Integrative Public Policy on Sustainable Development in Egypt's Mega Projects

Salwa Thabet Mekky, Faculty of Economics and Political Science FEPS,
Future University in Egypt, Egypt
Noura Eissa, Faculty of Economics and Political Science FEPS,
Future University in Egypt, Egypt

The IAFOR International Conference on Arts & Humanities in Hawaii 2023
Official Conference Proceedings

Abstract
The article explores the role of integrative public policy on delivering sustainable development by assessing the performance of public mega projects. Research methods use a literature review analysis on previous articles, policy and country briefs, and theory to discuss integrative public policy in a sustainable development context. The article engages in a case study analysis on Egypt's Decent Life (Hayah Karima) Initiative launched in 2019 to improve the standard of living for the neediest social groups, villages in specific; the objective is to compare how and why the evaluation of public policy could be embedded within country mega projects to sustain development. The article proposes answers to the following research questions: How is integrative public policy translated through country mega projects to support sustainable development? How could policymakers ensure sustainability mobility in mega projects, considering Decent Life, as an example? What indicators are used to measure the effectiveness of public policy on embedding sustainable development in mega projects? The hypothesis emphasises that mega project performance is dependent upon integrative public policy, collective affective conditions, and sustainable development mobilisation techniques. Findings propose a set of indicators, assessment tools, and a strategic management criterion, to evaluate how effective the Decent Life initiative is and to consider it a reflection of Egyptian public policy on sustainable development. Lessons learned are extracted from Egypt's experience.

Keywords: Integrative Public Policy, Inclusive Growth, Social Protection, Rural Development, Resilience

1. Introduction

Social protection programs are sets of governmental policies managed under the authority of ministries, with possible financial and/or technical support and collaboration from international organisations, development organisations or private organisations, which assist individuals and societies manage risks and vulnerabilities leading to protection from poverty. It is an initiative taken to adapt to the economic crisis, targeting the socially vulnerable (Yemtsov et al, 2018). The monitoring of social protection programs can lead to the execution of mitigation strategies, the implementation of shock-responsive legal regulations and new initiatives, programs, or committees (Márquez et al., 2018). The instrumental function of social protection is human investment to sustain basic levels and of assistance to individuals (Fiszbein et al., 2014).

Social protection mega projects are implemented through the launching of social protection programs to the socially vulnerable beneficiaries. Adaptive social protection (ASP) builds resilience among the vulnerable by investing in their capacity to prepare for, cope with and adapt to shocks (World Bank, 2021). Decent Life DL (Hayah Karima in Arabic) is an example of an adaptive social protection project (ASP) as its long-term goals are to build resilience among the vulnerable by investing in their capacity to prepare for, cope with and adapt to shocks (World Bank, 2015). DL is an Egyptian national mega project for developing rural villages within the framework of the state's vision for sustainable development to alleviate poverty, improve living standards and increase efficiency for the neediest community groups.

The article proposes answers to the following questions: How is integrative public policy translated through country mega projects support to sustainable development? How could policymakers ensure sustainability in mega projects? What indicators are used to measure the effectiveness of public policy on embedding sustainability in mega projects? The hypothesis emphasises that mega project performance is dependent upon integrative public policy, collective action, and sustainability of projects and sustainable development. Findings propose a set of indicators and assessment tools to evaluate how effectiveness of the DL and to consider it a reflection of Egyptian public policy on sustainable development. Lessons learned are extracted from Egypt's experience. The article is significant as it provides an entry point for researchers to understand sustainability within a collaborative framework, rather than as a single entity, be that a program, delivery system, governance method and/or social protection mega project.

2. Research Methods

The article uses theory and case study analysis to identify how to build and assess in application integrative public policy, resilience, and sustainability, within social protection mega projects.

The article is divided into three sections. Section A proposes a conceptual framework on integrative public policy, sustainability via resilience by examining how current social protection projects can be maintained by providing indicators for assessment. Primary sources include official documents by various ministries and the Egyptian government on DL such as "The National Project to Develop Egyptian Countryside - Implementation Profile until July 2022." Secondary sources are derived from Google scholar and Scopus databases. The literature searches yield a small amount of information, so broader snowball techniques

are used, including backwards tracing of citations and reference lists, and forward tracing of citations and documents that cite the searched references. This signifies the article's conceptual framework in offering new perspectives on sustainability and social protection mega projects. Section B focuses on integrative public policy by discussing DL integrative interventions and inclusive multidimensional organisational structure. Section C assesses sustainability indicators of DL, challenges, and actions taken proposing an integrated project delivery approach. Finally, policy recommendations and future research projections are discussed.

Section A: Conceptual Framework

3. Public Policy Integration

This section reviews literature on policy integration (PI) to identify key success factors and effective performance measures via investigating a real case study and lessons learned.

Meijers and Stead (2004) asserted the literature gap on public policy integration as a concept. Previous research focused on sectoral policy coordination and cooperation, somehow serving as a foundation for knowledge of PI. Although PI and policy coordination are complements but they are different; PI is not the same as adjusted sectoral policy, specifically the cross-cutting, holistic, and/or joined up government nature of the policy objective. PI is characterized as comprehensive, consolidated, and consistent and goes beyond the bounds of established policy fields, the management of cross-cutting policymaking issues but not to coincide with institutional responsibilities of individual departments. Meijers and Stead (2004) highlight the policy process challenges due to the increased number of actors involved, the emergence of the information society, increased emphasis on public participation, and the growing involvement of non-governmental organisations, pressure groups, and agencies. The complex, dynamic nature, and cross-cutting issues of ecological, socio-economic, and political conditions and the pursuit of sustainable development, pose new challenges to policy making. Overlapping policies often lead to inefficient or ineffective solutions and new problems and therefore placing PI as an appropriate response to institutional mismatch and a transition to sustainable development. Mekky (2021b) links between integrative public policy and institutional structural reform to achieve community transformation by proposing a new public management NPM global perspective as a model for administrative reform.

The Organization for Economic Cooperation and Development (OECD) uses the term policy-coordination as a key driver of policy coherence in contribution to sustainable development identifying and mitigating divergence among priorities and policies of the different sectors on national and international levels promoting mutually supporting actions across both sectors and institutions. It appears in many disciplinary literatures and cuts across many institutional as well as social domains (Bogdanor, 2005). Philipp and Maggetti (2020) call for increased integration and coordination of policies and administration as a response to new policy issues. PI and coordination reforms might differ across time and countries; newly integrated policies most likely require increased coordination among administrative units. Trein et al (2021) were concerned with conceptual fragmentation of PI as an uncommon concept term.

The joined-up government concept was first introduced in 1997 by Tony Blair government to deal with the "wicked" issues across boundaries of public sector organisations, administrative levels, and policy areas (Christensen and Laegre 2022). Christopher Hood introduced the

concept of Joined-Up Government as coined in the 1990s for coordination doctrine which suggests the interconnection and complementarity of all parts of the government as imperative to operate single faced for the public and one unit on multiple interrelated issue (Bogdanor 2005). In line with Hood, Christensen and Laegre referred to integration with the term “Whole-of-Government " in 2007 using a holistic concept.

Ansell et al (2007) conducted a meta-analytical study of the existing literature on collaborative governance for the purpose of exploring a contingency model of collaborative governance. The authors introduced tips to create collaborative governance bringing public and private stakeholders together in collective forums with public agencies to “engage in consensus-oriented decision-making”. Key success factors have been identified to be dialogue, trust building, and commitment as well as shared understanding. The concept of "Functional Regulatory Space" (FRS) has been developed to analyse the new forms of State action addressing “wicked” problems. FRS using a policy integration approach simultaneously cuts across several policy domains such as climate change and economic, security, health, and immigration as well as institutions and levels of government. It suggests integrating previous policy theories that focused on "boundary-spanning regime," "territorial institutionalism" or multi-level governance (Varone et al, 2013).

4. Sustainability in Social Protection Mega Projects

This section proposes a conceptual framework for assessing potential long-term measures of social protection mega-projects, by exploring sustainability and resilience indicators on three levels: project-level, delivery-level, and inclusive growth.

4.1 Operational Resilience

Resilience requires government reform to implement policy change, to correct market failures, ensure inclusive access and distribution, ensure economic rescue packages for vulnerable groups, and to implement change (Duflo 2021). A resilient system has flexibility in its absorptive capacity and ability to minimise the adverse effects of crises. The ‘bounce back faster’ concept implies the long-term capacity to prepare for, cope with, adapt to and recover from shocks (Schipper and Langston, 2015). Resilient social protection projects help societies achieve resilient living standards with the ability to resist, absorb, accommodate, and manage change. Several studies use the BRACED 3As (anticipatory capacity, absorptive capacity, and adaptive capacity) climate change response program as a model for recovery (Dirkx, 2019). Anticipatory capacity is the preparedness, pre-crisis, of social programs to predict and reduce adverse effects through planning and proactive action, either by avoiding or minimising the vulnerability (Eissa 2022). Absorptive capacity is the ability for social protection delivery programs to absorb and cope with crisis ensuring individuals’ livelihoods and basic needs, using the available domestic resources (Hudner and Kurtz, 2002). Adaptive capacity is the ability of social protection programs to learn from disaster and adjust to multiple long-term risks, to reach a desired state regardless of changes in conditionalities and to reduce the probability of harmful outcomes in either occurrence or magnitude (Malone, 2009).

Operational resilience requires frequent shifting and effective adaptation through the provision of social assistance to beneficiaries using social safety nets (Nixon, 2019). Social safety nets have positive impacts on households’ capacities to cope with crisis, supporting food security and lessening the need to resort to negative coping alternatives (Ulrichs et al,

2019). Expansionary measures such as the expansion of state-led social safety nets to promote human centred approaches to create productive employment during crisis increasing the capacity to enrol new beneficiaries, usually implemented with the support of international organisations as key providers of social assistance (ILO, 2019). Previous work uses a developmental evaluation of the World Food Program in response to Covid-19, justifying the increased need, the challenges of meeting existing program commitments for beneficiaries who are already vulnerable and food insecure, sustaining the delivery of existing programs and scaling up transfers and coverage (Slater, 2022). Social safety net programs during covariate shocks support households through potential leverage responses such as vertical expansion (temporary increase of the value or duration of a social protection intervention to meet additional needs) and horizontal expansion (temporary inclusion of new beneficiaries from disaster affected communities) (O'Brien et al., 2018).

4.2 Community Transformation

Resilient social protection programs which transition into developmental programs enhance community capacity building and community transformation. Community capacity building is a poverty alleviation tool and an enabler of the sustainable development goals focusing on impoverished individuals' abilities to build skills, knowledge, and competences to support their own lives (Eissa 2020). Policymakers transform communities into more sustainable ones through enhancing human capacities and capabilities (Saab et al., 2016). Community capacity building is a welfare technique, and it is the responsibility of policy makers to secure individual needs in parallel with building confidence and preserving dignity (Banarjee et al., 2011). Community transformation is a maintenance tool for preserving existing social protection programs, and readjusting projects which tend to drift towards social assistance only.

4.3 Sustainability in Social Protection Project Delivery

Effective government programs can be sustained by understanding when, where and how the technical and operational features support sustainable delivery.

Social investment is the on-budget government spending on social protection programs and is dependent upon on institutional capacity and redistributive programs. The simplest redistributive programs are those that entitle the identified poor to some form of cash stipend to provide a certain standard of living and are unconditional on any behaviour (Schady et al., 2017). The International Monetary Fund (2019) highlights the necessity of redirecting fiscal policy to promote inclusive growth by strengthening and upgrading the social protection delivery chain, specifically during the selection process, conducting a needs and conditions assessment for vulnerable groups, enrolling the target groups eligible for the program and notifying them of decisions, providing the target groups with the benefit or service, periodic reassessment and, finally, managing exit decisions and outcomes.

Experimental design is used to diagnose root problems and provide predictions of social protection delivery programs. Geographical targeting includes the use of poverty mapping and climate data to transfer resources to vulnerable villages, districts, and regions. Proxy means testing (PMT) predicts income and consumption level using surveys to collect demographic and asset data from households. Self-targeting focuses on the social inclusion of individuals through an application process and applying barriers to reduce the chances of rich households accessing programs. Community-based methods involve selecting and identifying

the vulnerable. In normal times, governments structure their targeting methods to limit their spending during the planning process by, for instance, substituting a population PMT with a selected sample PMT (Beath et al., 2013). Alatas et al. (2012) emphasize the community methods versus PMT, depending on whether one wants to specifically target a hard measure of poverty such as income, or a soft measure, such as perceptions. Examples include Mexico's Progresa PMT program, which determines eligibility in geographically targeted areas only (Schultz, 2004). Indonesia's Data Collection on Social Protection Program (PPLS) uses community-based methods to determine the number of households which need to fill out PMT surveys for efficient needs assessment (Alatas et al., 2012). Kenya's cash transfer for orphans and vulnerable children integrates geographical targeting and community targeting to determine an efficient budget.

In crisis times, social service delivery involves an immediate response using targeted efficiency, leakage reduction in the selection process and crisis mitigation solutions. The multilayer targeting formula is a technique used to enhance the efficiency of cash transfers. For example, from 2015 onwards, Egypt's Takaful and Karama cash transfer delivery program (TKP) has selected beneficiaries based on geographical targeting using poverty maps, PMT and categorial criteria (Breisinger et al., 2018). Alarming signals that create negative perceptions on the part of beneficiaries include unsustainable maintenance of social protection transfers, the cancellation or irregular disbursement of benefits, a decrease in the number of beneficiaries and an increase in the demand for support (Berg et al., 2021). Examples of social assistance delivery readjustment during Covid-19 include the shift to digital channels and registers accompanied by the search for emergency aids and multilateral development funding agreements to implement such changes in, for example, Brazil, Chile and India. Jordan, meanwhile, created new financing and coordination mechanisms (Lakner et al., 2021).

Indicators in Table one are suggested to ensure sustainable social investment in social protection projects; indicators are applicable each year, post phase completion or in a pre-during-post crisis scenario.

Table 1: Social Investment Reallocation and Sustainability Indicators

On the project Level
1. Social insurance coverage and capacity to expand to larger groups in the population.
2. Subsidy reform to increase government budget savings, redirected towards strengthening social safety nets.
3. Institutional capacity reform in both physical and online.
On a project delivery level
1. Basic services projection.
2. Number of beneficiaries during the crisis, in comparison to pre and post.
3. Rate of availability and access pre and post, or in each phase.
On a community level
1. Number of schools, rate of education enrolment, school class density, number of health clubs and youth centres and number of youths registered versus actual engagement.
2. Quantity and quality of health services and health clubs.
3. Number of housing units with flexible mortgage plans.
4. Degree of constructing environment-resistant infrastructure such as street lighting, road networks, electricity, drinking water, sewage, and new roofs for dilapidated houses.
5. Evaluation of resilient communication services such as mobile network towers and government and school buildings installing fibre optic cable networks.
6. Unemployment rates (in affected areas, at the micro and macro level, pre-during-post crisis), illiteracy rates, and the availability of land on which potential business activity could be established.

Source: The authors.

4.4 Indicators to Sustainable Targeting and Delivery

Program sustainability is maintained when policymakers are capable of distinguishing between acceptable negligible immediate post-disaster delays in the delivery of social protection programs and long-run delays in social protection delivery systems that become increasingly serious. Both the 2015 earthquake and 2017 floods in Nepal highlighted a causation challenge associated with assessing the sustained delivery of social assistance in crisis situations. Immediate delivery delays of social security allowances were negligible, but an issue later when beneficiaries discovered they were excluded from disaster relief beneficiary lists.

- Sustenance of the number of recipient households through consistency and punctuality in the timing, size, and frequency of delivery according to the planned disbursement timetable.
- Identification of the technical challenges of social protection systems that sustain program delivery.
- Revision of schemes for social protection delivery systems to avoid beneficiary exclusion errors.
- A new mind-concerning the longevity of social protection assistance as a community transformation program.

4.5 Inclusive Growth: A Sustainability Indicator

According to the OECD, the dimensions of inclusiveness consist of poverty reduction, unemployment reduction and inequality reduction. Table (2) illustrates the target indicators of resilience and the mechanism, institutional reform, and collaboration for embedding sustainability policies in development programs. Table (3) is an example of a framework when choosing beneficiaries to check that social protection programs are implementing the elements of inclusive growth. Small scale agricultural farmers are used as an example; this could be applied to women, migrants, etc.

Table 2: Resilience indicators for sustainable social protection programs at the macro level

Indicator of Resilience	Mechanism	Institutional reform	Collaboration, funding, multilateralism
A community resilient to crisis	Dynamic communication Increasing awareness as a priority, evidence based Introducing digital targeted solutions to enhance awareness among youth	Strengthening institutional capacities and human resource capabilities Social protection research platform	Consolidated partnerships with NGOs, ministries, and funding agreements with UN development programs
Citizens well-aware of energy efficiency and the green economy	Achieving a clean energy revolution Diversification of employment opportunities through the construction of renewable energy projects The labour force acquiring green skills	Green transformation by providing budgetary support for energy sector development and investment in renewable energy Improving management and operational efficiency in the energy sector such as electricity and green support programs Promoting government commitment to innovation and equal opportunities	Funding for energy sector budgetary support programs Funding from development banks to support green growth programs Partnerships with ministries and factories for green investment and green transformation
Healthy, resilient, well-nourished individuals	Providing and distributing subsidized and nutritious food	Easier access to vaccines and medicines Progress with structural reform Building trust between citizens and the government Moral support for poor families	Comprehensive health insurance project development cooperation agreements Partnering with development financing for agreements supporting the healthcare sector World Bank's Fast Track Covid-19 Facility Civil society participation

Source: The authors.

Table 3: Small scale agricultural farmers as an example

	Inclusive growth			Collaboration and multilateralism
	Poverty alleviation	**Reducing unemployment**	**Reducing inequality**	
Agricultural development	Reach of project to rural areas Promotion of land consolidation	Reducing unemployment (child, female, and male) Market expansion	Improved access to community schools Improved infrastructure	Ministries UN International Fund for Agricultural Development (IFAD) Development agencies
Community empowerment	Provision of job opportunities New market channels that link three villages	Vocational training, access to finance and markets Increasing income and employment opportunities	Improved access to rights and knowledge Transforming community schools into integrated service centres	Countries partnering for community empowerment projects supporting families and primary school pupils Social welfare projects Empowering communities with the United Nations World Food Program
Agribusiness and agri-food business sector development	Food markets Supply chain management Marketing and logistics opportunities and guidance	Enhancing engagement of small and medium value chain enterprises	Advanced marketing and logistics	Financing agreements with the European Bank for Reconstruction and Development (EBRD)

Source: The authors.

Section B: Case Study on Decent Life and Integrative Public Policy

5. DL Integrative Interventions

In recent years, social protection policies have been put on top of the Egyptian government's agenda with President Abdel Fattah El Sisi announcing the launch of an unprecedented mega initiative entitled "Decent Life" (DL) aimed at developing the countryside all over Egypt. The project adopts an integrative approach in implementing comprehensive sustainable multidimensional developments to contribute to improving quality of life and alleviate social suffering of the most vulnerable and fragile communities; especially due to severe economic turmoil triggered during the pandemic. 515 billion Egyptian pounds have been allocated to Decent Life over three years to achieve the following five integrative interventions:

1. Upgrade infrastructure effectiveness to ensure the availability and accessibility of efficient provision of services concerning drinking water, sewage, electricity, natural gas networks, roads pavement, canal and waterway lining as well as waste management.
2. Raise efficiency of social development services to establish new schools and build capacity of existing ones, develop health units and centres as well as hospitals in

conformance with comprehensive health insurance model, to upgrade youth centres and sports facilities.

3. Promote sustainable communities by upscaling small and microbusinesses, promoting labour intensive construction projects giving priority to local contractors, establishing crafts and industrial complexes/ parks a well as urban markets and promoting reliance on local production and strengthening local supply chains including developing and upgrading feeding industries' facilities, such as irrigation systems, veterinary units, and slaughterhouses.
4. Implement schematic and spatial indicators to follow-up and measure performance and development.

6. Comprehensive Participatory Multidimensional Organisational Structure

A participatory inclusive approach has been adopted during policy agenda setting, implementation, follow –up and evaluation. The project is implemented under the auspices of the State's President, through a Supreme Ministerial Committee headed by the prime minister and leading four integrative workgroups calling for effective coordination, collaboration, and follow-up mechanisms. Youth empowerment through the Egyptian youth voices serving as the main advocates to which the national political leadership responded to then translated by the government into domestic resource mobility projects. Youth involvement during the policy targeting phase included engagement in village project needs assessments and selection. Youth across the different targeted locations volunteered in project activity implementation such as onsite follow-up, training and rehabilitation, awareness, medical services to other aspects of the projects (36,000 volunteers up till December 2022). The following matrix (Table four) illustrates the level of integration the organisation structure within each workgroup and at the macro level across the whole project.

Table 4: DL Integrative Organization Structure

№	Institution	Work Groups			
		1 Infrastructure & Services Projects	2 Economic Development Projects	3 Social Protection Projects	4Schematic & Spatial Indicators
1	Ministry of Social Solidarity	√	√	√	
2	Ministry of Local Development	√	√		√
3	Ministry of Housing	√			
4	Engineering Authority for Armed Forces	√			
5	Ministry of Agriculture		√		
6	Ministry of Industry		√		
7	General Authority for Educational Building	√			
8	Ministry of Petroleum	√			
9	Ministry of Water Resources & Irrigation	√	√		
10	Ministry of Health	√			
11	Ministry of Youth	√			
12	Authority of Small & Medium Enterprises Development		√		
13	Ministry of Planning & Economic Development (Supervisor of the "Decent Life" initiative, affiliated to the Sustainable Development Plan,)				√
14	General Authority for Urban Planning				√

Source: The authors from Ministry of Planning Website (2021) and Ministry of International Cooperation (2021).

Section C: Integrative Public Policy, Integrative Project Delivery and Sustainability Indicators of DL

7. DI Project Strategic Structure and Operational Resilience

The mission of Decent Life (DL) is to develop operational resilience through community transformation by improving quality of life in disadvantaged rural areas, especially with respect to livelihood, community capacity building and clientele satisfaction level.

8. DL Strategic Objectives and SDG Implementation

DL's strategic objectives integrate the 17 sustainable development goals (SDGs) targeting financial, institutional, environmental, social, and economic sustainability. Its strategic objectives are to (1) develop villages infrastructure (water, sanitary, roads, public administration, natural gas, communication) (2) **r**aise the quality of human and environmental development services (3) improve service provision (4) provide economic development opportunities, increase real income of rural inhabitants, and improve their living-standards (5) expand social protection and social welfare to most vulnerable groups living at extreme poverty levels in targeted villages; and **(6) p**romote sustainable development of local administration.

9. Community Transformation Indicators: Quality of Life Criteria for Decent Life

Key performance indicators have been set to manage performance via a quantitative measurement tool to ensure objectivity of evaluation and effectiveness. Six "Quality of Life Criteria- QLC" analyze the quantity and quality outcomes of DL projects in the targeted villages using the following rate indicators: (1) average per capita income (2) availability of job opportunities an improvement (3) health services coverage (4) sanitation services coverage (5) school classroom density and the internationalization of education as a cornerstone for achieving sustainable development (Mekky 2021a) (6) drinking water coverage.

10. Geographic & Timeline Framework

The mega project aims at reaching out to develop more than 4500 villages and more than 28,000 followers where projects are implemented in 175 Centres across 20 Governorates on three phases. It targets over 600 million inhabitants accounting to 58% of the total population divided over three phases: 17% in 2021, 35% in 2022 and 58% in 2023. The project is nationally funded where investments exceed LE 700 billion. In the first phase 1477 villages are targeted (Ministry of Planning 2021).

11. Villages' Selection Criteria

Nine criteria have been set to identify priorities in selecting the neediest rural villages nationwide to reach the most vulnerable, hence ensure an efficient selection process. These criteria include (1) rural population as a percentage of the total population of the centre (2) poor rural population as a percentage of the total poor population of the centre (3) poor population in the poorest 2000 villages as a percentage of the total population of the centre (4) most exporting villages to irregular immigration (5) percentage of female-headed households (6) illiteracy ratio among individuals aged 15 and above (7) ratio of households lacking sanitation services (8) ratio of households lacking drinking water services and (9) ratio of security-sensitive villages.

12. Overview on DL First Phase Outcomes

An outcome-based survey extracted from primary ministerial sources was used to evaluate the projects status until July 2022 and measure progress of the first phase. This part of the study reflects on key performance indicators to measure the success level against targeted objectives.

12.1 Efficient Allocation of Social Investment on a Project Level (Sustainability Indicator)

Consolidated results assert that 53% of the first phase's total projects have been implemented in 1477 villages and more than 10 thousand Followers in 52 Centres across 20 Governorates, where out of 22021 planned projects, 6819 projects have been fully implemented (31%), 9057 projects are in-process (41%), while 6145 (28%) have not been yet executed of which the starting date of 66% (4095 projects) has not been due yet for while the rest are in the planning and preparation phase. As for the total number of beneficiaries, they have reached 18 million. Total expenditure has hit almost LE 100 billion out of a budget of LE 200 billion, distributed as illustrated in Figure one.

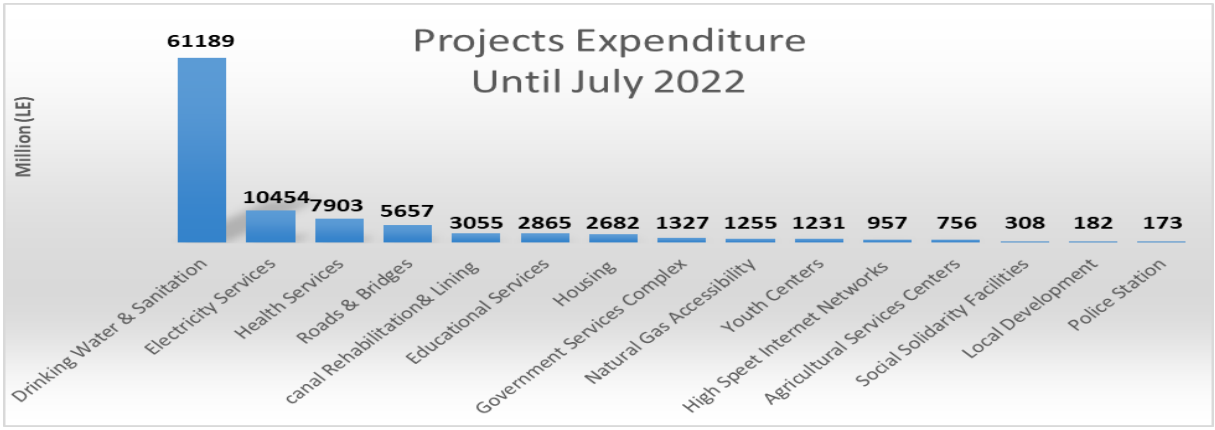

Figure 1: DL Projects Expenditure until July 2022

Source: conducted by authors from Official Decent Life Documents: "The National Project to Develop Egyptian Countryside - Implementation Profile until July 2022"

12.2 Social Investment on a Sectoral Level

The average percentage of implemented projects in the first phase is illustrated in Figure 2. The highest implementation of projects was conducted in the services sector, with water distribution networks being the highest with 88%, post offices accounting for 82%, and aggregation networks accounting for 74% implemented projects. Halfway sector project implementations include purification stations 58%, railways 47%, water lifting stations and treatment stations 44% and 37% implemented projects respectively. The least implemented sectors consist of optical fibre networks accounting for 8% and internal roads accounting for 1%.

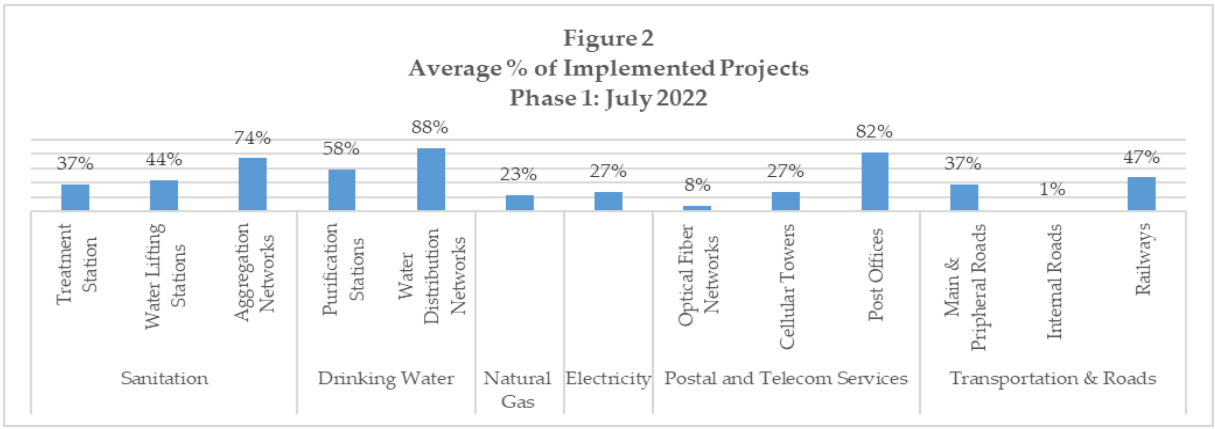

Figure 2: Average Percentage of Implemented Projects; Phase 1: July 2022

Source: conducted by authors from Official Decent Life Documents: "The National Project to Develop Egyptian Countryside - Implementation Profile until July 2022"

Figure 3 displays that the most successful implemented projects focused on community transformation through the construction of educational projects 93%, improved well-being through the construction of hospitals 43%, healthcare units 66% and ambulance units 78%. Projects that focused on the construction of government buildings were also successful with 92% implementation. This is followed by agricultural services centres with 89% implemented projects with construction in canals lining, irrigation bridges. Community capacity building was successful in its implementation with the construction of youth and sports facilities and clubs 77%, social solidarity 52%, security services 69%, housing 34% and local village development 8% implementation.

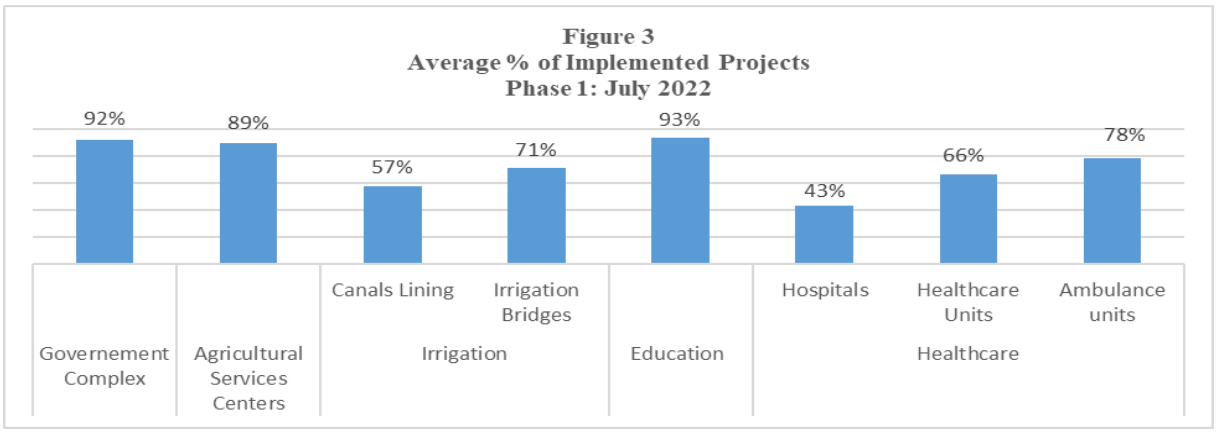

Figure 3: Average Percentage of Construction Implemented Projects

Source: conducted by authors from Official Decent Life Documents: "The National Project to Develop Egyptian Countryside - Implementation Profile until July 2022"

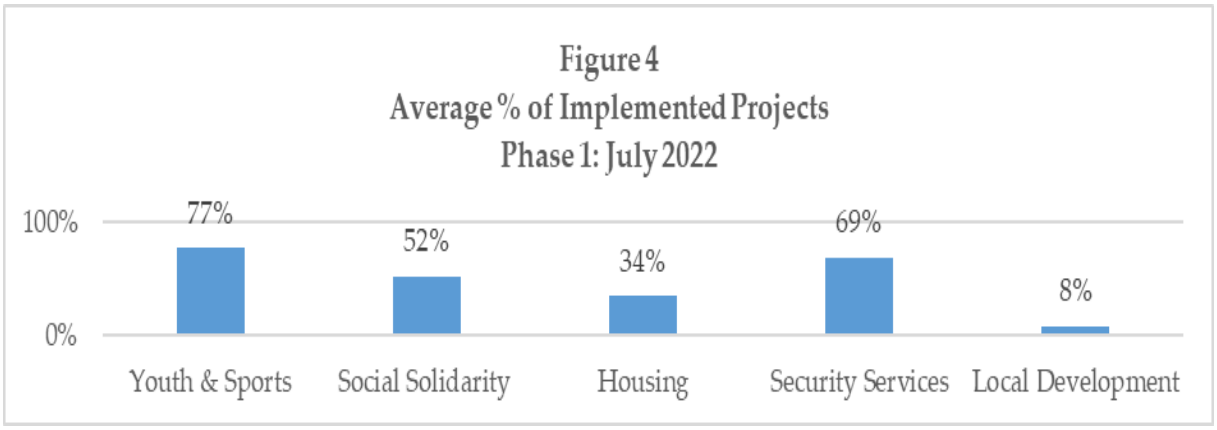

Figure 4:Average Percentage of Welfare Implemented Projects: Phase 1 July 2022

Source: conducted by authors from Official Decent Life Documents: "The National Project to Develop Egyptian Countryside - Implementation Profile until July 2022"

12.3 Challenges, Integrated Project Delivery Action Plans & Lessons Learned

DL has faced several international and national challenges during the planning and implementation of the first phase which called for actions in decisions, procedures, countermeasures, and mechanisms to confront obstacles, resolve problems and meet the initiative's strategic objectives. Table five summarizes information concerning key challenges and corresponding action. A key lesson learned is in the mechanism used as a core principle in the enacted actions placing collaboration and multilateralism at the heart of all operations starting in the early stages of the process until delivery. It has integrated all functions for optimising project delivery and meeting project's objectives. All operations have been streamlined by coordinating all teams/groups throughout the whole process to improve efficiency and maximise expertise of the team members in both planning and management, which is effective application of the **Integrated Project Delivery (IPD**) approach which has been proved very successfully used in developing sustainable mega infrastructure projects worldwide (Jones, 2014).

Table 5: Challenges and Actions in Phase 1 (until July 2022)

Challenges	Action
Ukrainian crisis' impact on raising raw materials and inputs costs. Reduce implementation costs.	Extend the deadline until December 2022 & prioritising projects on basic social provision.
	Maintain efficiency of pricing revision committees at the Ministry of Housing.
	Activate value engineering a cost-cutting strategy to promote utilisation of domestically produced inputs.
	Limit the use of foreign currency (US dollar) to importing equipment with no locally produced substitutes (e.g., submersible pumps, telecom equipment and cabins, gas reduction station equipment…) as to facilitate coordination with the central bank.
	Limit installation of surveillance cameras in facilities to entrances, treasury, and ATMs.
	Develop digital communication networks in all facilities.
	Limit installation of air conditions to servers' rooms and public services halls.
Provision of raw materials and specialised labour commensurate with the unprecedented volume of workflow.	Increase production lines to meet the initiative's requirements in coordination with plastic pipe factories.
	Import polymers to domestically produce pipes, while import part of the required number of pipes to speed up implementation pace.
	Use substitutes (pottery) in developing sanitation networks.
	Study utilisation of substitutes (modified cement) in canals lining.
	Offer regular labour force training during projects' implementation to increase the number of qualified human capital and appoint engineers and specialised experts as part of the project costs.
Allocation of land to implement the initiative's projects.	Allocate all required lands (5321 piece), except for 19 pieces that are still in process.
	Form a committee headed by the Minister of Local Development with all concerned authorities represented as members to finalise all land allotment procedures.
	Instruct the Ministry of Housing, Utilities & Urban Development to compensate the Ministry of Endowments against their land pieces allotted to the projects.
	Coordinate with security authorities to complete approval procedures for 712 pieces of land voluntarily donated by citizens with a total size that exceeds one million square metres.
	Dispossess 43 pieces of land.
Delay in implementing an action plan.	Display governor's instruction for land delivery once the technical approval is issued.
	Conduct technical studies by implementing agencies in parallel with land allocation procedures.
Presence of large population blocks outside the urban spaces of the villages	Update of targeted village status by the General Authority for Urban Planning.
	Execute infrastructure works in accordance with population irrespective of urban spaces.
	Implement standardised reconciliation values for building violations in villages by the Ministry of Local Development.
Organisation workflow among different infrastructure implementing agencies	Allocate LE 2 billion to the Holding Company for Water & Sanitation to handle connecting households to networks.
	Implement households' connections as soon as 50% of the networks are established, natural gas networks as soon as 50% of sewerage system is established, internal natural gas networks unconditioned to the finalising implementation of main supply lines or reduction stations.
	Establish optical networks behind natural gas networks in every street.
Implementation of some projects conflicted with season of supplying some strategic commodities	Wheat supply season: delay delivery of any land used temporarily to store wheat crops until the season is off.

	Sugarcane supply season: delay delivery of any land used temporarily to store sugarcane crops until the season is off.
Requirements of the comprehensive health insurance system for health facilities	Health facilities were exceptionally excluded from the decree issued for abolishing specialty healthcare systems to meet comprehensive healthcare system requirements.
	The Ministry of Health undertakes designs' approval by the General Authority of Health.
	Ensure conformance of newly established facilities (in the last ten years) with comprehensive health insurance requirements.
	Adaptation of healthcare units' standardised models to available spaces and dimensions.
	Unify accreditation and handover procedures.
Followers services (more than 10 thousand followers)	Place implementation of drinking water and sanitation projects on the agenda as a second priority following serving villages.
	Integrate implementation of natural gas, electricity, and telecommunication projects within the future of investments of each concerned Ministry.
	Accessibility to services offered by facilities that are currently underway in villages that is further supported by developing roads connecting villages to followers.
Furniture and equipment	Take account of the number of computers and printers available at those Ministries underway reallocation to New Administrative Capital City to be procured by the initiative.
	The Ministry of Communication and Information Technology, in coordination with both the Ministry of Interior and Ministry of Justice, handles the responsibility of providing specialised equipment for the Commercial Registry Office and Real Estate Registration Office.
	The Egyptian Post Office has assigned the responsibility to supply ATMs in every government complex.
	Furnish and equip government complexes are underway in coordination with the Arab Organization for Industrialization.
	An MOU has been signed between the Ministry of Agriculture and the Ministry of Military Production to supply Agriculture complexes with milk assembly centres.
	Furnishing healthcare facilities is in process in accordance with an MOU signed between the Ministry of Health and the Centralised Purchasing Authority.
	Approval of the budget for the Ministry of Youth and Sports concerning furnishing and equipping youth centres.
	Approval of the required budget for the Ministry of Solidarity concerning furnishing and equipping its facilities.
Operation and Maintenance	The Ministry of Local Development is responsible for preparing the operational action plan for government complexes.
	Coordination for installation of cellular towers on agriculture complexes.
	Preparing organisational structure for local units in conformance with the nature of services offered. The Ministry of Local Development has assessed all local administrators and set a training plan in collaboration with the Ministry of Communication and world food Program as well as Association of Netherlands Municipalities (VNG). 1440 cadres have been trained until July 2022.
	The Central Agency for Organization and Administration in coordination with the Ministry of Justice has provided all human capital to operate Real estate Registration units at government complexes.
Delivery of implemented projects	Paying 80% of the contract's value prior to review by security and oversight authorities.
	Establishing a committee (project general consultant, Jurisdiction Authority, implementing agency) to be responsible for preliminary handover of the project ensuring conformance to specs and preparing full documents.
	Establishing a committee headed by Governor and membership of: Administrative Control Authority, Military Technical College, project's consultant "Dar Al-Handasah", project's jurisdiction authority, and implementing agency is responsible for technical and financial review for the handover sign-off, as well as paying the remaining financial appropriation dues of the contract.

Multilateralism of implementing agencies and mechanism for monitoring and calculating execution ratio	Unifying the project's concept, definition, and targeted scope of work among all implementing parties.
	Digitalization: Coding all projects and preparing a unified database.
	Dar El-Handasah, in coordination with all parties, has established unified relative weights for the evaluation criteria to calculate implementation rates.
Conflict between action plans funded by foreign donors with that of DL	Projects that are currently funded by international donors have been alleviated from the DL action plan to avoid duplication.

Source: conducted by authors from Official Decent Life Documents: "The National Project to Develop Egyptian Countryside - Implementation Profile until July 2022"

13. Conclusion

The article concludes that social protection mega projects performance is dependent upon PI, collective affective conditions, sustainability of programs through operational resilience, and sustainable development via community transformation. Findings propose a set of indicators, assessment tools, and a strategic management criterion, to evaluate how effective the Decent Life initiative is and to consider it a reflection of Egyptian public policy on sustainable development.

Policy Recommendations

- Social protection projects require continuous assessment confirming resiliency of policies, programs, a step towards scaling up protection to newly vulnerable households.
- Local PI and multilateralism are the mechanisms for operational resilience and thus sustainability.
- Mega project efficiency and effectiveness require integrated project delivery IPD.
- Collaborative research is needed among international and domestic ministries, governments, scientists, economists, policymakers, and experts to propose practical solutions to challenges faced.
- Global sharing of knowledge should be practiced by policymakers to redesign integrative policies of megaprojects and build policy resilience associated with bottle neck identifications and classifications.

Potential future trajectories and research agendas

- Measuring inclusive growth, its indicators, and measures of success, when applied and embedded into social protection programs and mega projects.
- Expanding country project experiences on integrated project delivery approaches.
- Expanding institutional capacity on various levels to ensure the robustness of integrative public policy, the expansion in the size of a party.
- Analysing transformative adaptive capacity and community behavioural changes to understand how individuals react to policy changes.
- Recognizing the effect of initiatives on the local and global level in the preparatory planning stage with feedback from interdisciplinary background expertise such as academics, researchers, scientists, policymakers, and experts.

References

Ansell, C., & Gash, A. J. J. (2008). *Collaborative governance in theory and practice*, *18*(4), 543-571. https://doi.org/10.1093/jopart/mum032

Alatas, V., Banerjee, A., Hanna, R., Olken, B. A., & Tobias, J. (2012). Targeting the poor: evidence from a field experiment in Indonesia. *American Economic Review*, *102*(4), 1206-40.

Banerjee, A., & Duflo, E. (2011). *Poor Economics-A Radical Rethinking of the Way to Fight*. New York: Public Affairs.

Beath, A., Christia, F., & Enikolopov, R. (2013). Empowering Women through Development Aid: Evidence from a Field Experiment 422 in Afghanistan. *The American Political Science Review, 107*(3), 540-557.

Berg, J., Hilal, A., El, S., & Horne, R. (2021). *World employment and social outlook: Trends 2021*. International Labour Organization.

Bogdanor, V. (Ed.). (2005). *Joined-up government* (Vol. 5). Oxford University Press. https://academic.oup.com/british-academy-scholarship-online/book/28493/chapter-abstract/229902136?redirectedFrom=fulltext

Breisinger, C., ElDidi, H., El-Enbaby, H., Gilligan, D., Karachiwalla, N., Kassim, Y., Kurdi, S., Jilani, A.H., & Thai, G. (2018). *Egypt's* 425 *Takaful and Karama cash transfer program: Evaluation of program impacts and recommendations*. Intl Food Policy Res Inst.

Christensen, T., & Lægreid, P. (2007). The whole-of-government approach to public sector reform. *Public administration review*, *67*(6), 1059-1066. https://www.jstor.org/stable/pdf/4624667.pdf?refreqid=excelsior%3Af2f4dd7401d8d3698e2e5575d241ea5f&ab_segments=&origin=&acceptTC=1

Dirkx, E. (2019). *BRACED–Building Resilience and Adaptation to Climate Extremes and Disasters (January 2015–June 2019–Grant: 7.2 million GBP) What did Welthungerhilfe's BRACED project do?* Welthungerhilfe.

Duflo, E. (2021) 17th edition of UNCTAD's prestigious Raúl Prebisch Lecture . UNCTAD. Retrieved from: https://unctad.org/news/duflo-offers-pathways-better-future-lessons-covid-19- crisis.

Eissa, N. (2020). Egypt Within the Sustainable Development Goals One and Two of the United Nations: Overview and Recommendations Thereof. *Research in World Economy*, *11*(5).

Eissa, N. (2022). Transformative Adaptation Approaches and Climate Change Resilience, Preparedness and Sustainability. *Journal of Management Research*, *40*(4).

Fiszbein, A., Kanbur, R., & Yemtsov, R. (2014). Social protection and poverty reduction: Global patterns and some targets. *World Development*, *61*, 167-177.

Hudner, D. and Kurtz, J. (2002). Health disaster management: Guidelines for evaluation and research in the Utstein style. *Prehospital and Disaster Medicine, 17*(3), 31–55.

International Labour Organization (ILO) (2019). *ILO Centenary Declaration for the Future of Work – Adopted by 108th session of the International Labour Conference*. Geneva: ILO.

International Monetary Fund (IMF) (2019). *"A Strategy for IMF Engagement on Social Spending." IMF Policy Paper*, Washington, DC: 451 IMF.

Jones, B. (2014). Integrated project delivery (IPD) for maximising design and construction considerations regarding sustainability. *Procedia Engineering*, *95*, 528-538. https://www.researchgate.net/publication/275540863_Integrated_Project_Delivery_IPD_for_Maximizing_Design_and_Construction_Considerations_Regarding_Sustainability

Lakner, C., Yonzan, N., Gerszon Mahlerr, D., Castaneda Aguilar, A., & Wu, H. (2021). *Updated estimates of the impact of COVID-19 on* 456 *global poverty: Looking back at 2020 and the outlook for 2021*. Washington DC: World Bank.

Malone, E. (2009). *Vulnerability and Resilience in the Face of Climate Change: Current Research and Needs for Population Information*. Washington, DC: Population Action International.

Mekky, S. T. (2021a). On-line learning assessment: Egyptian universities as a case study. *International Journal of Information and Education Technology*, *11*(10), 471-478.

Mekky, S.T. (2021b). Institutional Structural Reform and Digital Governance. Journal of Political Science and Economics, 12 (11), 1-7.

Ministry of International Cooperation Egypt (2022). Sectors & Sustainable Development Goals & Projects. https://moic.gov.eg/

Ministry of Planning and Economic Development Egypt (2022). https://mped.gov.eg/home?lang=en

Meijers, E., & Stead, D. (2004, December). Policy integration: what does it mean and how can it be achieved? A multi-disciplinary review. In *Berlin Conference on the Human Dimensions of Global Environmental Change: Greening of Policies-Interlinkages and Policy Integration. Berlin*.

Nixon, S. A. (2019). The coin model of privilege and critical allyship: implications for health. *BMC Public Health*, *19*(1), 1-13.

O'Brien, C., Holmes, R., Scott, Z., & Barca, V. (2018). *Shock-Responsive Social Protection Systems Toolkit*. Oxford, UK: Oxford Policy Management

Official Decent Life Documents: "The National Project to Develop Egyptian Countryside – Implementation Profile until July 2022"

Organisation for Economic Co-operation and Development OECD, Knowledge Platform on Policy Coherence for Sustainable Development. https://www.oecd.org/governance/pcsd/toolkit/guidance/policycoordination/#:~:text=Policy%20Coordination-,GUIDANCE,actions%20across%20sectors%20and%20institutions.

Philipp, T. and Maggetti, M. (2020), Patterns of Policy Integration and Administrative Coordination Reforms: A Comparative Empirical Analysis, Public Administration Review, Vol. 80, Iss. 2, pp. 198–208. DOI: 10.1111/puar.13117. https://serval.unil.ch/resource/serval:BIB_B322ACDD6AF6.P002/REF

Saab, N., & Sadik, A. (2016). *Sustainable Development in a Changing Arab Climate. How Can Arab Countries Achieve Sustainable Development Goals by 2030*. Beirut, Arab Forum for Environment and Development (AFED). Retrieved from: http://www.afedonline.org/webreport/ENG/afedreport2016-eng.htm

Schady, B.N., & Mariano, M.C.A. (2017). *Can Cash Transfers Help Households Escape an Inter-Generational Poverty Trap IDB Working Paper Series Nº 767*. Inter-American Development Bank.

Schipper, E. L. F., & Langston, L. (2015). A comparative overview of resilience measurement frameworks. *Analysing Indicators and Approaches; Overseas Development Institute: London, UK*, *422*.

Schultz, T. (2004). School Subsidies for the Poor: Evaluating the Mexican Progresa poverty program. *Journal of Development Economics*, 74 (1), 199-250.

Slater, R. (2022). *Sustaining existing social protection programmes during crises: What do we know? How can we know more?* Institute of Development Studies.

Trein, P., Biesbroek, R., Bolognesi, T., Cejudo, G. M., Duffy, R., Hustedt, T., & Meyer, I. (2021). Policy coordination and integration: A research agenda. *Public Administration Review*, *81*(5), 973-977. https://onlinelibrary.wiley.com/doi/epdf/10.1111/puar.13180

Ulrichs, M., Slater, R., & Costella, C. (2019). Building resilience to climate risks through social protection: from individualised models to systemic transformation. *Disasters*, *43*, S368-S387.

United Nations (2015). *World economic situation and prospects 2015*. UN. Varone, F., Nahrath, S., Aubin, D., & Gerber, J. D. (2013). Functional regulatory spaces. *Policy sciences*, *46*(4), 311-333. https://www.jstor.org/stable/42637286#metadata_info_tab_contents

World Bank (2015). *Global monitoring report 2015/2016: Development goals in an era of demographic change*. Washington DC: World Bank.World Bank Source Book. Protecting All: Risk-Sharing for a Diverse and Diversifying World of Work (2021). World Bank.

Yemtsov, R., Honorati, M., Evans, B., Sajaia, Z. and Lokshin, M., (2018). Concepts, Definitions, and Indicators for Social Protection Analysis. https://openknowledge.worldbank.org/handle/10986/29802

Contact emails: sthabet@fue.edu.eg
noura.eissa@fue.edu.eg