organizations. Researchers are guided more by the performance expectations within the organizations that hire them and opportunities to enhance their professional reputation. Policy frameworks and career incentives presently privilege questions identified by the scientific literature, and provide little motivation to researchers to address issues raised by industry or society, including the demands given voice through the Arab uprisings.

### Expected results

Research governing bodies are evolving, restructuring funding flows to both facilitate international cooperation and rally research effort to focus on national priorities, such as energy, ICTs, food, and health. Some funders experience tension over definition of these priorities with the line ministries responsible. Policy and funding focus predominantly on natural sciences, including applications in agricultural, energy, and medical sciences.

Policy frameworks emphasize the instrumental value of research, its use in transforming physical inputs to product goods & services. There is relatively less attention to the conceptual value of research, generating concepts and theories for improving how society understands social, economic, and political phenomena. A few initiatives were established after 2011 to address this niche, including the *Arab Council for Social Science* and the *Arab Center for Research and Policy Studies* (Doha institute). There was also growth in the number of ‘think tank’ entities that seek to deepen certain worldviews, including research entities related to political parties or dedicated to Islamic thought.

Policy frameworks seek to rally knowledge to national priorities and build local expertise on these topics. The dual aims are to encourage the national research community to participate in global science and to enlarge that community through training and mobility of highly-qualified personnel. Policy intent responds to Jon Adams (2013) caution that “institutions that do not form international collaboration risk progressive disenfranchisement and countries that do not nurture their talent will lose it to other countries”. Scant attention to the comparative advantage of national research community compared to world.

Compared to the context of western countries, Arab governments face and exert little pressure to get “more” out of public spending. Policy frameworks and research funders have expressed interest in

connecting research with industrial application and/or addressing social needs; yet this desire remains largely rhetoric with little in the way of mechanisms to encourage such behavior. Policy frameworks offer an indirect promise of employment and informing policy, with the countries placing varying levels of emphasis on generating spin-offs for entrepreneurs and small & medium-sized enterprises (SMEs).

All countries in the region adopted measures to operationalize a growing array of bilateral cooperation agreements and mechanisms. For example, support from the European Union helped establish a network of contact points within the science ministry and at universities to disseminate funding opportunities. A number of Arab countries entered into joint calls, matching funds with science-leading countries to encourage nationals to collaborate with counterparts in Europe and North America. This interest is now expanding toward connecting with China, Asia and Africa.

Based on an array of bilateral agreements, policy frameworks privileges connections with science-leading countries outside the region, largely bypassing neighboring Arab countries. Funding opportunities remain tied to national eligibility: the majority of monies offered by Arab countries is restricted to their nationals and/or activities within their country. Grants are more likely to favor collaboration with European or US counterparts than with other Arab countries, despite similarity in priorities, context, and language.

### **Toward competitive calls**

Research-governing organizations have established granting councils or research funds to mount competitive calls for proposals, resulting in grants to research projects (problem-based) or units (team-based, 6-20 scientists). The latter more prominent in countries tied to the institutional landscape in France, including Maghreb and Lebanon. Many funding competitions are mounted in cooperation with bilateral partners abroad or with domestic corporations and foundations (e.g. OCP and Lalla Salem in Morocco). Yet the scale of funding offered is most often a political product of the resources available in the national budget. Decisions on the science budget or the size of individual calls are seldom based on critical analysis of: what is required to advance a particular topic, promising ways of organizing research, absorptive capacity of the existing community, or a sense of what constitutes a 'critical mass' and why it might be needed.

Staff within funding organizations invest time in organizing calls for proposals and run merit reviews. Proposals tend to be assessed externally, by peer review based on the criteria of academic quality and potential for publications. An implicit aim of using such competitive calls is to bypass bureaucracy within government ministries and public universities in the decision over what and to whom to allocate funds. After peer review, the grant making process meets a bottleneck in contracting, as funders negotiate with host institutions on terms, define deliverables and timelines, and transfer the funds. Intellectual property is particularly contentious, including issues of ownership, licenses, and use.

Policy frameworks and funders have emphasized *ex ante* priority setting or identifying the areas of knowledge sought, with relatively little attention to *ex post* evaluation or how the research community performs under a particular program or policy direction. As funders gain experience, some are moving beyond organizing calls and selection processes, to place greater attention on monitoring recipients, including the progress towards research objectives and how effectively grant monies are used. Yet research funders have few opportunities to conduct site visits to see how funds are used, and when they site visit do occur recipients are likely to perceive it with suspicion or as a punitive measure.

While growing over the past decade, the size of research funding offered by Arab funders remains fairly modest. Rather than compete in national calls, Arab researchers just as likely to rely on modest intramural funding within their hiring organizations, or on funding from foreign counterparts obtained from sources abroad (e.g. domestic granting councils in the counterpart's country, such as Germany, France, and the United Kingdom). Horizon 2020 and the growing array of bilateral competitive calls do attract attention and match funding in both Arab and science-leading countries, yet the requirements involved place a high entry barrier for Arab researchers without experience in grant writing or without preexisting ties to potential collaborators abroad.

Pervasive gaps remain in the skills needed to prepare grant proposals: to define research objectives, timelines, milestones and budgets. Beyond such weakness among individual researchers, recipient organization also have limited capacity to administer grants: to negotiate contracts, and to receive, manage & account for project or unit-specific funds. Funders are trying to address this gap through training and workshops, mentoring in how to do research networking, inventories of scientific infrastructure within the country to encourage sharing among organizations (e.g. Lebanon's IDEAL project to improve research administration).

### **Incentives for doing research**

Individual researchers face various incentives beyond the policy framework of granting councils or research funds within ministries and foundations. A key influence is the performance expectations within the organizations that hire researchers. Some simply require 'just enough' for their staff to retain standing within the organization or the national research community, while others require staff to move 'up or out' achieving progressively higher levels of professional reputation and greater numbers of publications in internationally prestigious journals. Evidence from interviews confirms that researchers also motivated (or distracted) by opportunities for commissioned research and consulting work for government, donors and industry to generate privately-owned outputs that tends to be less accessible to scientific community at large.

There was substantial growth in the production of research in Arab countries over past two decades. Yet this production remains fragmented, characterized by silos between disciplines and organizations. There are few incentives for integrated, problem-solving research that draw on multiple disciplines: one can find expertise in soil science or agronomy, yet efforts on food security and climate adaptation remain scarce (e.g. connecting changes in farm-level production, to how the market mediates access to food, and the ultimate health outcomes in the human population). Disciplinary divides are compounded by barriers to mobility across organizations, such as universities hiring practices that research teaching positions to former graduates of the same faculty.

Beyond the lack of multidisciplinary research, there is fragmentation in research activities: academics avoid engaging in public debate or policy advice, giving rise to parallel and isolated discussions on the status of the natural world & society, how the world & society work, and the relative merits of different policy options. Research is largely failing to raise public awareness or inform practitioners regarding the issues facing society and the options for responding to them. As mentioned above, research tends to be valued for its instrumental use. Within the Maghreb it tends to stay within academia, while within the

Mashriq there is more engagement with external stakeholders. Burawoy's typology (2011) illustrates these differences, with Maghreb on the left and Arab East on the right.



While the policy framework attempts to create a more conducive environment for the natural sciences and the instrumental value of research, there is less attention to the social sciences and the conceptual value of research (cf Burawoy 2011). This lack of attention further discourages a critical social science, which already faces numerous constraints such as the permission required by national security authorities prior to conducting surveys in Egypt and Jordan. Despite the historic demands expressed by the people in Arab countries, policy frameworks have not integrated an explicit agenda on social justice or poverty reduction. Social sciences and humanities are largely ignored as policy and funding focus predominantly on natural sciences, engineering, and health (the so-called STEM disciplines). Scant attention is paid to the potential for research to address underserved places and topics, such as the development needs of rural areas or to tackle taboo subject such as gender-based violence.

Funders have exerted a limited influence upon the incentives that shape research careers in the Arab world. The key motivation for researchers remains acquiring a professional reputation through peer-reviewed publication in international journals and conferences. This dominant incentive aligns with the policy intent of getting national scientists plugged into networks of global science and scholarship, but can clash with efforts to focus research efforts on local phenomenon considered to parochial for international audiences (cf Hanafi 2011).

#### Further Reading:

Adams, J. (2013) The fourth age of research. *Nature* 497: 557-560

Burawoy, M. (2011) Redefining the public university. Social Science Research Council blog on August 5<sup>th</sup>

Hanafi, S. (2011) University systems in the Arab East. *Current Sociology* 59(3): 291-309

Hanafi, S. and R. Arvanitis (2016) *Knowledge production in the Arab World*. Routledge