

Distr.
LIMITED
E/ESCWA/EDID/2018/TP.4
1 August 2018
ORIGINAL: ENGLISH

Economic and Social Commission for Western Asia (ESCWA)

**Economic Development and Integration Division
Economic Governance and Planning Section**

Improving Arab Regional Development Planning: An Assessment of Good Economic Governance Tools to Support Science, Technology, and Innovation Policy-Making

Peter Speelman and Denise Sumpf



United Nations
Beirut, 2018

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18-00309

Executive Summary

The adoption of the 2030 Agenda and the sustainable Development Goals (SDGs), re-emphasised the importance of governance as a critical ingredient to and precursor of development. As a contribution to the debate on how to improve economic governance especially, this paper draws the focus away from policy recommendations that concentrate on good governance outcomes and emphasizes on the need to improve the quality of policy-making processes themselves and of the institutions involved. To illustrate the application of the principles drawn from global administrative law (GAL), the paper looks at policy processes to address challenges in the field of science, technology, and innovation (STI), as it is a crucial enabler of economic development. The paper applies the governance discussion to regional STI policy planning, a subset of economic development policy that is of concern to the Arab region (See the thematic focus during the Commission Session of the United Nations Economic Commission for Western Asia from 25 to 28 June 2018 in Beirut).

The paper begins with a brief overview on economic development challenges and opportunities in the Arab region. One of the greatest challenges remains the unemployment rate, specifically among youth and among women. The paper explains how an effective STI policy has the capacity to contribute to improve the issue and outlines the importance of STI policies and of current approaches to regional agenda-setting and collaboration to meet these challenges. Good STI policy can boost economic growth by investing in human capital through quality and relevant education, supporting and providing infrastructure for research and development, and fostering high-tech industry and SMEs, among other interventions. Thus, it supports the Arab region towards taking full advantage of the “Fourth Industrial Revolution,” and towards narrowing the education-labor demand gap. Given the interconnected nature of the global economy and the scale of the challenges, regional cooperation in this regard is imperative.

To figure out how good STI policies come about, the paper subsequently introduces the analytical framework of GAL, as a tool to give greater definition to the concept of governance, and to analyze policy-making processes. While the connection between governance and development is already well established in existing literature, this paper provides additional substance to how good governance principles need to be pursued consistently throughout an economic policy-making process. Specifically, the paper outlines how the administrative-law standards of transparency, participation, reason-giving, and effective review can be used as mechanisms of accountability to improve policy-making and implementation processes.

The paper surveys in greater depth a selection of existing international and regional development policies concerning STI and reviews the process of policy adoption before applying the modes of accountability drawn from the field of administrative law in order to identify examples of good practice and highlight priority areas. In conclusions and based on the exemplary application to STI, the paper recommends the incorporation of administrative-law accountability standards to improve economic development policy-making, with the ultimate purpose of achieving regional economic development objectives and meeting SDG targets.

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List of Abbreviations

AFSD	Arab Forum for Sustainable Development
AMU	Arab Maghreb Union
ASDIF	Arab Sustainable Development Indicator Framework
ASDR	Arab Sustainable Development Report
ASEAN	Association of Southeast Asian Nations
ASFSD	Arab Strategic Framework for Sustainable Development
CAMRE	Council of Arab Ministers Responsible for the Environment
ECOSOC	United Nations Economic and Social Council
EU	European Union
FDI	Foreign Direct Investment
GAL	Global Administrative Law
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GII	Global Innovation Index
GO-SPIN	Global Observatory of Science, Technology and Innovation Policy Instruments
HLPF	High-Level Political Forum
IAEG-SDGs	United Nations Inter-Agency Expert Group on SDGs
ILP	Inter-Academy Partnership
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
JCEDAR	Joint Committee for Environment and Development in the Arab World
MDG	Millennium Development Goal
NSO	National Statistics Office
OECD	Organization for Economic Cooperation and Development
PRIME-SD	Peer Review Improvement through Mutual Exchange on Sustainable Development
RCM	Regional Coordination Mechanism
SDG	Sustainable Development Goal
SDIAR	Sustainable Development Initiative in the Arab Region
SMEs	Small- and Medium-sized Enterprises
STEM	Science, Technology, Engineering, and Mathematics
STI	Science, Technology, and Innovation
TDD	Technology for Development Division
TMF	Technology Facilitation Mechanism
UN	United Nations
UNCTAD	United Nations Commission on Science and Technology for Development
UNDESA	United Nations Department of Economic and Social Affairs
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNESCWA	United Nations Economic and Social Commission for Western Asia
VNR	Voluntary National Review
WTO	World Trade Organization

I. Introduction: Research Question and Methodology

Economic development is well established as one of the three main dimensions of sustainable development.¹ The 2015 adoption of Agenda 2030 – and the Sustainable Development Goals (SDGs) as the agenda’s framework for practical implementation – have generated significant momentum, renewing global efforts towards economic development and revitalizing discussions around necessary ingredients of a successful economic development policy.² Key to the discussion has been a growing emphasis on the concept of economic governance – a shift in focus from specific policy prescriptions to policy-making processes and institutions.³ At the global level this has been reflected by the United Nations (UN) in General Assembly Resolution 67/289 (“The United Nations in Global Economic Governance”)⁴ and the related Report of the Secretary General A/67/769, (“Global Economic Governance and Development.”)⁵ In the Arab region, forums such as the High-Level Conference on Financing for Development and the Means of Implementation of the 2030 Agenda for Sustainable Development (the “Doha Messages”) in November 2017,⁶ and the Arab Forum for Sustainable Development (AFSD) in April 2018 also took note.⁷

The Secretary General’s Report and General Assembly Resolution have stressed the need to better integrate regional policy instruments within the broader framework of global economic governance, emphasizing the role of regional commissions, such as the United Nations Economic and Social Commission for Western Asia (UNESCWA), in this process. Work has already begun, with a review of regional mechanisms feeding into a report by the Secretary General on repositioning the UN system to deliver on the 2030 agenda. This report emphasizes the role of regional commissions in actualizing the SDGs, and proposes a two-step plan: first, to optimize existing regional arrangements, including clarifying divisions of labor, aligning regional efforts, and re-profiling; and second, to develop medium and long-term proposals for restructuring.⁸

Addressing economic development and governance specifically, the Secretary General’s report on global economic governance stresses the importance of global and regional cooperation on finance, debt, technology transfer, innovation, entrepreneurship, capacity-building, transparency, and accountability.⁹ Many of these foci can broadly be differentiated between 1) process-orientation, i.e. governance requirements (transparency and accountability), and 2) content-prioritization, i.e. on “Science, Technology and Innovation” (STI) policies, or policies designed to foster technological development and education, as well as innovation and entrepreneurship to productively adopt new technologies. As recognized in the report, the elements of

¹ United Nations, General Assembly Resolution 68/1, Review of the Implementation of General Assembly Resolution 61/16 on the Strengthening of the Economic and Social Council (2013) pg 1 (recognizing the role of ECOSOC in achieving balanced integration of these three dimensions).

² In particular Goal 8 (Decent Work and Economic Growth), Goal 1 (No Poverty), Goal 9 (Industry, Innovation, and Infrastructure), and Goal 12 (Responsible Consumption and Production), all requiring long-term and holistic economic development.

³ See, e.g., United Nations, General Assembly Resolution 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development (2015) para 44 (acknowledging the importance of international financial institutions supporting the “policy space” of developing countries); para 63 (calling for “enhanced global economic governance” to support national development efforts).

⁴ United Nations, General Assembly Resolution 67/289, The United Nations in Global Economic Governance (2013) paras x, 17.

⁵ United Nations, Report of the Secretary General, Global Economic Governance and Development (A/67/769, 2013) para 8.

⁶ United Nations, High-Level Conference on Financing for Development and Means of Implementation of the 2030 Agenda for Sustainable Development: Doha Messages (November 2017) [hereinafter Doha Messages] point 4.

⁷ United Nations, Draft Key Messages from the 2018 Arab Forum for Sustainable Development (May 2018) (on file with author) [hereinafter 2018 AFSD Key Messages] pg 4.

⁸ United Nations, Report of the Secretary General, Repositioning the United Nations Development System to Deliver on the 2030 Agenda: Our Promise for Dignity, Prosperity and Peace on a Healthy Planet (A/72/684-E/2018/7) paras 87, 96.

⁹ General Assembly Resolution 67/289, *supra* note 4, at para 17; Report of the Secretary General, *supra* note 5, at para 24 (recalling the “future we want” resolution, in which governments “stressed the critical importance in the areas of finance, debt, trade and technology transfer, as well as innovation, entrepreneurship, capacity-building, transparency and accountability”). See also United Nations, General Assembly Resolution 66/288, The Future We Want (2012) para 19.

an STI policy are essential enablers of economic development, making STI policy an important aspect of overall economic governance.

Specifically tailored to the requirements of the Arab region, the key messages from the 2017 High-Level Conference (the “Doha Messages”) followed the same logic and encouraged investment in improving policy-making and -monitoring capacities and institutions, also stressing the importance of technology transfer mechanisms to create net positive outcomes in the region.¹⁰ Discussants at the 2018 AFSD further emphasized the need for economic policy reform and development, and for regional cooperation on promoting science, technology, innovation, and entrepreneurship, noting the need for Arab countries to diversify their economies and position the region to take advantage of global economic transformations.¹¹ In order to seize on these initiatives, greater attention must be paid to the quality and scope of the policy-making process and behaviours of policy-makers – who are the pen-holder, and who are responsible for implementation and review.

The present paper will look in greater depth at the existing regional economic governance structure in the Arab region. Limiting the focus to economic governance, the paper will avoid detailed exploration of specific policy prescriptions, focusing instead on the process of policy development and implementation. Understanding STI as a crucial enabler of economic development, the paper will apply the governance discussion to regional STI policy planning, a subset of economic development policy of particular concern to the Arab region. As a basis for discussion, Part II provides an overview of economic development challenges and opportunities in the Arab region, further explaining the importance of STI policies and of current approaches to regional agenda-setting and collaboration to meet these challenges. Part III will introduce the analytical framework of global administrative law as a tool to give greater definition to the concept of governance and to analyze policy-making processes. While the connection between governance and development is already well established in existing literature, this paper will provide additional substance to how good governance principles need to be pursued in economic policy-making, specifically outlining how the administrative-law standards of transparency, participation, reason-giving, and effective review can be used as specific mechanisms of accountability to improve policy-making and implementation processes. Part IV will give a brief introduction to Arab regional STI policy planning, and will apply the analytical framework of global administrative law to exemplify good governance practices and areas for improvement. Part V will conclude, providing a series of recommendations to improve policy-making, implementation, and uptake.

II. Economic Development Challenges and STI

a. Challenges and Opportunities

The challenges the Arab region faces in terms of economic development are manifold and inter-related. Significant issues in the region include: 1) a persistently high unemployment rate, exacerbated by reliance on public-sector employment; 2) low productivity, characterized by non-competitive private sectors and an over-reliance on resource-extraction and external windfalls as economic drivers; and 3) insufficient levels of investment, affected by instability. As these challenges feed into one another and have regional dimensions, they cannot be addressed without regional cooperation. Arguably the most significant economic issue in the Arab region remains the unemployment rate, the highest of any region in the world.¹² The unemployment rate is particularly high among youth; youth unemployment has been nearly twice that of other regions since the 1990s.¹³ This is partly due to a youth bulge – the Arab population more than doubled

¹⁰ Doha Messages, *supra* note 6, points 4, 7.

¹¹ 2018 AFSD Key Messages, *supra* note 7, at pgs 4, 5, 8.

¹² United Nations Economic and Social Commission for Western Asia, Arab Sustainable Development Report (E/ESCWA/SDPD/2015/3) [hereinafter Arab Sustainable Development Report] pg 20.

¹³ United Nations Development Programme, Arab Human Development Report 2016: Youth and the Prospects for Human Development in a Changing Reality (2016) [hereinafter 2016 Arab Human Development Report] pg 80.

between 1980 and 2015; just over half of the population is between the ages of 0-24.¹⁴ It is also due, however, to the inability of Arab economies to absorb and take advantage of this available labor. This inability is attributable to a number of factors, including a mismatch between education supply and labor demand, the reliance of Arab economies on non-labor-intensive sectors, and a disproportionately large and uncompetitive public sector. Despite gains in enrollment, education in the Arab region still lags in terms of quality, and there remains a gap in vocational training to meet needs for entrepreneurship and skills requirements in the private sector.¹⁵ Gains from completing secondary and tertiary education have also dwindled, reflecting growing disenchantment among youth with the disconnect between higher education and productive employment.¹⁶ In the Middle East and North Africa, higher levels of education have been insufficient to secure employment, resulting in the phenomenon of “educated unemployment.”¹⁷

In addition to educational challenges, a reliance on public-sector employment in Arab economies has meant a failure to generate sufficient private-sector job growth. Governments are often Arab States’ primary employers, accounting for 14-40 percent of the workforce.¹⁸ These “make-work bureaucracies” discourage efficiency, innovation, and competition, preserving access for privileged elites.¹⁹ Many of these positions, financed by fluctuating oil rents, have disappeared in past decades, and weak job creation has left the private sector unable to make up the difference.

Another related issue is relatively low productivity and job creation. This follows from Arab economies being largely non-diverse, dependent on oil and other resource-extraction industries, which generate relatively little employment.²⁰ The Arab region is the least-industrialized middle-income region in the world, and Arab States have struggled to develop a productive private sector that does not rely on external supports.²¹ This reliance on oil revenues has gone hand-in-hand with what is often termed a “rentier” system, or economy, in which Arab governments share a portion of these revenues with their populations in exchange for political acquiescence.²² This reliance on “unearned” oil and resource-extraction rents and other external windfalls, including remittances and aid, has been termed the “original sin” of Arab economies.”²³

A third issue is that investment is comparatively low in the Arab region. Foreign Direct Investment (FDI), crucial to introducing new technologies and re-ordering production, is well below the global average, and has not rebounded since the 2008 recession.²⁴ Domestic investment, essential to productivity growth and Small- and Medium-sized Enterprises (SME), is similarly well below the global average.²⁵ Intraregional investment is likewise low, with the lion’s share of Arab sovereign funds invested outside of the region.²⁶ The low levels of investment are tied to persistent instability, which is in part fueled by economic exclusion and high youth unemployment.²⁷ This instability reduces confidence in Arab markets and discourages new market

Unemployment also disproportionately affects women; the unemployment rate among women is almost double that of young women, the highest rate of any region. *Id.*

¹⁴ United Nations Department of Economic and Social Affairs, Population Division, World Population Prospects 2017 (accessed 19 July 2018) (Arab population grew by a factor of 2.38 between 1980 and 2015; 0-24-year-olds make up 51% of the population) (most recent comparable data from up to 2015, dataset selected for Arab League members, calculated by author).

¹⁵ Arab Human Development Report, at pg 80.

¹⁶ *Id.*

¹⁷ International Labour Organization, Global Employment Trends for Youth 2013: A Generation at Risk (2013) pg 63.

¹⁸ Arab Sustainable Development Report, *supra* note 12, at pg 56.

¹⁹ 2016 Arab Human Development Report, *supra* note 13, at pg 31; *See also* Bob Rijkers et al., All in the Family: State Capture in Tunisia (World Bank, Policy Research Working Paper No. 6810, March 2014).

²⁰ Arab Sustainable Development Report, *supra* note 12, at pg 51.

²¹ Cameron Allen, The Institutional Framework of Sustainable Development in the Arab Region: Integrated Planning for the Post-2015 (E/ESCWA/SDPD/2015/Technical Paper.3) pg 24.

²² *Id.* at pgs 131, 63.

²³ Adeel Malik, A Requiem for the Arab Development Model, JOURNAL OF INTERNATIONAL AFFAIRS (Fall/Winter 2014) pg 100.

²⁴ Arab Sustainable Development Report, *supra* note 12, at pg 55.

²⁵ *Id.* at pg 55.

²⁶ *Id.* at pg 164.

²⁷ Elena Ianchovichina, Eruptions of Popular Anger: The Economics of the Arab Spring and its Aftermath (World Bank, 2018) (connecting the unrest of the Arab Spring to the erosion of the social contract in the Arab region, manifested in the hollowing of the middle class, a growing sense of resentment among youth without political connections, and unprecedented youth unemployment).

entrants and investment. SMEs, the greatest contributors to job creation and economic growth, are typically also the most sensitive to such instability, thus perpetuating the problem.²⁸

It should be noted that the one of the most significant challenges to the Arab region is also one of its greatest opportunities. With such a sizeable share of the population available to work, the Arab region is uniquely positioned in terms of labor resources. This advantage can only be realized, however, if the workforce is able to meet labor demands, and if youth and women are productively and decently employed. The Arab region has made significant strides in education, particularly in terms of availability. There still remains a disconnect, however, between the skills and education available, and those in demand. This challenge, along with the need to diversify economies, attract investment, and develop private sectors through entrepreneurship and innovation, are what make STI policies so important in the Arab region.

b. Science, Technology and Innovation Policies

An effective STI policy can ameliorate many of the issues addressed above, such as unemployment, low productivity, and low investment. Science, technology, and innovation are particularly crucial to promote job growth and to take full advantage of global economic trends. The three elements are closely intertwined. As explained by the United Nations Technology Facilitation Mechanism (TFM), “science provides testable basic understanding of the principles and natural laws governing the universe. Technology provides the application of science through techniques, skills, methods and processes to the production of goods and services; and, innovation the creative use of technology for commercial purposes.”²⁹ An STI policy that effectively fosters the development and the use of science and technology toward economic growth can increase productivity, expand and diversify the economy, attract investment, strengthen policy-development overall, address the mismatch between education and employment, and accelerate scientific and technical advances.

Productivity, for instance, is closely connected with technology readiness – or the agility with which economies exploit information and communications technology to enhance competitiveness³⁰ – and capacity to innovate.³¹ These capabilities will be essential if the region hopes to keep abreast of the global economic transformation sometimes termed the “Fourth Industrial Revolution,” or “Industry 4.0.” This global transformation entails rapid developments in new materials, engineering, advanced computing, and digital, bio- and neuro- technologies that are substantially changing production systems and manufacturing sectors around the world.³² This transformation will bring challenges as well as opportunities, such as job disruptions through automation, or improved access to capital for start-ups. Arab governments have a vital role to play in convening stakeholders, regulating applications, and promoting the proper use of new technologies toward productive growth and the realization of the SDGs.³³ It is incumbent upon policy makers to formulate up-to-date STI policies to maximize positive impacts.

This imperative has been recognized by leaders in the Arab region. High-level participants in the 2018 AFSD, for instance, affirmed that the region needs to seize upon the “Fourth Industrial Revolution” and work quickly to modernize and adapt to new professions. In this regard, participants emphasized the importance of education, as well as the need to promote science and technology, to foster innovation and entrepreneurship, and to involve the private sector in these efforts.³⁴ These are core priorities of an STI policy. Participants further recognized the importance of youth and STI in building a diverse and productive economy, and in

²⁸ 2016 Arab Human Development Report, *supra* note 13, at pg 81.

²⁹ United Nations Technology Facilitation Mechanism, Concept Note, Key Priorities for Engaging STI for Building Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation (Goal 9) (15 May 2017) [hereinafter TFM Concept Note] pg 1.

³⁰ Keith Breene, What is ‘Networked Readiness’ and Why Does it Matter? (World Economic Forum, 6 July 2016).

³¹ Arab Sustainable Development Report, *supra* note 12, at pgs 51-55.

³² TFM Concept Note, *supra* note 29, at pg 1; *See also* United Nations Technology Facilitation Mechanism, 2017 STI Forum, Global Online Discussion on STI for the SDGs: Topic 2, STI Plans, Policies and Capacity Building [hereinafter 2017 STI Forum Online Discussion].

³³ United Nations Economic and Social Commission for Western Asia, Technology for Sustainable Development: Creating Decent Jobs and Empowering Youth in Arab Countries (E/ESCWA/30/17, 19 April 2018).

³⁴ 2018 AFSD Key Messages, *supra* note 7, at pgs 1, 8, 10.

attracting investment.³⁵ Following shortly after the AFSD, the 30th Ministerial Session of UNESCWA, convened in late June 2018 under the theme of “technology for sustainable development in the Arab region,” highlighted the need to seize upon the “Fourth Industrial Revolution” and leverage productive gains toward meeting the SDGs in an equitable and participatory way.³⁶ Finally, the Group of 77 relayed a similar message in its most recent meeting, emphasizing the need for international cooperation, technology transfer, and mobilization of domestic resources toward STI.³⁷

Beyond the general aims of increasing the size, agility, and productivity of an economy, STI policy is uniquely positioned to address the disconnect between education and training against the demands of a labor market. As outlined above, technological change can bring about long-term economic growth. In the short term, however, new technologies can have a disruptive effect, eliminating obsolete low-skilled jobs, while creating new jobs in entirely different industries. On the other hand, if structural changes to create high-skilled positions are not undertaken, this will exacerbate the issue of over-qualified jobless university graduates, who either have the wrong skills or are simply unable to find relevant employment in their home countries. The net job creation of technological change is typically positive, provided sufficient training and innovation systems are in place. STI policies can ensure everyone benefits, including the low-skilled workers potentially displaced, and high-skilled workers who need suitable opportunities.³⁸

Finally, in addition to promoting general economic growth and the alignment of education and employment, STI policies can improve overall policy-making by strengthening the “science-policy interface.” The involvement of academics and research institutions in policy making can improve the empirical base of policy decisions, can insulate them from political biases, and can increase accountability. An STI policy can bolster the academic and scientific sectors and can create linkages with policy makers.³⁹ This was likewise highlighted as an area of focus in the 2018 AFSD.⁴⁰ While difficult to measure, by a number of indicators, the Arab region lags in terms of STI. The region’s technology readiness is relatively good, however capacity to innovate, as measured by the World Economic Forum’s Global Competitiveness Index, remains low, having declined in several countries over the past decade.⁴¹ The same holds for the Global Innovation Index (GII), one of the most recognized and comprehensive indices. Most Arab countries made little or no improvements in their GI rankings between 2011 and 2016, especially when controlling for their gross domestic product (GDP).⁴²

An appropriate STI policy has a number of tools to improve innovation and competitiveness, and to accomplish the above potential gains. While it is beyond the scope of this paper to provide detailed substantive suggestions of what an STI policy should contain, a number of broad elements can be highlighted. Critically, an STI policy should invest in human capital, in particular by ensuring quality and relevant education and training to meet gaps.⁴³ An STI policy should also invest in research and development, including through scholarships, public research, publications, an intellectual property regime, and funding.⁴⁴ It is important to also foster high-technology industry and to promote SMEs, including through support to entrepreneurs and start-ups, venture and angel funds, and incubators.⁴⁵ This can be pursued through legal frameworks that ease the cost of entry, as well as economic and financial instruments that provide incentives to enter the market.

³⁵ *Id.* at pgs 1, 4.

³⁶ United Nations Economic and Social Commission for Western Asia, Website, 30th Ministerial Session.

³⁷ Group of 77, 2017 Ministerial Declaration (2017) [hereinafter G77 Declaration] paras 7, 56; *See also* Group of 77, Statement on Behalf of the Group of 77 and China at the Second Annual Multi-Stakeholder Forum on STI for the SDGs (15 May 2017).

³⁸ Organization for Economic Co-operation and Development, The OECD Jobs Strategy: Technology, Productivity and Job Creation: Best Policy Practices: Highlights, pg 3.

³⁹ 2017 STI Forum Online Discussion, *supra* note 32.

⁴⁰ 2018 AFSD Key Messages, *supra* note 7, at pg 3.

⁴¹ Arab Sustainable Development Report, *supra* note 12, at pgs 51-53.

⁴² Nibal Idlebi, Presentation, The Innovation Landscape in Arab Countries (April 2018) pgs 8, 13-14, 34.

⁴³ Nibal Idlebi, Presentation, Innovation Policy for Inclusive Sustainable Development in the Arab Region (April 2018) pg 38.

⁴⁴ Ludovico Alcorta, The Policy Content and Process in an SDG Context: Objectives, Instruments, Capabilities and Stages (2018) pg 7.

⁴⁵ Guillermo A. Lemarchand, Monitoring STI Policies and their Contexts through GO-SPIN: Ecosystems, Legal Frameworks and Operational Policy Instruments (April 2018) pg 9; Idlebi, *supra* note 43, at pg 38.

Additionally, in order to foster an integrated regional innovation ecosystem, it is important for domestic STI policies to have a clear regional dimension.⁴⁶ Finally, it is essential that an STI policy be inclusive, transparent, and accountable. This applies both to the process of policy-formation and the aims of the policy. In the Arab region, for example, STI policies need to be geared to promote youth employment, and need to consider how to increase the engagement of women and marginalized communities in Science, Technology, Engineering, and Mathematics (STEM) fields.⁴⁷

The aim of inclusiveness, transparency, and accountability in the policy-making process is essentially a requirement of good governance. As with any policy, this means that the an effective STI policy should be the outcome of a participative process, incorporating perspectives on gender, ethics, indigenous knowledge systems, and regional priorities; should clearly distinguish roles and responsibilities; should incorporate concrete means of accountability, where possible separating functions of implementation and review; should create links between the State, civil society, and the private sector; should ensure the rule of law; should be evidence-based; and should incorporate mechanisms to allow public access to information. This will be discussed further in Part III.

c. Regional Collaboration

The above sections have outlined some of the key economic development challenges facing the Arab region, also discussing the potential of STI policies to meet these challenges. Recognizing the need for good economic governance conditions, this section highlights the need for specifically international and regional cooperation and policy-making on STI, as an example of how regional cooperation on a subset of economic development can create net-positive effects.

The possibilities for cooperation and partnership in STI are particularly promising at this moment, given the momentum around the SDGs and the fact that the global economy is still in the early stages of the so-called “Fourth Industrial Revolution.”⁴⁸ New knowledge is always being diffused and appropriated, and there remain great risks and great opportunities, such that no single stakeholder is able to address the transformation alone. The moment is ripe to undertake an STI trajectory consistent with the SDGs.⁴⁹ This was similarly recognized by Arab leaders in the 2018 AFSD, where participants stressed the need for further regional cooperation and integration to take full advantage of this technological revolution.⁵⁰

The importance of regional cooperation on STI is attributable to a number of factors. Globalization has created opportunities to organize research and production across national boundaries, requiring mobility of talent and opportunities for international collaboration.⁵¹ Regional strategies are necessary to realize these opportunities. Second, policy makers have increasingly recognized the regional dimensions of national strategies.⁵² This recognition has come alongside a greater understanding of innovation as a systemic phenomenon requiring a variety of pre-requisites, ranging from trained personnel and access to capital, to regulatory environments and networks. This broader view requires a better articulation of the interplay between national and regional policy instruments.⁵³ The importance of networks is especially relevant to the regional dimension of STI policies; while an understanding of the importance of networks is not new, the speed of connectivity, the number of potential partnerships, and the extended geographic distribution of inputs make the regional dimension of innovation and economic growth particularly important.⁵⁴

⁴⁶ 2017 STI Forum Online Discussion, *supra* note 32.

⁴⁷ Alessandro Bello, Women in STI: Addressing the Gender Gap (April 2018) pgs 18, 32.

⁴⁸ TFM Concept Note, *supra* note 29, at pg 1.

⁴⁹ *Id.*

⁵⁰ 2018 AFSD Key Messages, *supra* note 7, at pg 8.

⁵¹ Organization for Economic Cooperation and Development, Regions and Innovation Policy: OECD Reviews of Regional Innovation (2011) at pg 33.

⁵² *Id.*, at pg 19.

⁵³ *Id.*, at pg 30.

⁵⁴ *Id.*, at pgs 34-35.

The importance of regional policy planning for STI can be seen in the rapid development experience of Southeast Asia. The deepening of STI capacities has allowed Southeast Asian countries to climb global value chains and differentiate their economies to exploit comparative advantages.⁵⁵ A key aspect of research and development is to integrate useful technologies and innovations originating outside a country's borders. Increasing innovation capacity depends on building networks and incorporating foreign ideas. International knowledge networks are critical to a national STI program, and can act as a catalyst for economic development. Southeast Asian countries have sought to create these linkages through tools such as FDI, co-invention, labor migration, and scientific collaboration – the region has one of the highest rates of scientific collaboration.⁵⁶ This demonstrates the importance of regional cooperation and planning for STI, and to foster economic development.

Such action can take a number of forms. At its most basic level, regional cooperation on STI can focus on identifying trends, obstacles, and commonalities, and sharing best practices and lessons learned. Beyond knowledge sharing, regional cooperation can entail collective action to address these challenges – for example regional mechanisms to invest in green energy technology development to meet climate-change commitments. Arab States can also collaborate through research partnerships, sharing resources, and working towards solving common problems. Regional cooperation between researchers in the Arab region is minimal, making it a potential area for significant progress.⁵⁷ Finally, Arab States need to further integrate STI sectors in order to be globally competitive, as recognized in the 2018 AFSD. In order to realize these goals, it is essential for Arab States to identify regional STI policy priorities and to develop regional STI action plans and roadmaps.

III. Analytical Framework: Modes of Accountability

a. Importance of Governance

Part II looked at economic development challenges, STI policies as a partial solution, and the importance of regional planning in this field. As mentioned above in Part I, good governance is an essential component of any policy-making process and the success of its implementation. This section will outline in greater depth the importance of good economic governance in the Arab region, and will introduce an analytical framework to apply concepts of governance to economic development planning, specifically to the STI context. Previous experience with development plans and initiatives, especially the Millennium Development Goals (MDGs), have made clear the importance of governance and institutions, namely the concepts of legitimacy, accountability, and uptake.⁵⁸ A central lesson has been that in order for a plan to be effective, the stakeholders called upon to implement and monitor the plan need to have bought in. The same lessons can be seen in the experience of successful emerging economies. The East Asian “Tiger” economies, which underwent rapid growth in the 1960s and 1970s, are instructive in this regard. These economies undertook inclusive planning strategies, characterized by effective mechanisms for dialogue between governments and their societies, central economic agencies coordinating implementation, and the mobilization of all stakeholders around a long-term economic plan.⁵⁹ Similar lessons can be seen in the transitions of northern Mediterranean countries, where transparency and accountability served as the overarching umbrella for reform.⁶⁰

⁵⁵ Organization for Economic Cooperation and Development, *Innovation in Southeast Asia: OECD Reviews of Innovation Policy* (2013) pg 11.

⁵⁶ *Id.*, at pgs 79-80.

⁵⁷ Arab Sustainable Development Report, *supra* note 12, at pg 173.

⁵⁸ Allen, *supra* note 21, **Error! Bookmark not defined.**, at pg xiii.

⁵⁹ Kei Sakamoto, *Efforts to Introduce Inclusive Planning in Egypt* (Brookings Institution, Global Economy & Development Working Paper No. 58, 2013) pg 14.

⁶⁰ Allen, *supra* note 21, at pg 30.

Today, Southeast Asia is taking concrete steps to increase policy coherence with global development trends and priorities. The Association of Southeast Asian Nations (ASEAN), for instance, has developed a regional development strategy for 2025, and, in collaboration with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), has identified operational complementarities with Agenda 2030.⁶¹ This initiative recognizes the need to go beyond ad-hoc dialogue to ensure complementarity and coherence between regional and global development strategies, proposing concrete governance mechanisms to carry this work forward, including: 1) a “Center for Sustainable Development Studies and Dialogue,” linking priority areas of work between UNESCAP and the ASEAN secretariat, and mobilizing resources in priority areas; and 2) a “Programme for Knowledge and Outreach on Complementarities,” filling knowledge gaps to improve evidence-based policy development, and conducting outreach in priority areas.⁶²

Many Arab governments and institutions share certain deficiencies in governance that have hampered development efforts. In part this is connected to the problem of rentier economies and wealth distribution through public employment. Where public institutions should in theory be concerned with implementing policy, certain institutions in the Arab region have been termed “patrimonial institutions,” wherein the purpose is to supply jobs and allocate patronage.⁶³ Reforming public institutions has been a critical priority for some time.⁶⁴ The SDGs initiative offers a unique window of opportunity to transform governance structures and undertake needed institutional reforms.⁶⁵

b. Global Administrative Law

Globally viewed, governance can take on many meanings and encompass many concepts, sometimes becoming broad to the point where the term loses its usefulness. This section will introduce the concept of “global administrative law” (GAL) as a concrete means to analyze and apply principles of governance to economic policy-making processes.

The concept of global governance has emerged in an era of vast global interdependence, alongside a proliferation of international organizations, multinational corporations, and a trans-boundary civil society. International regimes have emerged and enlarged their remits to enable cooperation between national authorities, as well as to regulate and administer challenges that no national authority can address alone, including economic regulation and sustainable development. It is in this context that the concept of GAL arises. GAL posits that much of what is termed global governance can be understood and analyzed as administrative action at international, regional, and national levels: forming rules and policy, adjudicating disputes, and engaging in other forms of administrative decision-making and management.⁶⁶ This encompasses both direct administrative action by transnational bodies, as well as “distributed administration,” or administrative action taken by domestic regulatory actors in compliance with an international regime.⁶⁷ The latter is particularly important where the actions of a domestic actor have trans-boundary effects, such as water use, pollution, or greenhouse gas emissions.

GAL can be defined as “comprising the mechanisms, principles, practices, and supporting social understandings that promote or otherwise affect the accountability of global administrative bodies, in particular by ensuring they meet the adequate standards of transparency, participation, reasoned decision, and legality, and by providing effective review of the rules and decisions they make.”⁶⁸ The focus of the field

⁶¹ United Nations Economic and Social Commission for Asia and the Pacific, *Complementarities between the ASEAN Community Vision for 2025 and the United Nations 2030 Agenda or Sustainable Development: A Framework for Action* (2017) pg 10.

⁶² *Id.* at pgs 67-68.

⁶³ United Nations Economic and Social Commission for Western Asia, *Arab Governance Report II: Governance and Institutional Transformations in Conflict-Affected Arab Countries* (E/ESCWA/ECRI/2016/1) pgs 54, 76-77.

⁶⁴ *Id.* at pg 76.

⁶⁵ Allen, *supra* note 21, at pg 29.

⁶⁶ Benedict Kingsbury et al., *The Emergence of Global Administrative Law*, 68 *LAW AND CONTEMPORARY PROBLEMS* 15-62 (Summer 2005) pg 17.

⁶⁷ *Id.* at pgs 21-22.

⁶⁸ *Id.* at pg 17.

is thus not the specific content of rules or policies, but the process by which they are produced. Bodies exercising global administrative functions include international organizations, informal regulatory networks, national actors conforming to an international regime, hybrid public-private regulatory bodies, and some private actors exercising transnational governance functions.⁶⁹ Certain mechanisms of accountability highlighted above, drawn from the field of domestic administrative law, can helpfully be applied to international, regional, and national bodies engaged in regulatory functions having a transnational dimension. These mechanisms provide a framework to hold policy-makers and institutions accountable to their constituents and functions, and can complement domestic administrative law regimes. The aim is to improve policy making through a focus on process, as is the aim of domestic administrative law. The following sections will further hone in on four specific mechanisms of accountability that can be applied to these actors, focusing on transparency, participation, reasoned decision-making, and effective review.

i. Transparency

The concepts of transparency and participation are closely interlinked. In order to participate and contribute proposals and positions on a policy, information on the policy and the process behind it need to be accessible. The requirement is not a negative one – to merely avoid obfuscating or hiding information. The requirement of transparency is positive. It is incumbent upon policy makers to actively make information about the process available to relevant stakeholders and the public. This has been acknowledged at the international level, based on lessons learned from the UN’s experience with the MDGs, where the generation of indicators was difficult, and stakeholder buy-in was low.⁷⁰ A core lesson was that where promulgating a new regulatory regime, in this case the MDGs, broad participation is essential to ensure the regime is comprehensive and legitimate, and to ensure national ownership of the associated monitoring system. In order to have participation, you need transparency. The Report of the Secretary General on global economic governance and development picked up on some of these themes, noting that States have acknowledged the importance of “enabling all members of civil society to be actively engaged in sustainable development, and recognized that improved participation of civil society depended on, inter alia, strengthening access to information, building civil society capacity and facilitating the flow of information between the government and the public.”⁷¹ The report further encourages active communication between public and private sectors, and the development of models for integrating sustainability reporting.⁷²

As mentioned above, the importance of transparency, defined more broadly as the active production and dissemination of information regarding policies and policy-making processes, was essential to successful emerging economies. The example of the East Asian “Tigers” demonstrates this. Critical elements in the success of these States’ transitions included establishing a dialogue mechanism, actively engaging stakeholders, and promulgating a long-term vision, visible to the public.⁷³ This point is further emphasized in a World Bank report on strategies for sustained and inclusive growth. The report notes that the transition to a higher-income economy can take decades, requiring short-term sacrifices by the public in terms of consumption. In order for the public to accept this bargain, policy makers in successful transitions had to communicate a credible vision of the future and a strategy for getting there.⁷⁴

A trend towards greater transparency has also been observed in some international regulatory bodies. The World Bank, International Monetary Fund (IMF), and World Trade Organization (WTO), for instance, have increased public access to internal documents in recent years.⁷⁵ The World Bank has made an enormous volume of project documents available on a searchable database on its website.⁷⁶ Other transnational

⁶⁹ *Id.*

⁷⁰ United Nations Department of Economic and Social Affairs, First Meeting of the Inter-Agency and Expert Group on the Sustainable Development Goal Indicators (ESA/ST/AC.300/L3, 24 June 2015) para 13.

⁷¹ Report of the Secretary General, *supra* note 5, at para 65.

⁷² *Id.*

⁷³ Sakamoto, *supra* note 59, at pg 14.

⁷⁴ Commission on Growth and Development, The Growth Report: Strategies for Sustained Growth and Inclusive Development (World Bank, 2008) pg 26.

⁷⁵ Kingsbury, *supra* note 66, at pg 38.

⁷⁶ World Bank, Website, Documents & Reports (accessed 10 June 2018).

regulatory networks, such as the Basel Committee on banking supervision and International Organization of Securities Commissions (IOSCO), have similarly developed websites making information available on decisions, and the considerations upon which those decisions are based.⁷⁷

Particularly instructive in this regard is the United Nations Inter-agency Expert Group on SDGs (IAEG-SDGs). Based on the lessons learned from the MDGs, the IAEG-SDGs engaged in a broadly participatory and transparent approach to its mandate. The IAEG-SDGs accomplished this through a sort of global “notice and comment” procedure, wherein it elicited rounds of feedback and comments through a publicly accessible online platform from a wide array of stakeholders – UN agencies, governments, experts, and civil society. The IAEG-SDGs, to the extent possible, acted primarily as a facilitator, refraining from taking positions on the proposals, though the final decision on the indicator set to be recommended remained with IAEG-SDGs members.⁷⁸ In addition, the group maintained an up-to-date website containing a wide range of information concerning the process itself, down to meeting minutes, terms of reference, and accompanying documents.⁷⁹ While certainly not every policy-making body has the time, resources, or expertise to engage in such a level of transparency, the IAEG-SDGs process remains instructive as an example of good practice.

Another interesting example of good practice is the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, also known as the “Aarhus Convention.” Adopted under UNESCWA’s sister commission, UNECE, membership includes European and Central Asian States, as well as the European Union (EU).⁸⁰ The convention establishes a number of public access rights with regard to the environment. One is a right to receive environmental information held by public authorities, including policies and measures taken. Parties to the convention are obligated to make necessary changes to ensure their regulatory authorities can and will comply with such requests.⁸¹ While limited to environmental information, the convention highlights the importance of access to information, and provides an example of what is possible.

These examples of transparency can helpfully inform policy-making and implementation processes in the Arab region, where clear information on policies and progress is often scarce, and public engagement low. Key stakeholders, such as the League of Arab States (LAS) or national bodies responsible for sustainable and economic development planning can look to these global and regional efforts for examples of how to increase transparency in the Arab region. For example, similar to the IAEG-SDGs process, policy-makers could institute online notice-and-comment procedures while drafting policies, which would entail notifying the public and potential stakeholders, disseminating proposals, making a platform available for stakeholders to contribute comments on the proposals (which could be as simple as an online spreadsheet), compiling and editing the received comments, and iterating the process as many times as necessary. Borrowing from the Aarhus standards, Arab parliaments and regional institutions could encourage and promulgate more extensive access-to-information regulations, and commit to make necessary changes to ensure domestic regulatory bodies are able to comply with information requests. Additionally, policy makers could undertake policy-awareness campaigns, and maintain regularly-updated online platforms.

ii. Participation

The second mechanism, participation, serves numerous functions. Broad participation of stakeholders ensures that a resulting policy is comprehensive and appropriate, reflecting the needs and priorities of those it seeks to regulate.⁸² Bringing in a diversity of views can also enhance the quality of a policy, regardless of whether participants are regulated by that policy. Beyond the quality and representativeness of the substance of a policy, however, there is a growing recognition that the *process* of participation is essential to establish the legitimacy of a policy and ensure adequate uptake and monitoring. While not all views can be

⁷⁷ Kingsbury, *supra* note 66, at pg 38.

⁷⁸ United Nations Statistics Division, First Proposed Priority Indicator List (2015).

⁷⁹ United Nations Statistics Division, Website, Inter-Agency Expert Group on SDG Indicators (accessed 10 June 2018).

⁸⁰ United Nations Treaty Collection, Website, Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (accessed 10 June 2018).

⁸¹ European Commission, What is the Aarhus Convention (2017).

⁸² Arab Sustainable Development Report, *supra* note 12, at pg 138.

incorporated, the perception that those views have been considered is essential to legitimize a policy, and the process of consultation can go a long way to raise awareness and educate the public about the aims of the policy.⁸³ While there are countervailing considerations to participation – such as confidentiality, flexibility, speed, or expense – some level of participation is essential to promulgate a new policy or piece of legislation. Generally, more participation will be necessary – both in terms of stakeholder involvement and the existence of mechanisms to allow such involvement – when the entity setting the agenda, and the goals and indicators proposed to monitor progress toward fulfilling the agenda, are relatively new, lacking any established legitimacy. Participation is also likely to be greater if the monitoring entity is reliant on a wide, diffuse range of stakeholders to produce the requisite data.

As with transparency, the obligation of participation is not negative, to merely permit stakeholders to participate. There is a positive aspect – costly and more difficult – to participation: political and practical willingness to enable active engagement of stakeholders to ensure their contribution to the process is possible and received. Where necessary, this may require capacity-building of stakeholders (i.e. on how and through what means effective participation takes place). What is required of policy makers is not merely to provide stakeholders a seat at the table, but to ensure they have the capacity to meaningfully occupy that seat, and that they are actively invited. For the Arab region, this requires building the capacity of civil society organizations to better engage in regional policy-making and priority-setting agendas, for example through outreach and advocacy programs to explain the framework of the 2030 Agenda, the role of LAS and UNESCWA, and the existing regional development architecture. With regard to National Statistics Offices (NSOs) in the region, this could entail capacity building in the form of resources and training in sustainable development measurement, so that NSOs can participate in discussions of what can adequately be monitored and where priorities lie. Finally, participation is not only relevant to the process of agenda-setting, but extends to implementation and review.

International recognition of the importance of participation is likewise reflected in the Report of the Secretary General on global economic governance and development. The report stresses that active engagement is necessary between governments, international organizations, civil society, and the private sector, in order to “allow a higher level of public participation and support for development initiatives and further capacity-building and policy formulation [...]”⁸⁴ The report further recognizes that political action furthering sustainability will not move as quickly or efficiently without the involvement of the private sector and civil society in policy formation.⁸⁵ In this regard, businesses have acknowledged the importance of sustainable development to their business interests and global citizenship, and expressed their willingness to collaborate with governments in setting goals and targets.⁸⁶ Participation in sustainable development policy-making can take a number of forms, such as national councils or advisory bodies, ad-hoc advisory groups and dialogues, expert panels and focus groups, forums, inter-sectoral consultations, and workshops. Barriers to broader participation in policy-making in the Arab region persist, however, including the centralization of civil society, which is in some cases tied to the State; insufficient interface with the private sector, which is hampered by clientelism and patronage; deficiencies in merit-based administration; and outdated bureaucratic structures, which in some cases fail to incorporate new modes of administration, including the use of information and communications technologies.⁸⁷

Internationally, there has been some movement toward increasing participation. The Organization for Economic Cooperation and Development (OECD), for example, responded to a need for greater procedural legitimacy by establishing notice-and-comment procedures, and encouraging greater public participation through mechanisms in member States.⁸⁸ Moreover, the IAEG-SDGs is instructive in terms of participation for many of the same reasons outlined above. The group acted as a facilitator, eliciting input from various

⁸³ *Id.* at pg 138.

⁸⁴ Report of the Secretary General, *supra* note 5, at para 63.

⁸⁵ *Id.* at para 66.

⁸⁶ *Id.* at para 70.

⁸⁷ John Dixon et al., Public Administration in the Middle East and North Africa, *International Journal of Public Administration* 41:10 (2018).

⁸⁸ Kingsbury, *supra* note 66, at pg 35.

stakeholders through a series of consultations. The issue of the capacity of national regulatory bodies to participate in data collection, in particular NSOs, was identified, and is being pursued by a separate body, the High-level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development, created by the United Nations Statistics Commission in March 2015.

Finally, the High-Level Political Forum for Sustainable Development (HLPF) has also sought to be participatory, within the constraints of its high-level membership. One recommendation to facilitate this has been the use of inclusive preparatory processes.⁸⁹ The AFSD has likewise sought to be participatory within the constraints of its structure, including through preparatory meetings, smaller “special sessions,” and the inclusion of some academics and civil society members on its panels.

iii. Reasoned Decision-Making

There is likewise a clear connection between transparency and the requirement of reasoned decision-making. If the public is entitled to information on why certain decisions were made, it will encourage policy makers to base decisions on clear and justifiable rationales; they will be more accountable to stakeholders if those stakeholders can see why certain decisions were reached, who was involved in the process, and who is expected to benefit.

Recent assessments have emphasized the importance of evidence-based policy making as a critical aspect of governance.⁹⁰ Availability of quality data and consistent data collection – based on which an exchange of knowledge between experts and policy makers can take place – is a pre-requisite for justifying decisions and lending greater legitimacy to resulting policies. In terms of reason-based decision-making in the Arab region, there are recent initiatives seeking to create networks of scientists and academics, and to connect them to policy makers, including the Inter-Academy Partnership (IAP), the Eastern Mediterranean Public Health Network, and a series of forums, organized in partnership with UNESCWA, providing science-related technical cooperation and advisory services to governments in the Arab region (e.g. expert group meetings and/or intergovernmental meetings). However, the actual impact of these initiatives on national-level policy decision-making still needs to be quantified, as to date it appears that fully integrated and collaborative exchange remain the exception rather than the rule.⁹¹

On the whole, reason-giving does not appear to be as widespread among global administrative bodies, though some institutions have provided rationales to strengthen the acceptability of their decisions. These can inform decision-making processes in the Arab region. The Basel Committee, for example, established an online dialogic process in developing new regulations for central banks.⁹² The World Bank’s adjustment of its poverty line in 2015 is another example. The Bank published a detailed paper outlining the methodological decisions taken in the revision, as a number of methods and results were possible.⁹³ While the revision was notably not participatory, essentially done in-house, the thorough explanation and justification of the methodology used lent legitimacy to the poverty line indicator as it was set to be adopted within the SDG monitoring framework. There has been some increase in evidence-based analytical approaches in the Arab region as well, for instance scenario analysis and quantitative modeling in Saudi Arabia and the United Arab Emirates.⁹⁴ There has also been a proposal to use scenario modeling in future Arab Sustainable Development Reports (ASDR).⁹⁵

⁸⁹ Allen, *supra* note 21, at pg 98.

⁹⁰ See, e.g., United States Commission on Evidence-Based Policymaking, *The Promise of Evidence-Based Policymaking* (2017); Erol Yayboke, *Harnessing the Data Revolution to Achieve the Sustainable Development Goals: Enabling Frogs to Leap* (CSIS, 2017); General Assembly Resolution 70/1, *supra* note 3, at para 74 (emphasizing that follow-up and review of the 2030 agenda will at all levels be “rigorous and based on evidence, informed by country-led evaluations and data which is high-quality, accessible, timely, reliable, and disaggregated...”).

⁹¹ Dohjoka et al., *Science Diplomacy in Arab Countries: The Need for a Paradigm Shift* (2017) *Science & Diplomacy Quarterly*.

⁹² Kingsbury, *supra* note 66, at pg 39.

⁹³ Francisco H. G. Ferreira et al., *A Global Count of the Extreme Poor in 2002: Data Issues, Methodology and Initial Results* (World Bank, 2015).

⁹⁴ Arab Sustainable Development Report, *supra* note 12, at pgs 145-146.

⁹⁵ Allen, *supra* note 21, at pg 118.

Arab countries improved evidenced-based reporting around the MDGs, with most Arab countries having submitted MDG progress reports, and some having produced sustainable development reports. A number of Arab countries also employed simulations modeling from the World Bank to measure MDG achievements. While there is much work to be done, progress has already been made leading up to the adoption of the SDGs.⁹⁶

iv. Effective Review

The final accountability mechanism to be explored in this section is effective review. A policy cannot succeed if there are no established markers or benchmarks against which progress is measured. There has also been growing recognition that accountability requires monitoring, review, and, where relevant, remedy mechanisms.⁹⁷ Review mechanisms require political support, adequate resources, and institutional capacity development. The process of review is important not only to objectively measure progress, but also to create a “culture” of accountability, diffuse the policy to the implementing level, create linkages, and develop administrative expertise related to sustainable development.⁹⁸ This process can be costly, and it is thus important to carefully determine what is feasible and what can be adequately measured, so as not to generate impossible expectations

Review can take a variety of forms, from voluntary to obligatory, and involve a variety of actors, from civil society to parliamentarians. Voluntary National Reviews (VNRs) have thus far been a key method of review for the SDGs. Indicator frameworks are also an essential tool to provide benchmarks. Regional institutions can play a valuable role in this regard, both by conducting reviews and by facilitating peer learning and collaboration.⁹⁹ The European Union Peer Review Improvement through Mutual Exchange on Sustainable Development (PRIME-SD) Guidebook provides an example of the EU experience in sustainable development peer review.¹⁰⁰

A significant challenge in the Arab region in connection with effective review is a lack of sufficient data and standardized measurement of policy and programmatic outputs. The evidence base and national capacity for monitoring the MDGs was lacking in the Arab region,¹⁰¹ and still suffers serious shortcomings, as was recognized in the 2018 AFSD.¹⁰² Providing capacity-building to NSOs, as mentioned above, will be essential to adequately measure progress toward sustainable development. UNESCWA’s Statistics Division is already addressing some of these issues through its work programme. For instance, UNESCWA conducted a review of country experiences measuring sustainable development, and published a report including recommendations for the post-2015 agenda. The Statistics Division has also engaged in efforts to improve capacity through trainings of national accountants, workshops, technical assistance missions, and convening expert groups on subjects such as financial services and business registers.¹⁰³

Having explained the importance of governance and laid out an analytical framework, Part IV will survey development and STI planning in the Arab region, applying the accountability mechanisms explored above.

⁹⁶ Arab Sustainable Development Report, *supra* note 12, at pgs 145-147.

⁹⁷ Allen, *supra* note 21, at pg xiii.

⁹⁸ Talaat Abdel-Malek, An Accountability Framework for the Post-2015 Development Agenda: An Arab Regional Perspective (E/ESCWA/SDPD/2014/WP.1) pg 7.

⁹⁹ Arab Sustainable Development Report, *supra* note 12, at pg 139.

¹⁰⁰ European Commission, Peer Review Improvement through Mutual Exchange on Sustainable Development: A Guidebook for Peer Reviews of National Sustainable Development Strategies (2006).

¹⁰¹ Arab Sustainable Development Report, *supra* note 12, at pg 176.

¹⁰² 2018 AFSD Key Messages, *supra* note 7, at pgs 1, 9.

¹⁰³ United Nations Economic and Social Commission for Western Asia, Actions Taken in the Field of Statistics since the Previous Session of the Statistical Committee: Implementation of Statistical-Related Activities under the Programme of Work for 2015 and 2016 (E/ESCWA/SD/2017/IG.1/3).

IV. Accountability in Economic Development: STI Planning

a. Overview of Sustainable Development Planning

A variety of institutions, plans, and strategies make up the economic development planning framework in the Arab region. Guided by the priorities set out in “Agenda 21,” the MDGs, and now the SDGs at the global level, regional organizations have continued to pursue economic development through a number of means. Main regional actors include UNESCWA – which publishes the ASDR, organizes the AFSD, provides technical support to member states and policy planners, and publishes a wide variety of reports and papers – alongside a number of other UN agencies coordinated by the Regional Coordination Mechanism (RCM). The LAS is another key actor in policy development, in particular the Council of Arab Ministers Responsible for the Environment (CAMRE),¹⁰⁴ and the Economic and Social Council.¹⁰⁵ A number of sub-regional organizations also promote regional policy development and cooperation, including the Gulf Cooperation Council (GCC), Arab Maghreb Union (AMU), Union for the Mediterranean, and African Union.¹⁰⁶

The High-Level Political Forum (HLPF), established in 2013, provides a global-level umbrella bringing together the different strands and sectors of sustainable development. At the invitation of the General Assembly, UNESCWA convened the AFSD, for the first time in 2014, as a regional forum to feed into the HLPF. The Arab region has a wide array of strategies related to different sustainable development priorities at the sectoral level (e.g. a green energy strategy, and a strategy to reduce food waste).¹⁰⁷ Initiated by the LAS, a science and technology strategy was envisioned for the region in 2010. The strategy was put on hold in 2011,¹⁰⁸ however a draft was eventually endorsed by the Council of Ministers of Higher Education and Scientific Research in the Arab World in 2014.¹⁰⁹ The Arab region has also had two overarching sustainable development strategies: the Sustainable Development Initiative in the Arab Region (SDIAR), adopted in the early 2000s, and the Arab Strategic Framework for Sustainable Development (ASFSD), which was undertaken as an update to the SDIAR based on the new global sustainable development framework. Reviews have found that the commitments and recommendations in these strategies have not been effectively implemented.¹¹⁰ Among other issues, reports have cited a weak institutional framework for cooperation within the LAS, a poor implementation record for regional plans, a lack of follow-up, a lack of political will, and overall institutional deficiencies.¹¹¹

These underwhelming results are in part due to the historic marginalization of sustainable development as an environmental issue, accorded less weight than security or economic issues.¹¹² This has changed over the last few years, with additional resources and a dedicated task force allocated to the AFSD.¹¹³ The following reviews a selection of global and regional policies concerned with STI planning, as a subset of economic development planning of particular concern to the Arab region. The review focuses on process rather than substance, illustrating how efforts to improve economic governance – in the form of the accountability mechanisms of transparency, participation, reasoned decision-making, and effective review – can improve policies directed towards economic growth.

¹⁰⁴ Arab Sustainable Development Report, *supra* note 12, at pgs 147-149.

¹⁰⁵ Lamia M. Bissat, From Government to Governance: How Will the Arab Region Meet the Goals of Sustainable Development in the Post-2015 Period? (E/ESCWA/ECRI/2015/WP.3) pg 37.

¹⁰⁶ Arab Sustainable Development Report, *supra* note 12, at pg 148.

¹⁰⁷ Allen, *supra* note 21, at pg 96.

¹⁰⁸ United Nations Education, Scientific and Cultural Organization, Webpage, An Arab Plan of Action for Science and Technology (accessed 10 June 2018).

¹⁰⁹ United Nations Educational, Scientific and Cultural Organization, UNESCO Science Report: Toward 2030 (2015) pg 435.

¹¹⁰ Allen, *supra* note 21, at pg 96.

¹¹¹ *Id.* at pgs 96-97.

¹¹² *Id.* at pg 96.

¹¹³ United Nations Economic and Social Commission for Western Asia, Information Note, Arab Forum for Sustainable Development – 2018 (E/ESCWA/RFSD/2018/INF.1) pg 1.

b. Global-Level STI Planning

The overall global framework for STI planning is contained in the SDGs, especially Goal 4 (Quality Education), Goal 8 (Decent Work and Economic Growth), Goal 9 (Industry, Innovation, and Infrastructure), and Goal 16 (Peace, Justice, and Strong Institutions). Each goal consists of sub-targets, which are in turn associated with measurable indicators.¹¹⁴

A particularly novel global development with regard to STI is the Technology Facilitation Mechanism (TFM). The establishment of the TFM was first called for in the outcome of the 2012 UN Conference on Sustainable Development (Rio +20), and again in the 2015 Addis Ababa Action Agenda on Financing for Development and the 2030 Agenda for Sustainable Development. In response, the President of the General Assembly convened eight workshops and structured dialogues to discuss the way forward. An Interagency Working Group, initiated by the United Nations Department of Economic and Social Affairs (UNDESA) and the United Nations Environment Programme (UNEP), in 2014, took these discussions forward.

The TFM consists of three main components: a task-team, a forum, and an online platform. The first component, the interagency task team, consists of the membership of the previous working group, along with any interested additional UN entities, who must apply by indicating the resources and expertise they intend to contribute to the team. The task team is advised by a multi-stakeholder group of 10 experts from civil society, the private sector, and the scientific community, to be appointed by the Secretary General.¹¹⁵ The task team provides secretariat functions to the expert group, as well as the second main component of the TFM, an annual forum on STI convened by the president of the United Nations Economic and Social Council (ECOSOC). The forum is a much larger venue, bringing together a wide variety of stakeholders, including member States, members of the scientific community and academia, business leaders, and UN agencies. Centering on a new thematic area each year, the forum seeks to build connections and disseminate lessons and best practices. The 2017 forum also included an open online discussion forum moderated by STI experts.¹¹⁶

The third component of the TFM, which has yet to become operational, is an online platform. As mandated in the 2030 Agenda, the online platform is being developed on the basis of an independent technical assessment. The interagency task team began by conducting consultations, mapping existing STI initiatives, developing three broad options, and finally, on the basis of the mapping and the three options, drafting terms of reference for the technical assessment.¹¹⁷ The resulting technical assessment surveyed options for the architecture and governance structure of the platform, as well as costs and benefits for each option.¹¹⁸ Finally, the task team solicited additional comments online on the basis of the assessment. It is envisioned that the final platform will be used to establish a comprehensive mapping of STI initiatives; to facilitate access to information, knowledge, best practices, and lessons learned on STI policies; and to disseminate relevant open access scientific publications.¹¹⁹

The TFM is also connected to the United Nations Commission on Science and Technology for Development (UNCTAD). The terms of reference state that the forum shall provide inputs to the Commission, particularly pertaining to government action and policy, while the Commission's expertise will in turn inform the discussions of the forum.¹²⁰ Additional notable global STI policy efforts include the work of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), including projects and studies through its Regional Bureau for Science,¹²¹ and the development of STI policy tools and guidelines for member States – in

¹¹⁴ United Nations Development Programme, Website, Sustainable Development Goals (accessed 10 June 2018).

¹¹⁵ United Nations Task Team on STI of the SDGs, Terms of Reference (2015) pgs 1-2.

¹¹⁶ United Nations Technology Facilitation Mechanism, Website, Online Discussion Forum (accessed 10 June 2018).

¹¹⁷ United Nations Technology Facilitation Mechanism, Draft Terms of Reference for an Independent Technical Assessment, pg 1.

¹¹⁸ United Nations Technology Facilitation Mechanism, An Online Platform for the UN Technology Facilitation Mechanism: Independent Technical Assessment Findings (June 2017).

¹¹⁹ United Nations Department of Economic and Social Affairs, Website, TFM (accessed 10 June 2018).

¹²⁰ United Nations, Terms of Reference for the UN Interagency Task Team on STI for the SDGs (22 October 2014) pg 4.

¹²¹ 2017 STI Forum Online Discussion, *supra* note 32.

particular the Global Observatory of Science, Technology and Innovation Policy Instruments (GO-SPIN), which provides a comprehensive mapping of national STI policies upon member State request.¹²²

These global-level institutions for STI policy incorporate various accountability standards, which can be generalized to other areas of economic policy as well. The TMF, in particular, provides a number of good governance standards.

First in terms of transparency and participation, the TMF maintains an easily navigable website with independent tabs for each of its main functions. A wide variety of documents are available, including process-related documents, such as terms of reference, meeting minutes, and the technical assessment for the online platform. In terms of participation, the TMF strikes what appears to be a workable balance between the constraints of its mandate and efficiency, and the goal of broad-based participation and input. The formation of an expert group consisting of civil society, the private sector, and the scientific community, assured secretariat support from the task team, allows substantive and sustained input from outside of the UN system while still providing UN resources and support. The task team remains independent and restricted to UN agencies, however it is also clearly linked with other UN mechanisms and external stakeholders in its terms of reference. Participation within the task team is open to any interested UN agencies, however applicants are still required, at a minimum, to justify and define their participation.

These standards can be usefully applied to regional and national planning processes. First, in terms of transparency and participation, the maintenance of a web platform, with process-related documents, provides a level of accountability to external stakeholders. The task-team is uniquely structured to include broad input through an expert-group while maintaining a core team of pen-holders ultimately responsible for the direction of the TMF. The documents establishing the institution also clearly links with other relevant bodies, and explain the TMF's relation with those bodies.

Second, the process behind the technical assessment for the online platform provides a good example of reason-giving. Instead of simply assigning an independent assessor to come up with a proposal, the task team outlined a number of feasible options and defined what would need to be included in the assessment. In turn, the assessment weighed possible options, giving reasons for and against each, including costs and benefits, as well as potential management structures. This practice could also usefully be applied to economic development planning, where resources permit and there is enough interest by external specialists to conduct an independent assessment. At a minimum, it offers a good example of producing cost-benefit analysis and justifying various policy options, even if such an assessment is conducted in-house.

Finally, the effective review of the TMF is somewhat more diffuse, as it is not a policy in and of itself. There are modes of accountability built in, however, such as the Secretary General's ability to nominate the members of the expert group (as opposed to the task team). To the extent that the objective of the TMF is to globally improve STI policies and the availability of technology in developing countries, progress will be measured, in a broad way, through the indicators associated with STI-related SDGs.

c. Regional-Level STI Planning

Regional-level overall STI planning is limited in the Arab region. Two policies which address STI planning in the context of economic development to meet sustainable development challenges are the SDIAR and the ASFSD, each of which include a component on STI as part of an overall strategy for sustainable development in the Arab region. The process surrounding the adoption of each policy is briefly reviewed below, in an effort to draw out economic governance-related issues and themes.

¹²² United Nations Education, Scientific and Cultural Organization, Website, GO-SPIN (accessed 10 June 2018).

i. Sustainable Development Initiative in the Arab Region (SDIAR)

The Sustainable Development Initiative in the Arab Region (SDIAR) was the main regional policy for sustainable development programs from the early 2000s. The plan covered eight thematic areas, one of which was education, awareness, scientific research, and technology transfer. The initiative is based on a Ministerial Declaration on Sustainable Development issued in 2001, adopted by the LAS through the Council of Arab Ministers Responsible for the Environment (CAMRE).¹²³ The initiative covers STI policies in a general way, touching on developing strategies for education and literacy; technology transfer; developing Arab STI capacities; encouraging initiatives to generate environmental information and programs; and urging developed States to fulfill commitments contained in “relevant international agreements.”¹²⁴

The adoption of the SDIAR was shortly followed by an action plan and a set of indicators. The action plan, developed by CAMRE, set out general mechanisms for implementation and monitoring, including a joint secretariat composed of CAMRE, the LAS Economic and Social Council, UNEP, and UNESCWA. Implementation was to be followed up “within the frameworks of” CAMRE and the Joint Committee for Environment and Development in the Arab World (JCEDAR), notably both environmental entities. The action plan called for progress reports through the LAS Economic and Social Council, though with little additional guidance, and it appears only three reports were ever submitted.¹²⁵

The action plan also called for the creation of an indicator set, which became the Arab Sustainable Development Indicator Framework (ASDIF). Initially UNEP led the effort to create this framework, focusing on environmental indicators. The LAS later requested that the set be expanded to encompass economic and social concerns, after which the LAS, in collaboration with UNEP and UNESCWA, came up with a list of 84 voluntary indicators. Six countries volunteered to test the feasibility of compiling the indicators, though no formal reports were ever prepared.¹²⁶

Based on the low uptake, stakeholders agreed to create a guidance document for the compilation of the ASDIF indicators, and to identify a shorter list of 44 compulsory indicators. In response, LAS, UNEP, and UNESCWA produced a set of guidance documents, published in three volumes in 2012.¹²⁷ A working group was established under CAMRE to oversee data collection for the mandatory indicators, however by 2014, the group decided to cease meeting given the fact that virtually no member States were fully complying.¹²⁸

Uptake of the ASDIF was limited. The set of mandatory indicators was only implemented by three countries, and in those cases only partially. Overall uptake of the SDIAR appears to have been limited as well. One UNESCWA report found that only two member States had used the SDIAR indicators as the basis for their own monitoring and evaluation frameworks, and in consultations with experts, few mentioned the ASDIF without prompting, suggesting it was not a prominent consideration in national development evaluation frameworks – this despite the preparation of detailed guidance on ASDIF compilation and the preparation of a shorter list of compulsory indicators.¹²⁹

The limits of the SDIAR and the accompanying ASDIF can be attributed to a number of process-related factors. One is that the LAS proved to be an effective consensus-builder, but has had limited capacity to implement its declarations and initiatives, even though the SDIAR had the highest-level political backing.¹³⁰ This was in part due to the characterization of sustainable development as an environmental issue. This was demonstrated by the fact that although the SDIAR covered STI issues, the initial indicator set, prepared by

¹²³ League of Arab States, *The Sustainable Development Initiative in the Arab Region* [hereinafter SDIAR] pg 1.

¹²⁴ *Id.* at pg 2.

¹²⁵ Ibrahim A. Gelil, *The Sustainable Development Initiative in the Arab Region: Third Progress Report* (LAS, October 2011) pg 6.

¹²⁶ Robert Smith et al., *Measuring Sustainable Development in the Arab Region: A Review of Country Experiences and Recommendations for Monitoring and Evaluation Post-2015* (E/ESCWA/SD/2015/Technical Paper.1) pgs 9-10.

¹²⁷ *Id.* at pg 10.

¹²⁸ *Id.*

¹²⁹ *Id.* at pgs 10, 23, 17.

¹³⁰ *Id.* at pg 14.

UNEP, was focused on environmental issues. Oversight of implementation appears to have been delegated to CAMRE and JCEDAR within the LAS, with no clear cross-cutting mandate, making it difficult to coordinate across sectors and ministries and address cross-sectoral issues like poverty or trade.¹³¹ Another issue was that the plan allocated no additional funding for implementation,¹³² instead relying on “available resources in the Arab countries, in the relevant Arab regional and international organizations, and in the Arab regional and international financial institutions.”¹³³

One additional problem identified was the capacity of national institutions to report against the proposed indicator framework. Given the mixed results reporting against the MDGs, the adoption of a set of 84 indicators was perhaps overly ambitious. Member States indicated that the available data was insufficient, and financial resources and expertise inadequate, to meet the reporting requirements. The low uptake also reflected deficiencies in national governance – with some national agencies refusing to release data – and an overall lack of domestic legislative frameworks around data collection and monitoring.¹³⁴

Finally, it should be noted that the original SDIAR contained no clear time frame, measurable goals, harmonized reporting format, indicators to measure progress, or action plan.¹³⁵ The action plan and ASDIF were adopted subsequently, and the ASDIF was never adopted as the official indicator set for measuring the progress of the SDIAR.

The SDIAR nevertheless functioned to mobilize resources, bring the idea of sustainable development to the fore, and highlight priority areas within the economic, social, and environmental development spheres. In terms of economic development, the SDIAR served as a general outline of goals and priority-areas, including STI. A number of lessons can be drawn from the process that can usefully be applied to regional and national economic development planning processes. First, in terms of transparency and participation, besides one UNESCWA report touching on the ASDIF, there is little publicly available information concerning the process of adopting the SDIAR and its implementation.¹³⁶ There does not appear to be any publicly available centralized repository for relevant documents, for instance maintained by the secretariat established in the action plan. As mentioned in Part III, transparency entails a positive obligation to make documents and information available, and to actively engage with stakeholders. This can include maintaining a repository of documents online, undertaking rounds of notice-and-comment periods to solicit and incorporate feedback, or other mechanisms, depending on the subject and breadth of the proposed policy.

In terms of reason-giving, one UNESCWA report suggests a factor potentially limiting the uptake of the indicator framework was a lack of conceptual underpinning.¹³⁷ The primary SDIAR document potentially suffers the same shortcoming, particularly as there are no available accompanying documents explaining the choices of themes and priority areas. In future iterations and economic policy documents actualizing the priorities in the SDIAR, it will be important to, where feasible, make available background documents related to the decisions that went into an adopted version.

Finally, effective review was curtailed by the limited uptake of the ASDIF, and unclear implementation framework for periodic progress reports. Policy making can thus be improved by incorporating an indicator framework directly into a policy, or, where this would be difficult due to the number of actors contributing, by delineating the responsibility to come up with an action plan and indicator framework within the main policy document. Additionally, where there is some assurance of future resources for monitoring, it can be useful to delineate responsibility and timelines for periodic progress reports.

¹³¹ United Nations Economic and Social Commission for Western Asia, Presentation, Enhancing Arab Regional Institutions for Sustainable Development: Enhancing Integration and Accelerating Implementation (30 May 2013) [hereinafter UNESCWA Presentation] pg 5.

¹³² Ibrahim A. Gelil, Presentation, Toward an Updated SDIAR (2013) pg 10.

¹³³ SDIAR, *supra* note 123, at pg 1.

¹³⁴ Smith, *supra* note 126, at pgs 10-11.

¹³⁵ Gelil, *supra* note 132, at pg 10; See also UNESCWA Presentation, *supra* note 131.

¹³⁶ Note the author could not find a copy of the action plan online. It is possible more documents are available and searchable in Arabic.

¹³⁷ Smith, *supra* note 126, at pg 18.

ii. *Arab Strategic Framework for Sustainable Development (ASFSD)*

The SDIAR has since been updated as the Arab Strategic Framework for Sustainable Development (ASFSD), proposed in 2014, which aims to address some of the gaps in the SDIAR, to meet new challenges in the region, and to incorporate the outcomes of the adoption of Agenda 2030 and the SDGs.¹³⁸ Education, science, and technology are again included, this time as two sections under the heading: “persisting and ongoing challenges.”¹³⁹ The content goes into greater depth, outlining the importance STI and encouraging more specific regional steps, such as allocating increased shares of GDP to research and development, strengthening the science-policy interface, and exploring technology transfer.

The overall framework is also improved in a number of ways. For one, it is more coherent, dividing issue areas in to those creating an enabling environment for sustainable development, emerging priorities, and persisting issues. It connects to updated frameworks and mechanisms, such as the SDGs and HLPF. The framework sets specific financing targets for international support and refers to specific financing mechanisms. It also makes a number of concrete recommendations, including encouraging the region to “consider elevating the overall responsibility for sustainable development agenda setting, policymaking and monitoring of progress to the highest political level within the LAS,”¹⁴⁰ which is significant in light of the assignment of SDIAR follow-up to environment-mandated entities.

Importantly, and in contrast to the SDIAR, the ASFSD reportedly also includes a formal set of indicators for measuring progress, though they are not incorporated into, or referenced in, the main document. The proposed list remains very long, however, at 83 indicators (one fewer than the list associated with the SDIAR), with some indicators as yet unclearly defined.¹⁴¹ As with the SDIAR indicators, the proposed list does not have a clear conceptual underpinning, which could likewise limit uptake.¹⁴²

Other issues from the SDIAR have also been repeated with the ASFSD. There are no resources allocated within the proposed ASFSD, for instance, depending again upon “available resources.”¹⁴³ The document “envisage[s] that the strategic framework will need to be supported by an action plan or similar document outlining key policy and capacity building programs at the regional level.”¹⁴⁴ However, no specific document is referenced, and as yet no action plan appears to be publicly available, an absence perhaps noted again in the outcome report of the 2016 AFSD, in which a participant stressed the need for an “Arab road map for the implementation process that is based on the [ASFSD]...”¹⁴⁵

As with the SDIAR, few documents regarding the process of formulating the ASFSD are publicly available. Given the limited documents available, it is difficult to say how participatory the process was. As with the SDIAR, however, the document was reportedly coordinated through the environmental sections of the LAS and UNESCWA, potentially limiting its broad uptake. Reason-giving is somewhat improved in the main document, which devotes greater attention to the importance of sustainable development, and specifically STI. The proposed indicator framework, however, suffers the same unclear conceptual underpinning. Finally, in terms of effective review, it is still too soon to say how this will be carried out. The status of the indicator framework remains unclear, though the initial proposal appears too long and in parts ill-defined. The ASFSD requests member States to report on SDG progress,¹⁴⁶ but does not appear to contain any mechanism for reporting against the ASFSD, either by States or at the central level.

¹³⁸ Ibrahim A. Gelil, Proposal for an Arab Strategic Framework for Sustainable Development (E/ESCWA/SDPD/2014/WG.1/5) [hereinafter ASFSD] pgs 2-3.

¹³⁹ *Id.* at pgs 9-10.

¹⁴⁰ *Id.* at pg 4.

¹⁴¹ Smith, *supra* note 126, at pgs 23-24.

¹⁴² *Id.* at pg 24.

¹⁴³ ASFSD, *supra* note 138, at pg 3.

¹⁴⁴ *Id.* at pg 3.

¹⁴⁵ United Nations Economic and Social Commission for Western Asia, Outcomes of the 2016 Arab Forum on Sustainable Development (E/ESCWA/29/7, 2016) para 14.

¹⁴⁶ ASFSD, *supra* note 138, at pg 15.

A number of lessons can similarly be applied to economic development policies in light of the ASFSD adoption process. In terms of transparency and participation, any efforts to translate the priorities identified in the ASFSD into more action-oriented thematic and technical policies should focus on publishing available process-related documents and incorporating input from as many stakeholders as feasible. As with the SDIAR, it is important, to the extent feasible, to analyze the costs and benefits of various options, to highlight complementarities and trade-offs, and to publish related background documents giving stakeholders the ability to understand the considerations that went into the policy, thereby fulfilling the standard of reason-giving. Finally, the process reviewed shows the advantage of incorporating or providing for an indicator framework and action plan in the main policy document, so as to ensure effective review.

d. Other Regional STI Initiatives

Aside from the overarching regional sustainable development policy frameworks, which are focused on general-level identification of priorities, a number of complementary STI-focused initiatives continue to be undertaken at the regional level.

Regional agencies coordinate a number of STI initiatives. The AFSD is an important forum in this regard, bringing together a broad range of State and non-State actors to connect and discuss development challenges, including STI, which was highlighted by participants in the 2018 AFSD.¹⁴⁷ The AFSD has strived to be participatory and transparent, engaging a variety of government, civil society, and academic actors, as both participants and panelists, and making documents readily available on its website. This has made it a key forum for collaboration across different sectors.

Providing an umbrella to the thematic regional planning initiatives, UNESCWA's Economic Development and Integration Division (EDID) supports regional governments with their national development planning, and specifically builds capacity on economic governance concerns that affect the formulation, implementation, and effectiveness of sectoral and thematic policies. For example, in collaboration with the OECD and UNCTAD, UNESCWA focuses in on competition policy challenges (e.g. product market regulation and consumer protection, in terms of quality and price of goods and services) as a priority for legislative and regulatory reform to improve the conditions for economic development, and to set the framework for competitiveness in emerging sectors, such as STI.¹⁴⁸ In addition, UNESCWA's Technology for Development Division (TDD) continues to foster collaboration, publish on STI themes, provide technical assistance, and build STI policy-making capacity in the region. In 2018, for instance, in collaboration with the interagency task team of the TFM, described above in Part IV.b, the TDD held a first-of-its-kind specialized training programme on innovation policies, open to mid- to high-level government representatives and regional experts. As with the AFSD, the training made relevant documents readily available online and involved a wide variety of participants. These initiatives highlight just a few good process-related practices, particularly in terms of transparency and participation.

V. Recommendations and Conclusion

This paper began by outlining some of the economic development challenges confronting the Arab region. One of the greatest challenges remains the unemployment rate, specifically among youth and among women. The unemployment rate cannot be addressed, however, without looking at certain characteristics of economies in the Arab region, especially the disconnect between education supply and labor demand; the persistent structural problems of over-reliance on oil and resource extraction; the concomitant rentier system – in which rents are distributed in exchange for political acquiescence; and the resulting bloated public sector.

¹⁴⁷ 2018 AFSD Key Messages, *supra* note 7, at pg 8.

¹⁴⁸ Denise Sumpf & Vladimir Isaila, The Strength of Competition Policy and Regulation in the Arab Region: Application of OECD Indicators to Selected Arab Countries in 2015 (E/ESCWA/EDID/2016/Technical Paper.2); Denise Sumpf & Dina Waked, *Economic Governance Series: Competition and Regulation in the Arab Region* (E/ESCWA/EDID/2015/5)

An effective STI policy has the capacity to address these issues. By investing in human capital through quality and relevant education, supporting and providing infrastructure for research and development, and fostering high-tech industry and SMEs, among other interventions, an STI policy can boost economic growth, position the Arab region to take full advantage of the “Fourth Industrial Revolution,” and narrow the education-labor demand gap. Given the interconnected nature of the global economy and the scale of the challenges, regional cooperation in this regard is imperative.

The paper next explained the growing recognition of the importance of governance to development planning. The field of global administrative law (GAL) is a helpful conceptual underpinning to give greater substance to the concept of governance as applied to policy-making. GAL provides an analytical framework in the form of modes of accountability drawn from the existing field of domestic administrative law.

Finally, the paper surveyed a selection of existing international and regional development policies concerning STI – a subset of economic development policy of particular concern to the Arab region for the reasons described above. The paper looked at the process of policy adoption rather than substance, drawing examples of good practice and highlighting areas to focus on in developing and implementing economic development policies. To accomplish this, the paper relied on the framework of accountability mechanisms outlined in Part III: transparency, participation, reason-giving, and effective review.

This section concludes with a list of recommendations drawn from the above analysis to incorporate administrative-law accountability standards and improve economic development policy-making:

a. Utilize Aarhus Standards as a Guideline

The Aarhus Convention¹⁴⁹ from 1998 is unique in that it leverages a distinct culture of EU bureaucratic expertise to ensure compliance, and reaches as far as it does because environmental action (or inaction) can clearly be understood as transnational in nature, impinging upon public rights. As such, an obligatory treaty-based Aarhus-like convention for economic development – or specifically STI – policies would be neither feasible nor necessary. STI policies do not entail the same transnational public rights and concerns, and the transnational EU administrative architecture that makes the Aarhus Convention effective in Europe does not exist in the Arab region. The standards contained in the convention, however, offer useful guidelines for accountability standards, and provide an aspirational framework of what is possible in terms of good governance.

Regional policy-making bodies – especially secretariats of sector-specific development plans, where they exist – as well as domestic regulatory regimes implementing regional plans, could commit to certain Aarhus standards in a voluntary manner. Such standards include 1) transparency, namely committing to provide relevant information on the state of economic affairs (for instance, available information on public programs for research and development) and on policy formation, upon request and within a certain timeframe; 2) participation, namely committing to allow the affected public and civil society groups to comment on proposals, which comments are to be taken into account; 3) reason-giving, namely providing information on final policy decisions, including the information behind those choices and how policy-makers took into account public comments; and 4) effective review, namely some recourse for the public should those responsible fail to comply with the previous standards of participation, transparency, and reason-giving – though within a voluntary framework this could be a fairly light requirement.¹⁵⁰

¹⁴⁹ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998).

¹⁵⁰ European Commission, *supra* note 83.

b. Adopt International and Regional Best Practices

As with the Aarhus Convention, it is not realistic to expect a regional or sectoral policy-making process to commit to the same rigorous level of transparency, participation, reason-giving, or effective review as might be found in a body like the TMF or IAEG-SDGs. These bodies have abundant resources in terms of funding, staff, and expertise. Nevertheless, the policy processes and institutions outlined above offer helpful models and examples that can at least partially be incorporated into future policy-making processes, especially sectoral policies where domestic administrations are in charge of policy-formation and implementation. A number of good practices can be described within the accountability framework outlined above: 1) in terms of transparency, a dedicated website, or page within an organization's website, making available repositories of documents, including those related to process (terms of reference, meeting minutes, concept notes, presentations, and so forth), as maintained by the IAEG-SDGs, TFM, and AFSD; 2) in terms of participation, a moderated online discussion forum to engage global civil society, as exemplified by the global STI forum; or notice-and-comment procedures, involving rounds of public consultations with stakeholders, facilitated by the pen-holder, as demonstrated by the IAEG-SDGs; 3) in terms of reason-giving, an independent technical assessment of the costs, benefits, and governance structures of various policy options, as demonstrated by the TFM; 4) in terms of effective review, appropriate modes could include peer reviews, voluntary national reviews, a registry of commitments, third-party external auditing, internal reports, parliamentary reviews, budgetary reviews, or international monitoring.¹⁵¹

c. Redouble Efforts to Improve Data Collection

A lack of data collection capacity in the Arab region is a major impediment to effectively reviewing the SDGs and associated sustainable development policies. This was recognized by participants at the 2018 AFSD.¹⁵² One of the priorities to enhance data collection is to promote national ownership and provide technical, financial, and capacity-building support to national statistics offices (NSOs), the primary collectors of SDG data. There is significant momentum around this issue since the adoption of the SDGs and an associated "data revolution" initiative.¹⁵³ The Arab region should seize on this moment. Additional measures to improve data collection could include transparency and access to information policies; a regional statistics platform to coordinate among NSOs and set regional standards; and an observatory on sustainable development data to fill the knowledge gaps.¹⁵⁴

In sum, this paper has explored the importance of economic governance and applying its principles exemplary to the field of STI policy as it is of particular relevance to sustainable development in the Arab region. Efforts to achieve better governance mechanisms can be substantiated by borrowing from global administrative accountability mechanisms of transparency, participation, reasoned decision-making, and effective review. Focusing on procedural improvements, this framework offers a helpful tool to improve substantively different (ie. sectoral) policy-making and implementation processes in the Arab region, all to reach specifically the regional sustainable economic development objectives and, in general, contribute towards meeting the SDG targets.

¹⁵¹ Abdel-Malek, *supra* note 98.

¹⁵² 2018 AFSD Key Messages, *supra* note 7, at pg 1.

¹⁵³ United Nations Global Pulse, Website, Data Revolution Group (accessed 10 June 2018).

¹⁵⁴ Arab Sustainable Development Report, *supra* note 12, at pg 179.

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