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**Economic and Social Commission for Western Asia (ESCWA)**

## **Intergenerational Justice: Meeting the Needs of the Future Arab Generations**



**United Nations  
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## **Preface and Acknowledgements**

This publication constitutes part of the research papers conducted by the Social Justice Section within the Social Development Division in ESCWA to study the situation and trends of selected aspects of social justice. These papers aim to enhance member countries capacities to integrate the four pillars of social justice, namely rights, equity, equality and participation in their development planning processes. In addition, they inform regional and global processes on the progress made by member countries in implementing equitable, inclusive and participatory policies that respond to the global mandates including the Agenda 2030.

The theme of this paper, intergenerational justice, or how to balance the needs of current and future generations, has been selected on the basis of the social justice priorities identified by ESCWA member countries during the 28<sup>th</sup> Session of the Commission which was held in Tunisia from 15-18 September 2014. Addressing this issue was deemed important in view of the insufficient understanding of the concept of intergenerational justice and its critical role in achieving sustainable development in the Arab region.

In light of the above, this publication focuses on the concept and meaning of intergenerational justice and discusses its relationship with social justice and sustainable development while emphasizing the questions of rights, equity, equality and participation. Given the interdisciplinary nature of intergenerational justice, the paper examines select dimensions of the concept that are of particular relevance to the Arab countries and for which data is available, and explores a set of measures to track the situation of intergenerational justice in the region. Using examples from the region and beyond, the paper then proposes various mechanisms and policy options that that can be adopted by Arab countries to ensure that the rights of the future generations are protected.

The paper was primarily authored by Ms. Susan Razzaz, former Senior Country Economist for the World Bank and a lead consultant for ESCWA. Ms. Dina Tannir from the Social Justice Section revised the draft and authored additional chapters. Special thanks go to Mr. Chadi Al-Halabi for assisting in the data collection and to the colleagues in the Sustainable Development and Policies Division in ESCWA for their overall support. The authors would also like to thank Ms. Rania Al-Jazairi (First Social Affairs Officer) and Ms. Naeem Almutawakel (Social Affairs Officer) for their helpful comments on the gender and human rights dimensions. The finalization of the paper also benefited from the feedback of Mr. Oussama Safa, Chief of the Social Justice Section and Mr. Frederico Neto, Director of the Social Development Division.

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## I. Introduction

The question of intergenerational justice, or broadly speaking the rights and interests of future generations, has been the subject of heated debate since the advent of environmental awareness. Most discussions and literature focus on the following fundamental questions: if present unjust trends and practices continue, what will become of humankind and the planet? What kind of legacy are we passing to young men and women and their children? More importantly, do we have any obligation towards far-distant, unborn people? Can future generations claim any right from us as the custodians of Earth, including those enshrined in the International Covenant on Economic, Social and Cultural Rights? Moreover, what legal forms or mechanisms are required to protect those rights?

While the discourse continues as to whether the needs of future generations constitute as rights, there is no doubt that intergenerational justice issues have found agency. Individuals and communities have come to acknowledge that while modern technology and rapid growth in the last decades have bettered the quality of life on multiple fronts, **the crises of the present such as poverty, inequality, wars and climate change are no longer a threat to the current generations. They also transcend through time and space creating serious risks to future generations and to the relationship between humankind and our planet.** Too often, these risks are the result of unrestrained, business-as-usual economic and technological practices that ignore the interdependence between the people, prosperity and the planet. At the same time, despite positive strides on multiple fronts, most political institutions and decision makers remain unable to integrate the interests of future generations into policymaking. In other words, the pathways to ensure that succeeding generations will have the same rights and options as their predecessors remain unclear.

In recent decades, reference to intergenerational justice increased dramatically and found its way into various international legal instruments and development frameworks. In this context, the implementation of Agenda 2030 for Sustainable Development and other historic pacts, such as the Paris Agreement, if fully implemented, promise to set the world on a new path to equitable, sustainable and climate-resilient future while reinforcing the centrality of the people and their rights, the planet and its resources, peace, and justice to sustainable development. These agreements seek to ensure a healthy planet and support the well-being of the present and future generations. Policy coherence, partnerships and the role of civil society in implementing these agreements and safeguarding the rights of the next generations, are central elements in this process.

On the domestic front, intergenerational justice is also finding voice. Today, barely a budget debate passes in a parliament without a reference to generational justice or ‘financial sustainability’. Moreover, as this paper will show, several countries have enshrined the rights of future generations in their constitutions while others have established a body or legal framework that serves to protect the needs of future generations.

In the Arab region, the concept of intergenerational justice is deep-rooted in cultural and religious beliefs. However, intergenerational issues are not as salient on national development plans as other economic and social realities. In part, this is the result of a development model that focused primarily on economic growth whilst overlooking population concerns, gender equality and human rights and their long-term impact on future generations. Despite the relative high growth enjoyed by some Arab countries from the extraction industries, the long-term implications of the current production and consumption patterns and energy use on the environment are seldom taken into account in the design and implementation of development policies and programmes. Such an approach is obviously unsustainable, particularly in the context of political

instability, resurgent fiscal constraints, high population growth, little economic diversification and poor environmental management. More importantly, the well-being of both current and future citizens will remain uncertain in the absence of necessary changes in social structures and relations. Addressing these deficits requires a transformation in attitudes and development policy to ensure that Arab generations including future ones can equally benefit from wealth and domestic resources. This transformation needs to be accompanied by political reforms that curb the economic power of elites, activate responsible citizenship and encourage a greater engagement of civil society institutions and social movements in public affairs. An important element in this process is the empowerment of women and youth and enabling them to become true agents of social transformation by contributing to how our world will adapt to multiple challenges.

For the past three years, ESCWA carried out research on social justice issues and provided practical tools to ensure that *rights, equity, equality and participation*, the four pillars of social justice, are central to social policy thinking and practice. To this end, ESCWA produced a seminal paper to engage policy makers and other stakeholders in the Arab region in a dialogue on the concept of social justice while also building consensus on the pathways that can lead towards more fair and just societies. One of the noticeable outcomes of this dialogue is the identification of intergenerational justice in all its aspects –social, economic, cultural and environmental- as a key element for achieving social justice and sustainable development<sup>1</sup>.

In this publication, ESCWA takes a closer look at intergenerational justice from a conceptual and pragmatic perspective while linking the discussion to the social justice framework adopted by ESCWA. The objective is to explain the concept of intergenerational justice and examine its implications for sustainable development and social justice in the Arab region. To do so, the paper presents a brief review of the evolution of the concept, describes the main theories and approaches that were developed to define it and explores selected dimensions of intergenerational justice that are relevant to the Arab region. Finally, the paper proposes a set of options and key actions to promote intergenerational issues and protect the rights of the future generations in the Arab region.

Against this backdrop, it is important to highlight a number of factors that have shaped the scope of the paper: First, studying intergenerational justice occurs ideally across several fields including the environment, economics, social policy, culture, public budgeting and law, posing a challenge to address it in one single publication. Second, measuring intergenerational justice is complicated and requires the availability of intergenerational data, such as long panel data, to measure the intergenerational interactions and tradeoffs in a particular field, most of which are scarce in the Arab region<sup>2</sup>. Third, as the next Section will show, multiple myths and realities have surrounded the concept of intergenerational justice and led to considerable approaches to demystify it. As a result, this paper does not intend to provide an exhaustive review of all the questions, dimensions and measurements of intergenerational justice. Instead, it highlights the leading theories on the concept and discusses the principal related issues from a social justice perspective and for which data is available.

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<sup>1</sup> For more information see: ESCWA (2014). Social Justice in the Policies of Arab States (E/ESCWA/28/8).

<sup>2</sup> Panel data (or longitudinal data) refers to repeated multi-dimensional measures on individuals over time. In other words, panel data include observations of multiple phenomena such as age, income and sex, obtained over different periods for the same individuals.

## II. The Question of Intergenerational Justice: navigating between the realities and myths

Much has been written on whether justice principles –in its broader meaning – can have a temporal dimension and apply to relations between different generations. For many researchers in this field, the main question appear to be a claim of distributive justice: whether future generations can be considered as rights holders against present generations and whether present generations have an obligation by virtue of fairness not to enact decisions or execute actions that could harm future generations, including among others economic and environmental policies.<sup>3</sup> The issue of intergenerational justice – or intergenerational equity- is rooted in this thinking. **In other words, achieving justice between generations requires that youth and future generations have equitable access to certain resources and opportunities including social and environmental goods to meet their own needs as older generations. In turn, this requires a transformation in the current attitudes and practices that shape equality outcomes to prevent the perpetuation of inequality in the next generations.**

As vague as it may sound, this argument becomes more pressing and real when examined from a children and youth lens. Individuals who are not yet born are disadvantaged because they have no political voice and hence cannot challenge today’s decisions that may affect them. Around the world, young people complain about actions and policies that are rigged against their wellbeing. For example, is it ethical for youth and unborn individuals to inherit the greenhouse effect or the ozone hole or a heavy government debt from previous generations? Is it fair that the younger generation is more likely to receive a lower yield on their contributions to the pension system than the previous generation? Is it just that more and more youth in the world are unable to find jobs? For women, the situation is more challenging because of higher female unemployment and their concentration in informal or unpaid family work.

We borrow environmental capital from future generations with no intention or prospect of repaying. They may damn us for our spendthrift ways, but they can never collect on our debt to them - *The Brundtland Report, 1987, p.16*. Available from: <http://www.un-documents.net/our-common-future.pdf>

In the Arab region, these questions take a critical twist. The cumulative effects of political changes and conflict that continue to ravage some countries are likely to create a “lost generation” of Arab youth. The toll it has taken on women and young girls has been particularly vicious, resulting in lower educational outcomes, forced early marriage, gender-based violence and restricted access to reproductive health care. According to the most recent Survey of Economic and Social Developments in the Arab region, conflict has aggravated other economic and social indicators including debt, poverty, disenfranchisement, unemployment and corruption<sup>4</sup>. Combined, these are the same pathologies have helped trigger the sociopolitical upheavals known as the “Arab Spring” and they have a potential for inter-temporal transmission.

The irreversible impacts of global warming on water resources, food production, health and the environment has drew also considerable attention to long-term prosperity and justice. The Stern Review (2006) which is probably one of the most notorious and contested economic reports on climate change points to the ethics of the responsibilities of existing generations vis-à-vis succeeding ones. Broadly speaking, it claims that the cost of “doing-nothing” on climate change would far outweigh the costs of mitigation and that without strong and early action the overall costs of climate change will be equivalent to

<sup>3</sup> Meyer, Lukas, "Intergenerational Justice", The Stanford Encyclopedia of Philosophy (Summer 2016 Edition), Edward N. Zalta (ed.), available from <http://plato.stanford.edu/archives/sum2016/entries/justice-intergenerational>.

<sup>4</sup> ESCWA (2016). Survey of Economic and Social Developments in the Arab Region 2015-2016. United Nations. Beirut (E/ESCWA/EDID/2016/1).

*Box 1. The Relationship between Intergenerational and Intragenerational justice*

- Intergenerational justice compares equity outcomes between present and future average individuals, whereas intragenerational justice is concerned with the various circumstances and living conditions of individuals of the same generation, at a given point in time.
- Intergenerational justice is broadly associated with the preservation of the natural ecosystem while intragenerational justice is more concerned with social and economic development.
- While intergenerational justice goals are supposed to be achieved in a hundred years, intragenerational justice goals are expected to be met within the next legislative period.
- The study of intragenerational justice focuses on analyzing issues related to distribution of resources for example between the rich and poor, North and South, men and women, persons with and without disability, the jobless and the workers, or between people living in different geographic locations or persons with different ethnic or religious backgrounds.
- Poverty and inequality, notwithstanding their centrality to achieving international and social justice, have also a temporal dimension given the tendency of poverty to be transmitted from parent to child. Therefore, addressing the needs of future generations is not logical if delinked from the needs of those currently living.
- Sustainable development attaches equal normative importance to the two concepts. It provides a framework for integrating the intergenerational and intragenerational dimensions of justice.

losing at least 5 per cent of the global gross domestic product (GDP) each year. The Review also argues that including a wider range of risks and impacts from climate change associated with business-as-usual emissions, could increase this loss to 20 per cent of GDP or more indefinitely<sup>5</sup>. Most likely, these effects will disproportionately affect the livelihoods of the poor in the generations to come.

Despite these alarming figures, particular doubts or myths about intergenerational justice remain. For some intellectuals and politicians, this concept is a luxury we can ill afford given the more pressing political, social and economic concerns of the present. Within this context, they argue that intergenerational justice policies have no priority to intragenerational policies (Box 1). For example, there may be times where the actions needed to protect the environment for future generations may conflict with the need to combat hunger or fight an epidemic as quickly as possible.

Furthermore, while the rights of future “non-existent” generations has been regarded as a myth, few would disagree that our planet and its resources is in the custody of humankind as it passes from one generation to another and that we, who inherited this earth, have *the right* to enjoy and benefit from it. In effect, this implies that current generations have certain *responsibilities* to invest in and preserve natural resources and wealth as guardians for the wellbeing of the future generations. This is a natural extension of the concept of human rights. Promoting such a universal value is critical because it shapes not only the relationship of human beings with the

environment but also the relationship among different generations.

As the next section will show, a variety of theories and approaches were developed to explain the notion of intergenerational justice. Yet most scholars agree that it is unrealistic to prioritize growth without taking into account the fragility of our ecosystems, the negative impacts of modern technology and energy use and the growing gaps between different parts of the world on one hand, and between the present and future generations on the other. In the light of the above, current generations have a growing responsibility to

<sup>5</sup> Stern, N. (2006). Stern Review Report on the Economics of Climate Change: Summary of Conclusions. HM Treasury archives. Available from: [http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/CLOSED\\_SHORT\\_executive\\_summary.pdf](http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/CLOSED_SHORT_executive_summary.pdf)

detect future risks and should be committed to sustain the environmental conditions necessary for a healthy human living, particularly the use of non-renewable natural resources.

### **III. Intergenerational Justice: from traditions to a new global pact**

Historically speaking, the concept of intergenerational justice manifests itself through traditions, culture and religious beliefs concerned with issues of fairness and the obligations of present generations towards their children and descendants. Attitudes about intergenerational fairness have existed since the first recorded debt issuance in Sumaria in 1796 BC. In that context, debt would be passed from one generation to the next, with the implication that one could be condemned to slavery as a result of one's parents' debt. Later, in the Old Testament and in Greek law, the concept was reversed based on the concept that children should not be punished for their parents' profligacy.

A preservationist attitude is supported by the Judeo-Christian faiths whereby Earth is a gift to the human race so they can benefit from its produce and pass it on to each generation in a good condition. Similarly, the Islamic Sharia regards men as having inherited "all the resources of life and nature" and having certain religious duties in using them. In these traditional contexts, each generation has the right to use the resources as a common good but must care for them and pass them to future generations.<sup>6</sup>

The premises above find sustenance in international law and justice. A number of international legal documents, declarations and resolutions have surfaced since World War II to underscore the welfare of present and future generations. In most early references, the concept appeared as broad intentions, most often in preambles and without detailed consideration to concrete choices and implications in the body of the texts.<sup>7</sup> For example, the United Nations Charter places specific emphasis on "saving succeeding generations from the scourge of war"<sup>8</sup>. Moreover, the Preamble to the Universal Declaration of Human Rights states that "whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world". In this case, the allusion to all members of the human family has a temporal dimension and affirms that different generations are linked to each other and have an inherent and equal right in enjoying the planet. The Declaration on the Rights of the Child (1959), the International Covenant on Civil and Political Rights (1966) and the Declaration on the Elimination of Discrimination against Women (1967) and many other human rights instruments entertain the same values of equality of rights that extend in time as well as space.

However, during the 1970s, the world witnessed a boom in international negotiations reflecting concern for the impact of human action on posterity and its relationship with the natural environment. The Declaration of the United Nations Stockholm Conference on the Human Environment in 1972 calls governments, individuals, communities and businesses to safeguard and improve the human environment for the benefit of present and future generations and expressively refers it as a looming priority along other goals of peace and socio-economic development<sup>9</sup>. In the period that followed, other international treaties started incorporating into their language either the concept of protecting the natural environment or the concern

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<sup>6</sup> See for example, Edith Brown Weiss (1992), *Intergenerational equity: a legal framework for global environmental change in Environmental change and international law: New challenges and dimensions*. Ed. by Edith Brown Weiss. United Nations University Press, Tokyo. Available from: <http://archive.unu.edu/unupress/unupbooks/uu25ee/uu25ee0z.htm>

<sup>7</sup> See Report of the Secretary-General, 2013. *Intergenerational solidarity and the needs of future generations (A/68/322)* and *How to Protect Future Generations' Rights in European Governance*, by M Gopel and M Arlhelger in *IJR* Volume 10, Issue 1/2010.

<sup>8</sup> Charter of the United Nations, San Francisco [on 26 June 1945](http://www.un.org/en/sections/un-charter/preamble/). Available from [http://www.un.org/en/sections/un-](http://www.un.org/en/sections/un-charter/preamble/)

<sup>9</sup> <http://www.unep.org/documents.multilingual/default.asp?documentid=97&articleid=1503>

for future generations. Examples include the 1973 Convention on International Trade in Endangered Species, the Regional Seas Conventions negotiated under the UNEP and the 1982 World Charter for Nature.

In this atmosphere of increased sensibility to the link between the environment, development and future generations, the United Nations World Commission on Environment and Development issued in 1987 a report entitled “Our Common Future”. The document -also known as the Brundtland Report- explicitly identified the challenge of intergenerational justice in environmental terms, stating the goal as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>10</sup> At the same time, the concept emerged in the politics of the countries of the Organization for Economic Co-operation and Development (OECD), albeit in the context of an **aging population**. The concern for of intergenerational justice has meant that government policies may be pandering to the politically powerful older generation at the expense of the less vocal younger generation, for example by prioritizing spending on consumption of the elderly over investment in education.<sup>11</sup>

Consequently, these events led to the first attempt to define and implement an international precautionary principle to safeguard the environment and promote intergenerational justice<sup>12</sup>. In 1992, the United Nations Conference on Environment and Development or the Rio Earth Summit declared that while States have the right to exploit their own resources, they also bear the sole responsibility to ensure that these activities do not harm the environment. Principle 3 of the Rio Declaration states “the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.”<sup>13</sup> It further asserted “in order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. The Declaration also includes the formulation of the Polluter Pays Principle (Principle 16) to make the party responsible for producing the pollution accountable. What characterized this Conference is the manifestation of the new sense of solidarity among generations and a clear sign of the willingness to work towards global sustainable development.

At the World Social Summit in 1995, countries committed themselves to create a framework of action to among other goals, “fulfil our responsibility for present and future generations by ensuring equity among generations and protecting the integrity and sustainable use of our environment”.

*\*Report of the World Summit for Social Development, A/CONF.166/9, para.26(b)*

On the social front, numerous development frameworks were also marked by an ethical awareness towards future generations. They include among others the 1993 Vienna Declaration and Program of Action by the World Conference on Human Rights; the 1994 International Conference on Population and Development; the 1995 World Social Summit; the 1995 Beijing Declaration; the European Convention on Human Rights and Biomedicine in 1996; in addition to the

<sup>10</sup> Report of the World Commission on Environment and Development, 1987 (A/42/427).

<sup>11</sup> See, for example, *The Rise of Gerontology?* (Berry 2012), *Jilted Generation: How Britain Has Bankrupted its Youth* (Hawker and Malik 2010), *What Did Babyboomers Ever Do For Us?* (Beckett 2010), *The Coming Generational Storm* (Kotlikoff and Burns 2004), and *The Clash of generations* (Kotlikoff and Burns 2012).

<sup>12</sup> The precautionary principle (or precautionary approach) to [risk management](#) means that if a public decision or action or policy has a suspected risk of causing harm to the [public](#) or to the [environment](#), the [burden of proof](#) that it is *not* harmful falls on those taking the action. This situation occurs when adequate [scientific consensus](#) or knowledge on a particular action is not available.

<sup>13</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992.

UNESCO's Declaration on the Responsibilities of the Present Generations towards Future Generations in 1997<sup>14</sup> and the 2002 Madrid Plan of Action on Ageing.

While these initiatives took center stage, **there is no single document that has acknowledged the needs of the future generations more fiercely than the Rio+10 Outcome Document: *The Future We Want*** (Box 2). The report identifies the contemporaries as the custodians of the future and mainstreams this concern across the social, economic and environmental dimensions of sustainable development. It recognizes the important contributions of children and youth to achieve sustainable development and explicitly calls to foster intergenerational dialogue and solidarity to preserve the planet and secure the rights of present and future generations on the basis of equity.<sup>15</sup>

*Box 2. Outcome Document of Rio+20: The Future We Want*

*We, the Heads of State and Government and high-level representatives, having met at Rio de Janeiro, Brazil, from 20 to 22 June 2012, with the full participation of civil society, renew our commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations.\**

\*A/RES/66/288

In 2015, the declaration of the 2030 Agenda for Sustainable Development confirmed the responsibilities that today's generations owes to the future ones and, adding for the first time, that the Agenda will be implemented in a manner consistent with international law. Recognizing that the current generation may well be the last to have chance in saving our planet, the World leaders also pledged to "protect the

planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations".<sup>16</sup>

In addition to the focus on the environment, **the Agenda 2030 contains elements of an integrated response that will be crucial to address the generational aspects of social and economic development.** These include eradicating poverty, ensuring decent work for all, promoting access to essential services and reducing inequalities in all dimensions. Leaving no one behind, including future generations is a paramount commitment of the Agenda. The Goals and Targets outlined in the Agenda require a transformative change to shift the world onto a sustainable and resilient path. To do so, means making fundamental changes in the consumption and production patterns and use of natural resources in a way that minimizes environmental degradation while maximizing the wellbeing of contemporary and future generations.

The Paris Agreement, the world's first legally binding global climate compact, is the most recent attempt to bring the issue intergenerational justice into contemporary discussions on how to scale up efforts on climate action and drive sustainable development. Also guided by the principles of equity and common responsibilities, the Agreement emphasizes that climate change is a common concern for all mankind and that Parties should, when taking action to address climate change,

"This is a historic moment, not just for us but for our children, our grandchildren and future generations. The Paris agreement is a turning point in the world's fight against unmanaged climate change which threatens prosperity" – *Climate economist Lord Stern.*

Source:

<https://www.theguardian.com/environment/2015/dec/13/world-leaders-hail-paris-climate-deal>

<sup>14</sup> Emmanuel Agius, 2006. Intergenerational Justice, in *Handbook of intergenerational justice*, ed. by Joerg Chet Tremmel. Edward Elgar Publishing, Massachusetts.

<sup>15</sup> Resolution adopted by the General Assembly on 27 July 2012. 66/288. The future we want (A/RES/66/288).

<sup>16</sup> Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1).

respect, promote and consider their respective obligations on human rights issues including intergenerational equity.<sup>17</sup>

Collectively, the agreements and conventions outlined above led to a greater acknowledgment of the moral responsiveness for future generations. It is now evident that the consequences of present acts and policies are not limited to those who are born but extend to far distant generations. At the same time, by recognizing the complex interdependence of the three dimensions of development, these processes have resulted in a new global pact that promises to set the course on a new path that could guarantee the quality of life for generations to come.

#### IV. Understanding Intergenerational Justice

##### A. Conceptual and Philosophical Overview

The OECD defines intergenerational justice or equity as “the issue of sustainable development referring, in the environmental context, to fairness in the inter-temporal distribution of the endowment with natural assets or of the rights to their exploitation”.<sup>18</sup> However, **intergenerational justice can be understood as a broader concept that involves apart from distributive, also procedural, restorative, retributive and gender dimensions.** Hence, the present paper adopts the definition of intergenerational justice available in the 2013 Report of the UN Secretary-General entitled “Intergenerational solidarity and the needs of future generations”. It defines it as *the fair “allocation of burdens and benefits across generations” where fairness means that “pursuit of welfare by the present generation should not diminish the opportunities of succeeding generations for pursuing a good and decent life”*<sup>19</sup>.

The basic thesis of intergenerational justice argues that we, the human species hold the natural environment of our planet in common with other own species including past, present and future generations and we are the stewards of our planet. Significantly, this thesis has led to the emergence of two fundamental relationships that govern any theory of intergenerational justice in the context of our natural environment: 1) the relationship between the different generations of the human species, and 2) our relationship to the natural system in which we thrive. At the same time, the argument is connected with the principle of equity and implies that all generations have an equal place in relation to the natural environment and have equal rights and responsibilities to care for and benefit from the natural capital.

However, it turns out that there are deep philosophical puzzles that arise in attempting to define the concept intergenerational justice or to spell out duties to future generations. In part, this is a result of the controversial issues invoked when talking about the future and the “moral sensibility” towards future generations. An additional concern in this context is that the long-term costs to the environment and the future generations are hard to quantify. These puzzles also seem to be linked to the idea of sustainability and to whether unrestrained consumption can reduce the ability of future generations to meet their needs even if they do gain from economic and technological progress.

In this atmosphere, there has been an eruption in the theories and perceptions on intergenerational justice. The following section provides an abridged account of the main school of thoughts around intergenerational

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<sup>17</sup> United Nations Framework Convention on Climate Change, 12 December 2015. Adoption of the Paris Agreement (FCCC/CP/2015/L.9).

<sup>18</sup> OECD, Glossary of Statistical Terms. Available from: <https://stats.oecd.org/glossary/detail.asp?ID=1387>

<sup>19</sup> Report of the Secretary General: Intergenerational Solidarity and the Needs of Future Generations, 5 August 2013 (A/68/x), para.10, p.8.

justice in the context of the relationship among generations to our planet. The first is the *preservationist* approach, in which the present generation does not destroy or deplete the resources of planet Earth; rather it conserves resources and the same level of quality in all aspects of the environment for the future generations. This model is somehow consistent with the Socialist economic model in which future generations benefit at the expense of the sacrifices made by earlier ones.

In contrast, the *opulence* model assumes that present generations can consume indefinitely and generate as much wealth as they can, either because there is no evidence that future generations will ever exist or because maximizing consumption today is the best way to maximize wealth for the future generations. The opulence model is consistent with the argument that generations who fail to protect the environment may as well have passed on sufficient wealth so that their successors can bear the cost of remediation. In either cases, the opulence model ignores the long-term and irreversible impact of unsustainable consumption patterns on the natural system and the climate.

A more confident version of the opulence model is the *technology* model. It argues that technology will undoubtedly enable humans to develop innovative alternatives for certain natural resources and to use existing resources more efficiently. Yet, this model has little concern that technological gains might be more than offset by environmental deterioration. The *environmental economic model* on the other hand claims that if we were to do proper natural resource accounting and promote green economics we would fulfil our obligations to future generations.<sup>20</sup>

In addition to these theories, it is useful to consider other influential approaches that have examined the concept intergenerational justice in the context of equity and social justice rather than the environment.<sup>21</sup> For example, the *indirect reciprocity* theory is an extension of the social justice principle of reciprocity – the idea that we should return to others what we received from them. In the intergenerational context, the return is indirect in that what we received from our parents we are returning to our children rather than to our parents. Scholars have identified two problems to indirect reciprocity as the basis for intergenerational justice. First, it is based on the idea that we have obligations to the dead, which makes sense only if the dead exist, which many disagree with. Second, many argue that reciprocity is not necessary for justice.

Similarly, the theory of *mutual advantage* has been adapted from the social justice principle and extended to the intergenerational context. The main argument against self-interest as a basis for justice is that it requires co-existence – a condition clearly not met beyond the immediate next generation or two. In parallel, the *utilitarian* theory is based on the notion that justice is defined by what maximizes the aggregate welfare. In the intergenerational context, this implies that it does not matter how much benefit accrues to any given generation as long as the total is as large as possible. While most philosophers use the utilitarian theory as a benchmark for discussion, they maintain that any theory of justice (*intra* or *inter*-generational) must be concerned with the distribution across individuals and that extremes of inequality are unjust.

Another prominent view in this vein is the *Libertarian model*. Libertarians are known for their strong protection of ownership and social justice issues arise primarily with regard to the source of ownership – that is, the original allocation of property. Although some libertarians rely strictly on a first-come, first

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<sup>20</sup> This section is adapted from E. Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (Transnational/United Nations University, 1989) and E. Brown Weiss, "Our Rights and Obligations to Future Generations for the Environment," 84 *American Journal of International Law*, 198 (1990), available at: <http://archive.unu.edu/unupress/unupbooks/uu25ee/uu25ee0z.htm>

<sup>21</sup> For a summary of philosophical schools of thought related to Intergenerational Justice, see, Gosseries (2008)

served principle, many consider that the original status of land and other resources was collective ownership and therefore apply a *Lockean proviso* of appropriation<sup>22</sup>. The Lockean proviso principle is generally interpreted to mean that any initial allocation is acceptable so long as “there is enough and as good left for others.” However, several questions arise in applying this proviso to the intergenerational context. First, is the standard for enough and as good what the first (prehistoric) generation had? Second, is the current generation required to compensate for events beyond their control, such as a natural disaster or environmental degradation caused by previous generations?

*Rawlsian* theorists take a practical approach to addressing these questions. Rawls’ vision of social justice does not always require equality. Instead, it requires that each person should have enough to be able to defend their basic rights and to interact as free citizens not subject to political domination. The application of this concept to the intergenerational context is not direct since there is no interaction between distant generations. Rather, the Rawlsian rule for intergenerational justice is that we must leave enough to the next generation so they can provide institutions of social justice. Finally, the *just saving* view argue that the main duty owed to future generations is the saving of sufficient material capital to maintain just institutions or fair systems of governance over time. This includes for example saving in means of production, in learning and in education to preserve the gains in culture and society.

## **B. The principles of Intergenerational Justice**

Intergenerational justice rests on three integrally linked principles that are essential for sustainable development. According to Weiss (1992), these principles form the basis of a set of rights and obligations that have a temporal dimension, i.e. that are held by each generation, including planetary or cultural rights or right to development. In the context of the relationship between humankind and the environment, these principles recognize the right of each generation to use the planet resources for its own benefit but constrain the actions of the present generations in doing so. In other words, each generation is obliged to set scientific and moral criteria for defining the actions that violate these rights, leaving the decision on how to manage resources at the discretion of each generation. In this context, **the Conservation of Options Principle** suggests that each generation should be required to conserve the diversity of the natural and cultural heritage in order to prevent their loss and leave a flexible set of options that future generations can use to satisfy their preferences, solve problems and lead a healthy life. It is argued that the best way to conserve options is through technological developments that create substitutes for existing resources or new methods to use resources more efficiently.

**The Conservation of Quality Principle** suggests that each generations should be required to maintain the quality of the environment so that it is passed on in the same or better condition than that in which it was received. This principle is a significant concern in the context of high population growth and fertility, which are still evident in several low-income Arab countries. Whether a generation chooses to meet its obligations by reducing the levels of resource exploitation and consumption or by shifting population policies to curb population growth is an important decision. Last, **the Conservation of Access Principle** assumes that each generation should provide its members with equitable, non-discriminatory rights of access to the endowments of past generations and should conserve this access for future generations. This entails that all public decisions or policies needs to be examined from the point of view of their impact on future generations, including *inter alia* decisions regarding war and peace, economic and social policy, health and education, all of which influence the lives and well-being of future generations. As the next section will

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<sup>22</sup> Named after John Locke who believed that individuals could acquire property rights in previously unowned goods by “mixing their labour” with it and on the condition that an act of appropriation was not any prejudice to any other man.

show, this approach to intergenerational justice corresponds largely with the principles of social justice. In fact, it implies that members of the present generations are encouraged to remove the barriers that traditionally marginalized and socially excluded individuals and groups of the future generation may face in accessing wealth and natural resources.

Conserving the quality of the natural and cultural environment may be argued as inconsistent with conserving the present generations' access to natural resources and that trade-offs are inevitable. For example, the current generations may exploit more energy resources and cause pollution but at the same time pass on a higher level of income, capital and knowledge that will enable future generations to develop substitutes for the depleted resources or new methods for reducing pollutants. In such cases, specific models should be developed to project the extent of biodiversity loss and resource quality, in addition to the technological change or the human intervention required to balance trade-offs<sup>23</sup>.

### **C. Intergenerational Justice as Key Element of Social Justice**

Social justice is a broad concept that underscores the fair and just relation between the individual and society and is indispensable to promote development and uphold human dignity. The term is intrinsically linked to the notions of rights and responsibilities and is often measured by the fair distribution of wealth, access to equal opportunities and equality of outcomes. Such a broad denomination has led to the consensus that social justice is upheld when we promote human rights and remove the barriers that people face because of gender, age, race, ethnicity, religion, culture or disability or other factors that lock people's agency.

The United Nations sustains a similar expression of social justice and describes it as the fair and compassionate distribution of the fruits of economic growth<sup>24</sup>. This process must assure that growth is sustainable, that the integrity of the natural environment is respected, that the use of non-renewable resources is rationalized and that future generations are able to enjoy a beautiful and hospitable earth. Using a similar approach, the United Nations Economic and Social Commission for Western Asia (UNESCWA) defines social justice as "the equal rights and access to resources and opportunities for all, men and women, paying particular attention to the removal of barriers that hinder the empowerment of disadvantaged groups to fulfil their potential to participate in decisions that govern their lives". In this context, social justice rests on the principles of equality, equity, rights and participation.<sup>25</sup>

Conversations about intergenerational justice, as indicated in previous sections, also occur in the context of discourses on social justice. In effect, the twenty-eighth Ministerial Session of ESCWA convening in Tunis in 2014 linked the achievement of social justice to the objectives of intergenerational justice. Critically, the discussions cautioned that current consumption patterns of water and energy resources will undeniably violate the rights of future Arab generations to access these resources unless they are converted into wealth and invested in other sustainable economic activities or sovereign funds. The discussions further underscored the economic and social policies that have far-reaching implications on future generations including taxation, national debt, infrastructure, education and health policies. In this vein, it is useful to consider how the four pillars of the social justice interact with the concept of intergenerational justice:

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<sup>23</sup> For more information, see Edith Brown Weiss (1992), Intergenerational equity: a legal framework for global environmental change in *Environmental change and international law: New challenges and dimensions*. Ed. by Edith Brown Weiss. United Nations University Press, Tokyo. Available from <http://archive.unu.edu/unupress/unupbooks/uu25ee/uu25ee0z.htm>

<sup>24</sup> United Nations, Social Justice in an Open World: The Role of the United Nations, 2006 (ST/ESA/305), p. 7.

<sup>25</sup> ESCWA (2014). Social Justice in the Policies of Arab States (E/ESCWA/28/8).

## 1. Equality

Article 1 and 2 of the *Universal Declaration of Human Rights*, as well as in the International Covenants on Human Rights declare that all human beings are born free and equal in dignity and rights and should therefore enjoy equal treatment and freedoms, irrespective of their race, colour, sex, language, disability, religion, opinion or origin<sup>26</sup>. Traditionally, the concept of equality has been related to equality of outcomes (for example income), equality of opportunities (access to services) in addition to equality of autonomy (voice and participation). This can result from explicit or implicit barriers to certain groups of the population such as discrimination against women or persons with disabilities among others. From an intergenerational perspective, the emphasis of the human rights instruments on “all people” means that the concept is applied to include future people – i.e. those not yet alive.

## 2. Equity

Equity is concerned with preserving opportunities and ‘leveling the playing field’ so that all groups of societies benefit from the fruits of growth in a fair and just manner. In other words, equity is about giving disadvantaged men and women an extra weight in the distribution of resources, services, and opportunities so they achieve equal outcomes<sup>27</sup>. Equity is very central to the ideals of intergenerational justice. It posits that there should be a minimum level of income and environmental quality below which nobody falls and that no individuals or groups of people should be asked to carry a greater environmental burden than the rest of the community. It is generally agreed that equity implies a need for people living today to preserve the same opportunities of future generations, without precluding their choices. Under these circumstances, current generations should not sacrifice certain privileges unless it seems reasonable that it would preserve the options for future generations.

## 3. Rights

The observance of human rights in all their forms is a prerequisite for achieving social justice. The concept of rights comprises both legal rights that are normally associated with duties (such as the right to receive remuneration for work) and moral or basic rights (such as the right to life and the right to an adequate standard of living). From an intergenerational justice perspective, the latter set translates to a right of common heritage or patrimony. Some scholars, as indicated earlier, have argued that future persons cannot have inherent rights because they do not yet exist and, therefore, cannot “have” anything, including rights. Moreover, neither the number of future men and women nor their needs and desires are known. Indeed, it is not even clear that “they” will exist. While these arguments are somehow valid and constrain the approach taken to the legal rights of future generations, what our discussion has shown is that these arguments do not apply to moral rights. In particular, the notion of universal human rights for every individual applies equally to individuals not yet born and imposes consequent obligations on present individuals.

## 4. Participation

The right to social justice translates into the right to participate or engage in decisions that govern people’s lives. This engagement can assume different forms and objectives depending on the cultural and political system in which it operates, including information-seeking, consultation, dialogue, public debate,

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<sup>26</sup> ESCWA, 2015. Social Development Report No. 1 “What is left of the Spring?” (E/ESCWA/SDD/2015/3) in Arabic.

<sup>27</sup> Ibid.

conciliation/mediation and joint decisions. In turn, citizens' engagement is perhaps the most challenging aspect of intergenerational justice because, by definition, future generations are not able to speak for themselves. While current generations can make decisions on their behalf, the quality of these decisions will be compromised by how little is known about future generations. Perhaps even more importantly, decisions will be influenced by the natural tendency to care most deeply for those closest to us in time and space. For example, the participation of today's youth may be increased based on the expectation that they have a longer time horizon than today's older generations do. Nevertheless, their decisions will also be biased towards their own experiences and will suffer from short-sightedness. Critically, some of the decisions enacted today will probably perpetuate the same forms of discrimination or exclusions against certain social groups and prolong existing injustices..

#### **D. Intergenerational Justice as key Element of Sustainable Development**

In the period that followed the publication of the Brundtland Report "Our Common Future" in 1987 leading to the 1992 Earth Summit, the world community increasingly recognized the inherent interdependence between environmental sustainability and human longevity. The adoption of the sustainable development concept meant a significant shift from traditional environmental policies towards models that aim at rebalancing environmental, social and economic goals while respecting the interests of future generations.

What characterizes the concept of sustainable development is to achieve growth and meet human development goals in an inclusive manner while sustaining the ability of the ecosystem to provide the resources necessary to meet the needs of today's and future populations. The concept also underscores that the consequences of global environmental change are inherently long-standing and require that we address equity and justice issues that span over more than one generation. This means that unless consumption and production patterns become sustainable, environmental pressures will increase dramatically with further population and economic growth, exacerbating social exclusion and inequalities. Hence, understanding how current strategies, policies and actions on sustainable development are likely to impact future generations is paramount.

In this context, the Sustainable Development Goals (SDGs) of the 2030 Agenda provide a normative framework that fosters collaboration across countries and promote integrated thinking along the different dimensions of sustainable development: economic development, social inclusion, environmental sustainability and good governance, including peace and security. They seek to address global challenges to sustainable development and guide countries towards policy choices that leave no one behind (Figure 1). The question of "who those left behind are" itself has an intergenerational dimension because it also embraces people who will be living in the future and reflects the dynamic and temporal nature of poverty, inequality and social exclusion. In implementing the SDGs, countries and stakeholders will have to make a choice for moving away from the business-as-usual trajectory towards a sustainable development path because fifteen years from now, both the current and next generations will assess the extent to which the goals allowed every single person to lead a decent life, regardless of sex, race, age, religion, residency or any other factor.

The promise of the Agenda 2030 to transform our future would require "a significant shift in perspective: from seeing social and environmental issues as the consequences of economic policy choices, to conditioning economic choices on sustainable and just social and ecological outcomes".

\* UNRISD, 2016. *Policy Innovations for Transformative Change: Implementing the 2030 Agenda for Sustainable Development*. UNRISD, Geneva, p.147.

Moreover, intergenerational justice cuts systematically across several sustainable development goals and targets. The goals related to clean energy (Goal 7), responsible consumption and production (Goal 12), climate action (Goal 13), life below water (Goal 14) and on land (Goal 15), perhaps have the most noticeable links to the welfare of future generations. In effect, even those goals that are primarily focused on *intragenerational* justice – such as poverty, inequalities, health and education as well as gender and peace, – also provide objectives in direct relation with future generations, because their impacts extend beyond the current generation.

Figure 1. The Sustainable Development Goals



## V. The Dimensions and Measurement of Intergenerational Justice

There is no doubt that the increased attention to intergenerational issues has placed this concept at the forefront of development agendas. Yet, for many activists on this front, very little has been done to delineate its dimensions or to articulate a coherent mechanism for its measurement. The primary effort made in this direction is the Intergenerational Justice Index (IJI), developed in the context of the Bertelsmann Stiftung Sustainable Governance Indicators Project which has been examining the performance of OECD countries in sustainable governance since 2009.<sup>28</sup> The index comprises a set of indicators that represent the environmental, economic and social dimensions of the legacies left for future generations, namely the **natural environment, child poverty, public debt, and the generational bias of social spending.**

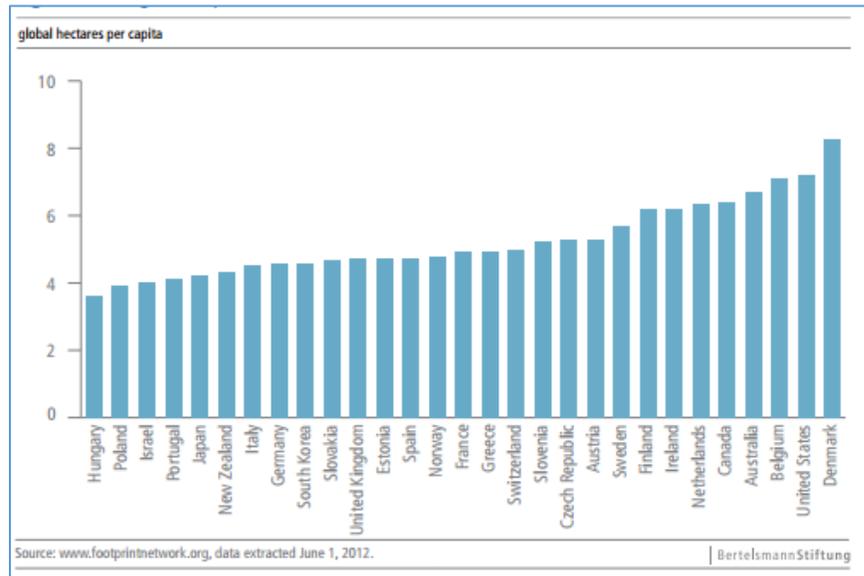
### 1. The Ecological Dimension of Intergenerational Justice: The natural environment

The state of the natural environment left to future generations is more likely the most recognizable aspect of intergenerational justice, as it is the most permanent and essential basis for human life. The principle of intergenerational justice applied to the natural environment is that our use of the natural environment ought not to exceed its regeneration capacity – at a global level if not at a national/regional level. In this context, a distinction can be made between clearly irreversible impacts such as biodiversity loss or depletion of non-renewable resources and other impacts such as the extensive use of renewable resources. The IJI uses **the ecological footprint** of today’s generations to measure human demand on nature and identify if the use of the natural environment is exceeding the earth’s regeneration capacity. The ecological footprint is measured in “global hectares” and is used to quantify all the resources needed to produce all goods consumed by a

<sup>28</sup> See Pieter Vanhuysse (2013). Intergenerational Justice in Aging Societies: A Cross-national Comparison of 29 OECD Countries.

given country and to absorb all wastes generated by their production<sup>29</sup>. To illustrate this concept further, Figure 2 presents the ecological footprints for the OECD countries and, shows that Denmark has caused the largest ecological footprint in 2008, with a footprint of over eight global hectares per capita followed by the United States and Belgium while Hungary fared as the most environmentally-friendly country on this dimension.<sup>30</sup>

**Figure 2. Ecological Footprint for OECD Countries, 2008**



A more refined approach to assess the environmental dimension of intergenerational justice is the **net ecological surplus**, which measures the ecological footprint relative to actual capacity of the country's natural environment – also known as the **biocapacity**.<sup>31</sup> A net ecological surplus occurs when the biocapacity of a country exceeds its ecological footprint. Defined this way, net ecological surplus can be used as a physical measure of the environmental reserves (if positive) or deficits (if negative) created by current generations and left by them to subsequent generations.

In addition to these two measures, several SDGs indicators provide a practical starting point to examine *specific* aspects of the natural environment. These include: the renewable energy share in total final energy consumption (indicator 7.2.1), domestic material consumption per capita (indicator 8.4.2) and proportion of fish stocks within biologically sustainable levels (indicator 14.4.1).

## 2. The Social Dimension of Intergenerational Justice: Child poverty

<sup>29</sup> Global hectares are aggregated units of surface measurement in which all kinds of biologically productive areas are converted by means of equivalence factors (e.g., a hectare of pasture equals 0.5 global hectares; a hectare of forest equals 1.4 global hectares). Examples of biologically productive areas include cropland, forests, and fishing grounds. "Global hectare per person" refers to the amount of biologically productive land and water available per person on the planet.

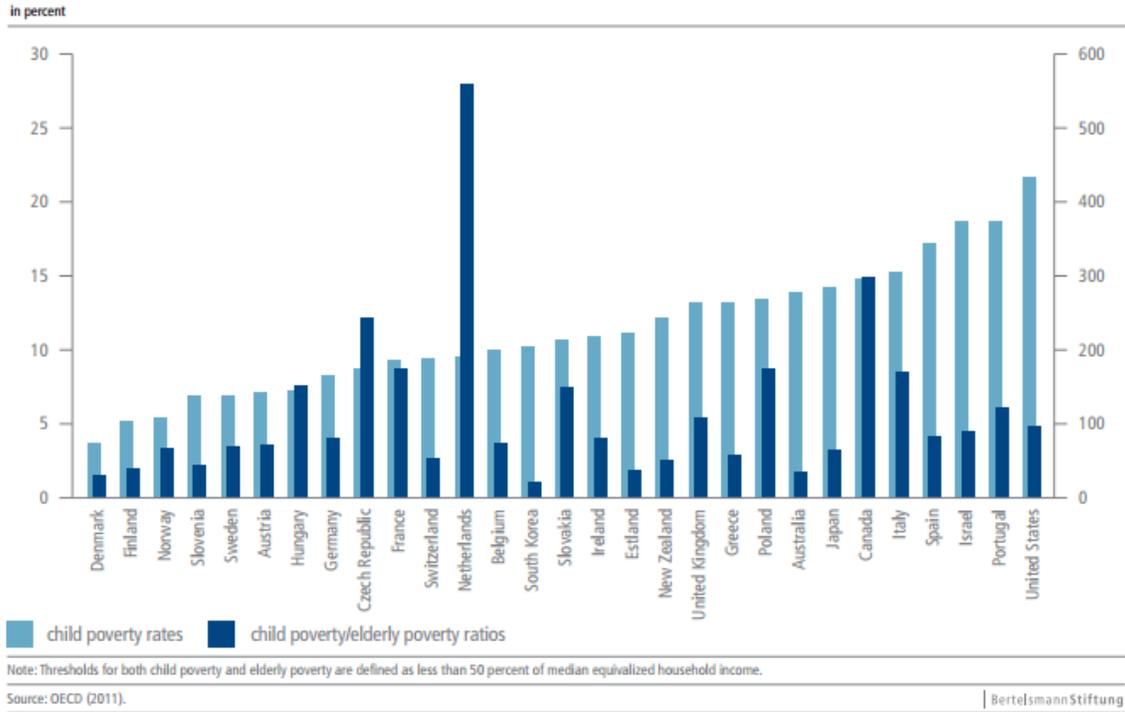
<sup>30</sup> Vanhuyse (2013).

<sup>31</sup> Biocapacity represents the planet's biologically productive land areas including our forests, pastures, cropland and fisheries. These areas, especially if left unharvested, can also absorb much of the waste we generate, especially our carbon emissions. Biocapacity is particularly useful to examine over time because the capacity of the natural environment depends in part on policies such as ecosystem management, fertilizer use and irrigation and ecosystem degradation. For more details see footprintnetwork.org.

Child poverty is an important measure of intergenerational justice in that starting conditions and related life chances should be largely the same for everyone. Child poverty is considered the measure of choice for intergenerational justice rather than overall poverty in that children can neither economically fend for themselves nor can they have a political voice, so the burden of responsibility is more clearly on the choices and policies of the adult generation. Moreover, child poverty is important for the future because it creates a legacy of problems that span over poor children’s lives and affects not only those individuals but has spillover effects on their entire cohort. These range from lower levels of readiness for school, to lower cognitive and behavioral skills and lower educational outcomes, and later still to higher rates of unemployment and more welfare dependency and poverty. It is important to note in this context that in many countries, economic hardship, gender inequality, cultural practices and conflict encourage early or child marriage. This practice not only disempowers women but can impact generations to come as it negatively affects women’s health and their education as well as their children’s. It should be noted that the IJI’s measure of child poverty is country-specific and therefore reflects inequality rather than an absolute level of deprivation.<sup>32</sup>

Figure 3 illustrates child poverty as well as the ratio of child poverty to elderly poverty for the OECD countries. It shows that child poverty rates are particularly high in the United States and particularly low in Nordic countries. Critically, child poverty is worse when it is much higher than poverty among older persons. For example, child poverty rates were dramatically higher than elderly poverty rates in the Netherlands and the Czech Republic whereas the opposite is held in South Korea and Australia, pointing to specific policy-related deficiencies in these countries.<sup>33</sup>

**Figure 3. Child poverty rates (left axis) and child poverty/elderly poverty ratios (right axis), late 2000s.**



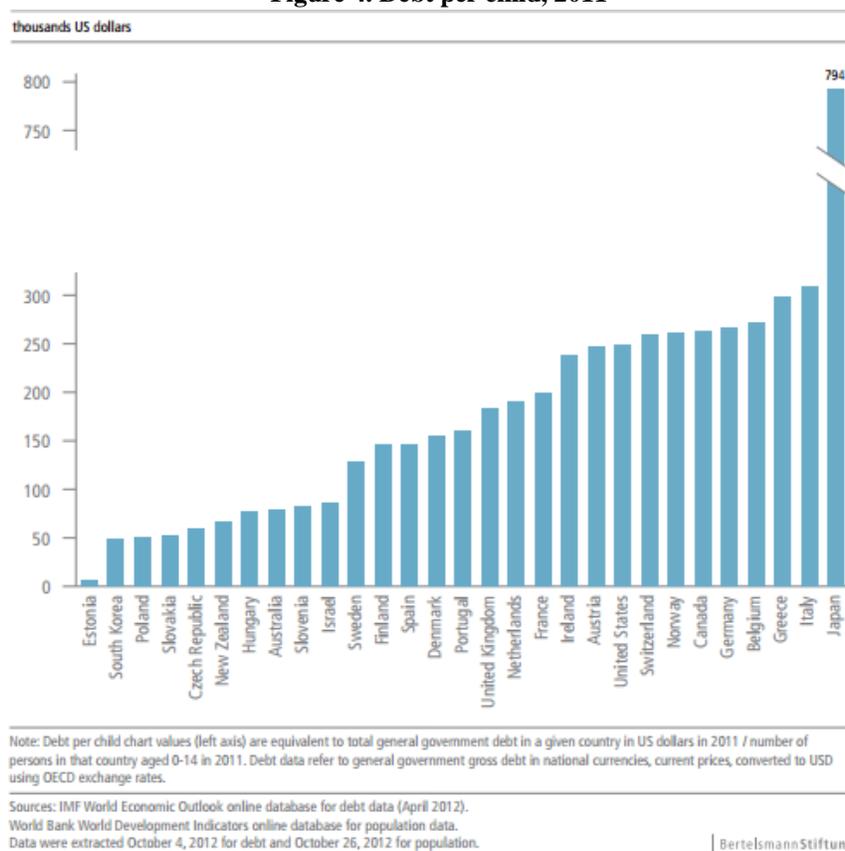
<sup>32</sup> The measure of child poverty is based on a poverty threshold defined as 50 percent of median equivalized household income.  
<sup>33</sup> Vanhuyse (2013).

In parallel, other social indicators have not been opted to measure intergenerational justice to the extent they could have. For example, youth unemployment has been suggested as a potential indicator to address the legacy of life chances given to the next generation. Yet, it is considered less precise than child poverty because youth employment includes an aspect of personal effort that renders it hard to attribute unemployment rates solely to public policy deficit. Similarly, poverty, in both monetary and multidimensional terms has been proposed as an alternative indicator, particularly due to the strong tendency for parent-to-child transmission of poverty and in such cases where child poverty data is lacking.

### 3. The Economic Dimension of Intergenerational Justice: Public debt per child

It is generally agreed that irresponsible spending patterns and high debt levels shift consumption toward current generations and away from future generations. This implies that succeeding generations will not only have fewer resources to spend but will also be obliged to refinance repayment of this debt through lower consumption or significant productivity increases. In this context, the **Net public debt per child**, defined as the total government debt divided by the total number of persons aged below 15 is proposed to identify if today's generations are shifting an aggregate fiscal burden onto future generations and contributing to intergenerational injustice. Figure 4 shows public debt per child for the OECD countries and suggests that children in Japan, Italy and Greece inherit the largest public debt from their parents' generation while children in Estonia inherit almost no public debt.<sup>34</sup>

Figure 4. Debt per child, 2011



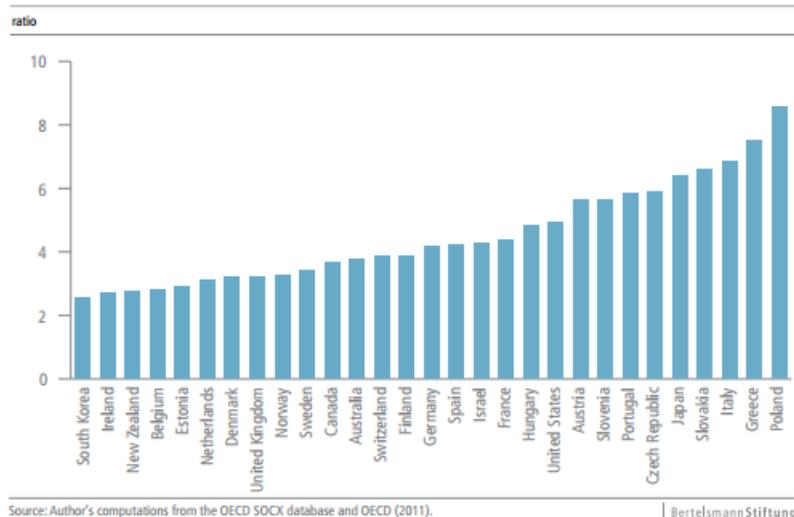
<sup>34</sup> Vanhuysse (2013).

However, it is important to note here that the choice of public debt – or sovereign debt- as an indicator of generational justice, is not ideal. In fact, if managed correctly, government debt can be used to improve education and pensions and also finance investments in infrastructure in order to meet the needs of both current and future generations. To supplement the public debt indicator and provide a better economic perspective of intergenerational justice, the **Adjusted Net National Income (ANNI)** and the **Gross Savings** are also used. The ANNI adjusts Gross National Income for depletion of natural resources and fixed man-made capital. ANNI is a measure of sustainable production in that, unlike standard measures of income, ANNI considers exploitation of natural resources as a cost of production. At the same time, Gross savings per capita or as a percentage of GDP can also be used as an indicator of the extent to which current generations are providing for future generations. As the next sections will show, in countries that are benefitting from economic windfalls, such as natural resource rents, the extent to which they make good use of sovereign wealth funds is an indication of saving for future generations.<sup>35</sup>

#### 4. Generational Bias in Social Spending as a Tool for Intergenerational Justice

In addition to the above three dimensions of the legacy left to future generations, the Intergenerational Justice Index proposes an indicator of current government spending policy expressed as the fiscal spending bias towards the elderly relative to children. Specifically, the **Elderly Bias Indicator of Social Spending** is the ratio of elderly-oriented spending to non-elderly-oriented spending, adjusted for the demographics of a given country. The numerator includes variables such as pensions, while the denominator includes family allowances, active labor market programs and spending on education, for example. Figure 5 traces the bias in social spending in OECD countries and indicates that Poland spent more than 8 times as much on each elderly person as it spent on each non-elderly person in the late 2000s, despite its young demographic structure.<sup>36</sup>

**Figure 5. The elderly bias indicator of social spending, 2007-2008.**



<sup>35</sup>There is a large literature on sovereign wealth funds. Norway's sovereign wealth fund is often considered among the best managed in the world. See Financial Times (2015).

<sup>36</sup> Vanhuysse (2013)

Other types of social spending have been also proposed, but are often considered less accurate for the purposes of measuring intergenerational justice. Health spending, for example, is a good indicator of social justice but does not allow a focus on intergenerational issues because of the difficulty in determining the share of spending allocated to each age group. Similarly, Zakat, a form of alms-giving in Muslim societies, is generally viewed as an income tax and is considered as an important tool for income redistribution and intergenerational solidarity. However, using it as an indicator for intergenerational justice is not likely due to dearth of data on the share of zakat that goes to the elderly as compared to the share that goes to children.

## **VI. A Snapshot of Selected Intergenerational Justice Issues in the Arab Region**

The concern for the welfare of children and grandchildren is a fundamental value in Arab societies, reproducing collective knowledge, shared beliefs and history, and is an appreciation for the legacy people leave behind. Moreover, the main religions in the region place an important significance on social justice and intergenerational solidarity. Nevertheless, there has been relatively little organized debate in the region on issues of the natural environment and other dimensions of intergenerational justice or on the tradeoffs related to fiscal choices particularly those affecting future generations.

In the face of this challenge and other factors, the data required to construct the Intergenerational Justice Index are hard to come by in the Arab Region. Consequently, the following section presents select alternative indicators, which have close ties to intergenerational justice and can serve as good proxies to map it at national or regional levels. However before exploring these alternatives, it is important to highlight that the relationship between the four components of the Intergenerational Justice Index is closely linked to two important aspects that typify the Arab region namely, the demographic makeup and the reliance on natural resource rents.

### ***The demographic profile of the Arab region***

The Arab region has witnessed a rapid decline in mortality rates and a less hasty decline in fertility in recent decades resulting in high population growth. Collectively, these transformations have resulted into a large proportion of children and young people in the age groups (0-14) and (15-24) and eventually translated into a bulge in the working age population (25-64). Figure 6 shows that these trends are expected to continue unabated over the next few decades albeit to varying degrees between countries of the region depending on the pace of fertility decline.<sup>37</sup> In this context, the working age population in the region is projected to increase from 52.3 percent in 1980 to 64 percent in 2050. At the same time, the pace of ageing is expected to pick up around 2020 and the proportion of older persons is projected to amplify to an average of 10.6 percent by mid-century as a result of increased longevity in many parts of the region.<sup>38</sup>

From an intergenerational perspective, the changes in the age structure that are observed during this period are significant. In countries that are largely youthful and where fertility is declining, the large birth cohorts will grow into the productive ages while child dependency declines. At the same time, even though the number of older persons is increasing, the growth of the working age population will be faster. This process is known as the first demographic dividend and means that fewer numbers of people will depend on the

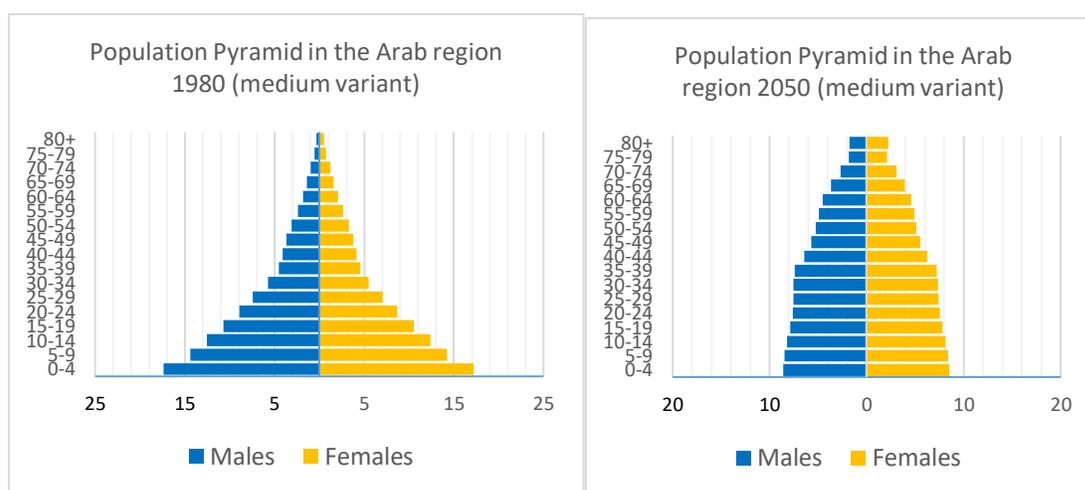
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<sup>37</sup> The countries with a fertility above 4 children per woman in 2015 were Comoros, Mauritania and Sudan and also Iraq and the State of Palestine. For more information, see ESCWA, 2015. Demographic Profile of the Arab Region: *Realizing the Demographic Dividend* (E/ESCWA/SDD/2015/Technical Paper.12)

<sup>38</sup> Ibid.

working age population. In other words, the dividend will free more resources for savings and investment in economic development as well as in the education and health of future generations. In parallel, in countries where fertility is already low, the large share of the working-age population will start to come of age leading to an increase in the proportion of older persons. A second demographic dividend is likely to ensue in these societies only if the working age population succeeded to accumulate enough wealth to bring long-term paybacks in terms of health support and retirement benefits once these cohorts transition into old age. **This means that in order to maximize the intergenerational impact of the demographic dividends, Arab governments must integrate the social, economic and environmental dimensions of development and instate a right to quality and opportunity in education, health, labour, social protection and natural capital among other public goods, equally for all men and women.**

**Figure 6. Population Age-Structure in the Arab Region in 1980 and 2050**



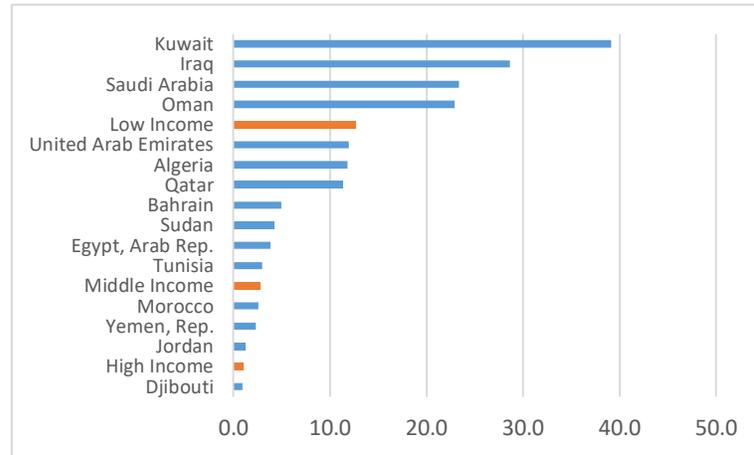
Source: Calculated by ESCWA from the United Nations, Department of Economic and Social Affairs, Population Division (2015). *World Population Prospects: The 2015 Revision*

### ***Natural Resource Rents***

On the economic front and despite various initiatives to decrease reliance on rents, many Arab countries continue to derive a significant amount of their GDP from natural resource rents (Figure 7)<sup>39</sup>. For the most part, these rents are based on non-renewable resources such as petroleum and minerals. To the extent these resources will be important for future generations there is a strong argument that consumption of these resources should be reduced to accommodate the needs of future generations. Some would argue, however, that these resources will not be important for future generations as alternative renewable sources of energy will be developed. In this case, the primary issue becomes not about maintaining the resource stocks, but is about saving a significant share of the rents as a means of spreading the windfall income over time. This issue is elaborated below in the context of sovereign wealth funds.

<sup>39</sup> Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. Source: World Bank Databank. <http://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS>, last visited 10 April 2017.

**Figure 7. Total Natural Resource Rents in selected Arab countries as percentage of GDP, 2015**



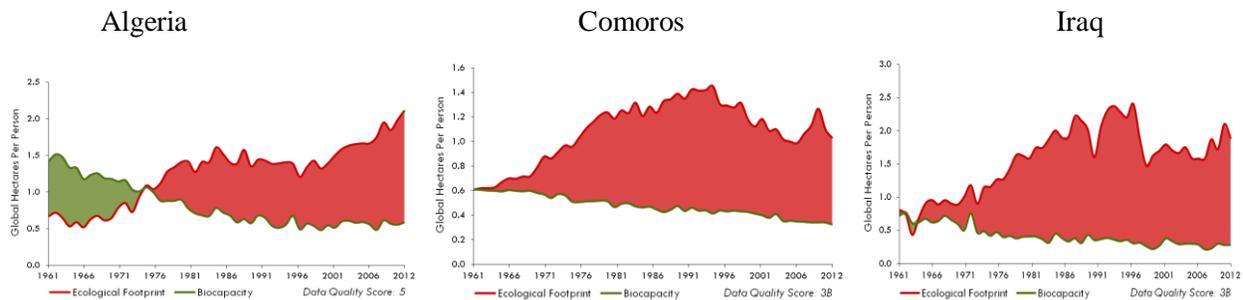
Source: World Bank Databank. Available at <http://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS>. Accessed on 10 April 2017.

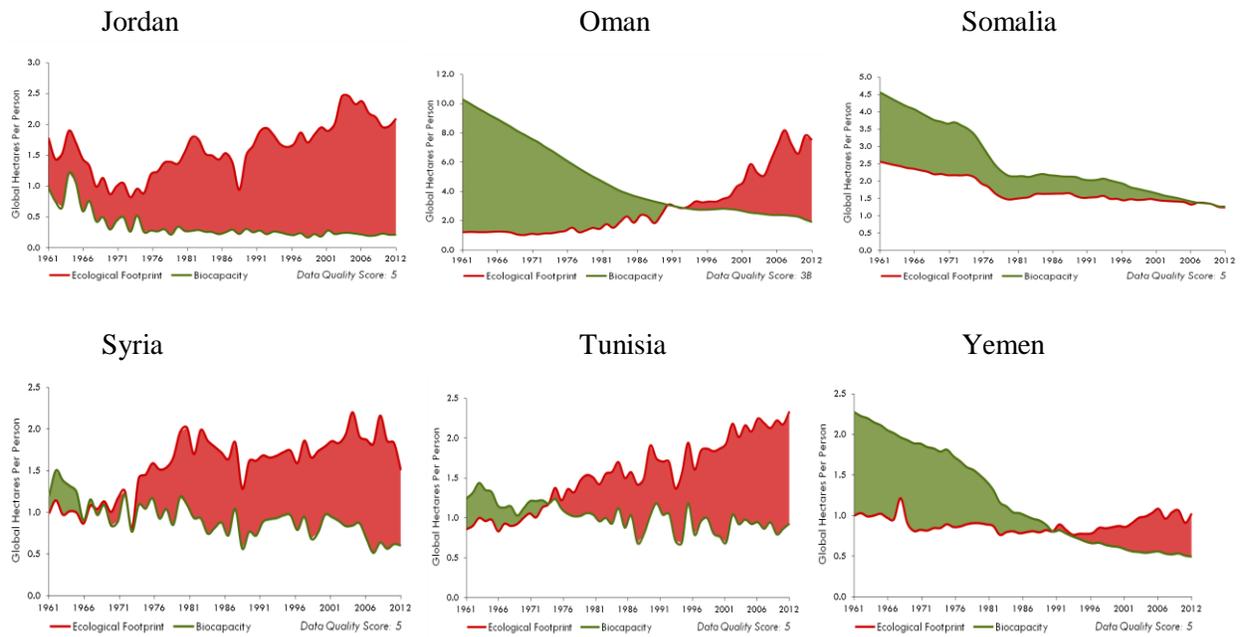
Against this backdrop, the following sections describe how the Arab Region fares in the four areas of the Intergenerational Justice Index. As explained earlier, given that the data for the Intergenerational Justice Index indicators is not publically available for the region, the discussion resorts to alternative indicators where applicable.

### A. The natural environment

The measure proposed by the Intergenerational Justice indicator on the natural environment legacy is available for nine of the Arab countries. Figures 8 tracks the ecological footprint and biocapacity per person over time and shows that the ecological footprint or the pressure citizens are putting on the global environment has increased in all countries except Somalia and Yemen. Critically, all countries in the region are ecological net debtors, meaning that they use more resources than what is renewably available within their own borders. This is particularly worrisome when most were net creditors as recently as the 1960s.

**Figure 8. Ecological Footprint and Biocapacity in Selected Arab Countries, 1961-2012**





Source: Global Footprint Network (2016). Available at <http://www.footprintnetwork.org/en/index.php/GFN/>

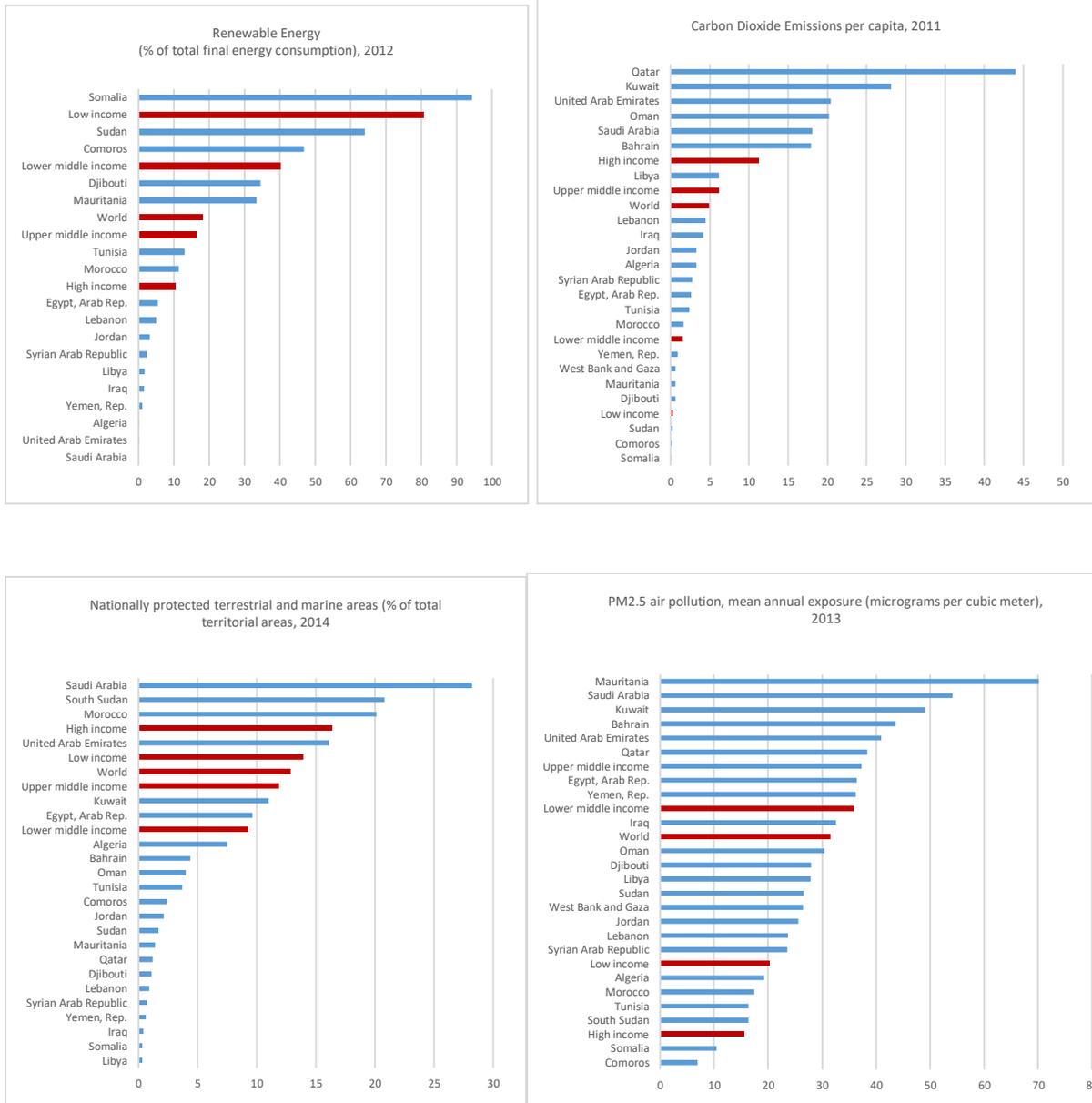
The United Arab Emirates provides a good example of how knowledge about resource use can impact policy. In 2006, the UAE had the largest ecological footprint of any country in the world. In an effort to remedy the situation the government launched an initiative with the Global Footprint Network. In the first stage of this initiative, the UAE became the third country in the world, after Switzerland and Japan, to conduct in-depth research on its own ecological footprint. On the basis of this research, the UAE began implementing education and action campaigns for both households and government agencies to reduce their footprints, particularly through reducing energy and water consumption. As a result, the offices of the Ministry of Environment and Water are estimated to be consuming 44 percent less water and 24 percent less carbon energy.<sup>40</sup>

The adoption of Sustainable Development Goals offers an additional opportunity for examining specific aspects of the natural environment legacy. What is important in this context is that in most cases, the indicators of the natural environment are strongly linked to the GDP per capita. In fact, the situation in the Arab countries mirrors that for the World where the use of renewable energy tends to be lowest and carbon dioxide emissions tend to be highest among the wealthiest countries. In other words, wealthy countries are not making use of their technological know-how to minimize their impact and protect the environment.

The situation in terms of protected areas is more mixed: middle income countries tend to have the lowest share of their territory set aside as protected, and this holds true in the Arab countries as well as the world as a whole. The indicator on which the Arab countries are anomalous to the world trend is air pollution. Internationally, wealthy countries tend to control their air pollution better than either low or middle income countries. In the Arab countries, on the other hand, the wealthiest countries – including Saudi Arabia, Kuwait, Bahrain, the UAE and Qatar have very high levels of air pollution (Figure 9).

<sup>40</sup> [http://www.footprintnetwork.org/en/index.php/GFN/page/uae\\_case\\_story/](http://www.footprintnetwork.org/en/index.php/GFN/page/uae_case_story/).

**Figure 9. The performance of Arab Countries in selected Sustainable Development Goals Indicators**



Sources: OECD/IEA and World Bank (2013). Available at <http://data.worldbank.org/indicator/EG.FEC.RNEW.ZS>; Brauer, M. et al. 2016. Available at <http://data.worldbank.org/indicator/EN.ATM.PM25.MC.M3>; United Nations Environmental Program and the World Conservation Monitoring Centre. Available at <http://data.worldbank.org/indicator/ER.LND.PTLD.ZS>; and Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory, Tennessee, United States. Available at <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC>. Accessed on 12 September 2016.

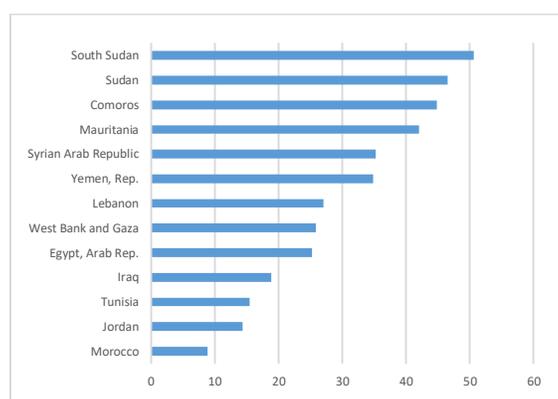
## B. Child poverty

As mentioned earlier, child poverty is an important indicator of life opportunities of the next generation. High levels of child poverty can have strong negative implications for future education, health, job and income opportunities among a cohort. Moreover, societies in which child poverty rates exceed old-age

poverty rates tend to perform poorly in terms of intergenerational justice. Given that data on this indicator is not always available in the Arab countries, other indicators such as overall poverty, under-five mortality and malnutrition can be used as proxies to examine the social dimension of intergenerational justice. In this context, the increase in overall poverty is correlated with an increase in child poverty due to the high tendency for poverty to be transmitted from parents to children<sup>41</sup>.

The proportion of the population in the Arab Region living below the international poverty line of \$1.25 is 7.4 per cent compared to a world average of 14.5 percent. Nevertheless, the trend over the past two decades has been unfavorable with an increase of 34.5 percent.<sup>42</sup> Using national poverty rates,<sup>43</sup> Figure 10 demonstrates that a large number of children in low income countries such as Sudan, Comoros and Mauritania among other countries do not have the life chances that would be expected in an intergenerationally just world. This finding also implies a combination of intraregional inequality as well as inequality within countries.

**Figure 10. Poverty Rates using national poverty lines, 2016 or most recent available**



Source: Compiled by the World Bank. Available at <http://data.worldbank.org/indicator/SI.POV.NAHC>. Accessed on 12 September 2016.

At the same time, Arab countries have made a significant progress in reducing under-five child mortality by 54.3 percent over the past two decades and the value for the region as a whole is 35.6 per 1,000 live births as compared to the world average of 42.5 percent.<sup>44</sup> However, figure 11 reveals that this progress masks an inequality of opportunity between countries where the life chances of the next generation are most constrained in the poorest and conflict-ridden countries (Box 3).

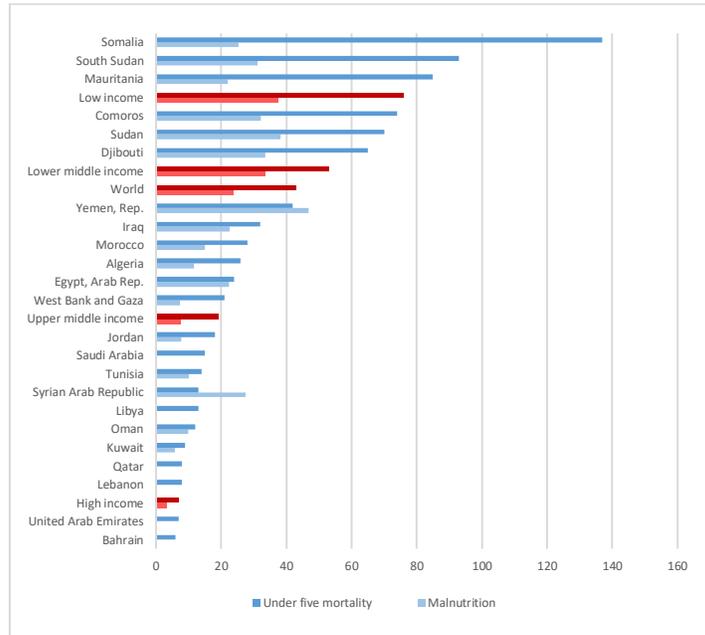
<sup>41</sup> See, for example, Bird and Higgins (2011) for a summary of the extensive literature on this topic.

<sup>42</sup> The trend based on national poverty lines shows little change. ESCWA (2015)

<sup>43</sup> National poverty rates are determined by individual countries using their own methodologies. For more information, please see the statistical agencies of specific countries.

<sup>44</sup> ESCWA (2015)

**Figure 11. Child Health in the Arab Countries, Malnutrition 2008 – 2014, Under Five Mortality 2015**



Source: Compiled by World Bank. Available at <http://wdi.worldbank.org/table/2.18>. Accessed on 12 September 2016.

### **Box 3: The devastating effects of conflict on child welfare in Syria and Yemen**

The ever-increasing struggle for power in Syria and Yemen has reversed development gains and had a significant impact on the health and welfare of children while increasing their odds of becoming a lost generation.

In Syria, Grave child rights violations continue unabated for the sixth year with thousands of children killed and injured due to the persistent use of explosive weapons. The large scale of the conflict and the deliberate subversion of the infrastructure in some areas has left millions of children without access to fundamental basic services such as health care, clean water and sanitation. In 2016, an estimated 13.5 million people, including 6 million Syrian children were in need of humanitarian assistance (1). Furthermore, 420,000 million children lived in besieged locations with limited access to humanitarian aid. The situation was made worse by a spike in the internally displaced and refugee population marking it as the largest humanitarian crisis ever since the end of World War II. According to recent figures, almost 3 million children are internally displaced (2) and 2.2 million children have been registered as refugees in neighboring countries (3). The disintegration of public services is having serious implications on the educational and health prospects of children. In this context, 5.7 million children are in need of education support in Syria and across the region, including 2.7 million who are missing out on years of schooling. Consequently, children in Syria are at an increased risk of exploitation, including recruitment into armed forces and groups, early and forced marriage, sexual abuse, child labour and family separation.

In Yemen, the rates of child malnutrition have been the highest in the world long before the breakout of the current crisis with more than one million children suffering from acute malnutrition. Today, the humanitarian situation has reached famine levels. The two-years old conflict and the deteriorating economic conditions has led to a critical shortage of food, medicines and basic supplies leaving 4 million people in the country acutely malnourished, including 2 million children suffering from acute malnutrition and more than 460,000 children under five suffering from severe acute malnutrition. If not immediately treated, these symptoms can reach life-threatening levels or have serious short and long-term consequences on their physical and intellectual growth. These deficiencies are further compounded the near collapse of essential public services which has left millions of families with inadequate access to safe water and sanitation and limited or no access to primary health services, placing children and women (pregnant and lactating women) more at risk, particularly girls married at an early age. In the absence of adequate immunization coverage, those children suffering from malnutrition are also more vulnerable to infectious diseases and other life-threatening complications (5).

Sources:

1) <https://www.humanitarianresponse.info/en/operations/syria>

2) <https://www.unicef.org/appeals/syria.html>

3) <https://www.unicef.org/appeals/syrianrefugees.html#4>.

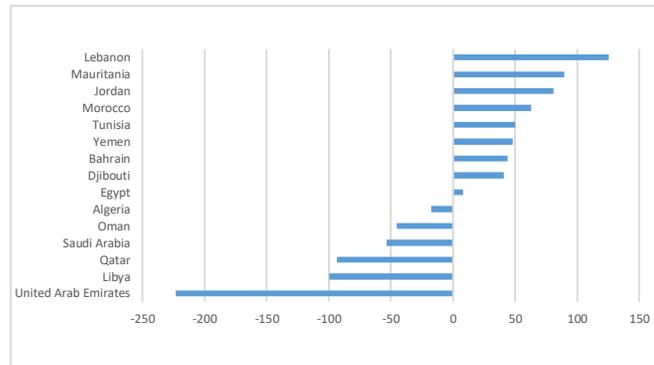
4) <https://www.humanitarianresponse.info/en/operations/syria>

5) WHO, Health in emergencies *update* September-October 2016 and UNICEF Humanitarian Action for Children website, available at <https://www.unicef.org/appeals/yemen.html#7>.

### C. Public debt

The measure of public debt left to future generations proposed by the Intergenerational Justice Index is the total public debt per child in USD terms. Acknowledging that data on this indicator is not available for Arab countries, government debt as a percentage of GDP is used as a proxy to measure the legacy of burdens left by current generations. As figure 12 shows, Arab countries range widely in terms of government debt, with several countries in surplus, more likely due to their current high spending on subsidies and debt service obligations.

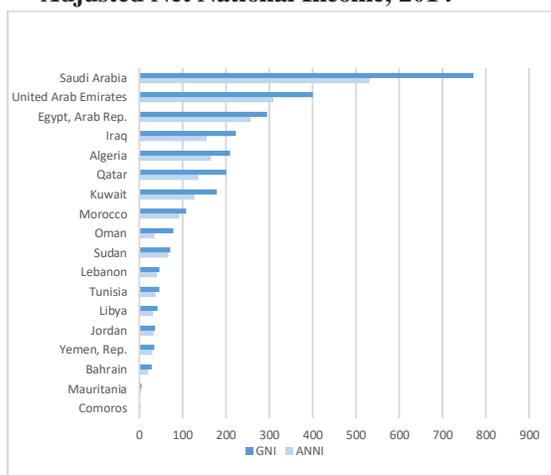
**Figure 12. Government Debt in Selected Arab Countries as percent of GDP, April 2016**



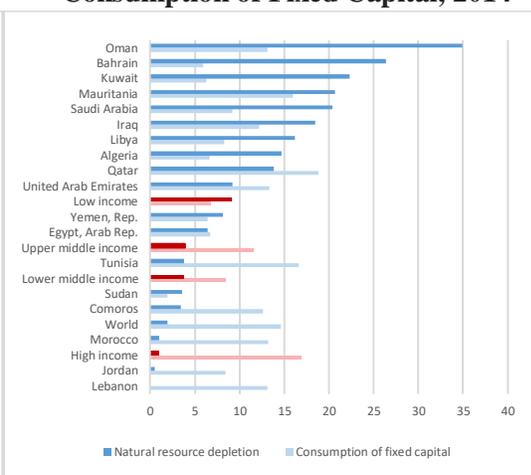
Source: IMF Economic Outlook Database. Available at <https://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx> Accessed on 12 September 2016.

Although measures of debt are limited, data is available on the related macroeconomic concepts of production and savings. The Adjusted Net National Income provides a portrait of economic growth that is strikingly different from the one provided by GDP. The key to increasing future consumption and thus the standard of living lies in increasing national wealth - including not only the traditional measures of capital such as produced and human capital but also natural capital such as sub-soil resources. By accounting for the consumption of fixed and natural capital depletion, the Adjusted Net National Income better measures the income available for consumption or for investment to increase a country's future consumption. Unfortunately, a large share of the Adjusted Net National Income in such countries as Oman, Bahrain and Kuwait is a direct consequence of rapid drawing down of non-renewable natural resources (Figures 13 and 14).

**Figure 13. Gross National Income and Adjusted Net National Income, 2014**



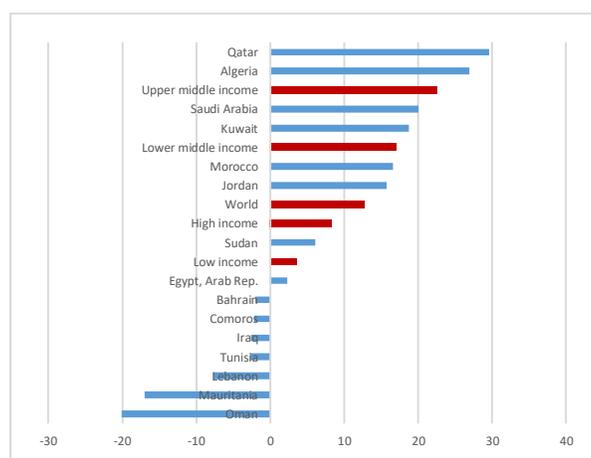
**Figure 14. Natural Resource Depletion and Consumption of Fixed Capital, 2014**



Sources: World Bank national accounts data, and OECD National Accounts data files. Available at <http://wdi.worldbank.org/table/4.10>. Accessed on 12 September 2016.

An additional approach in this context is to examine the Adjusted Net Savings indicator that measures the change in value of a specified set of assets, excluding capital gains. If a country's Adjusted Net Savings are positive and the accounting includes a sufficiently broad range of assets, economic theory suggests that the present value of social welfare is increasing. Conversely, persistently negative Adjusted Net Savings indicate that an economy is on an unsustainable path (Figure 15).<sup>45</sup>

**Figure 15. Adjusted Net Savings, 2014**



Sources: World Bank national accounts data, and OECD National Accounts data files. Available at <http://wdi.worldbank.org/table/4.10>. Accessed on 12 September 2016.

<sup>45</sup> Adjusted net saving measures the true rate of saving in an economy after taking into account investments in human capital, depletion of natural resources and damages caused by pollution. Adjusted net saving, known informally as genuine saving, is an indicator that aims to assess an economy's sustainability based on the concepts of extended national accounts. Positive savings allow wealth to grow over time thus ensuring that future generations enjoy at least as many opportunities as current generations. In this sense, adjusted net saving seeks to offer policymakers who have committed their countries to a "sustainable" development pathway, an indicator to track their progress in this endeavor. It is important to note that unlike the standard measure of savings, Adjusted Net Savings treats public education expenditures as savings.

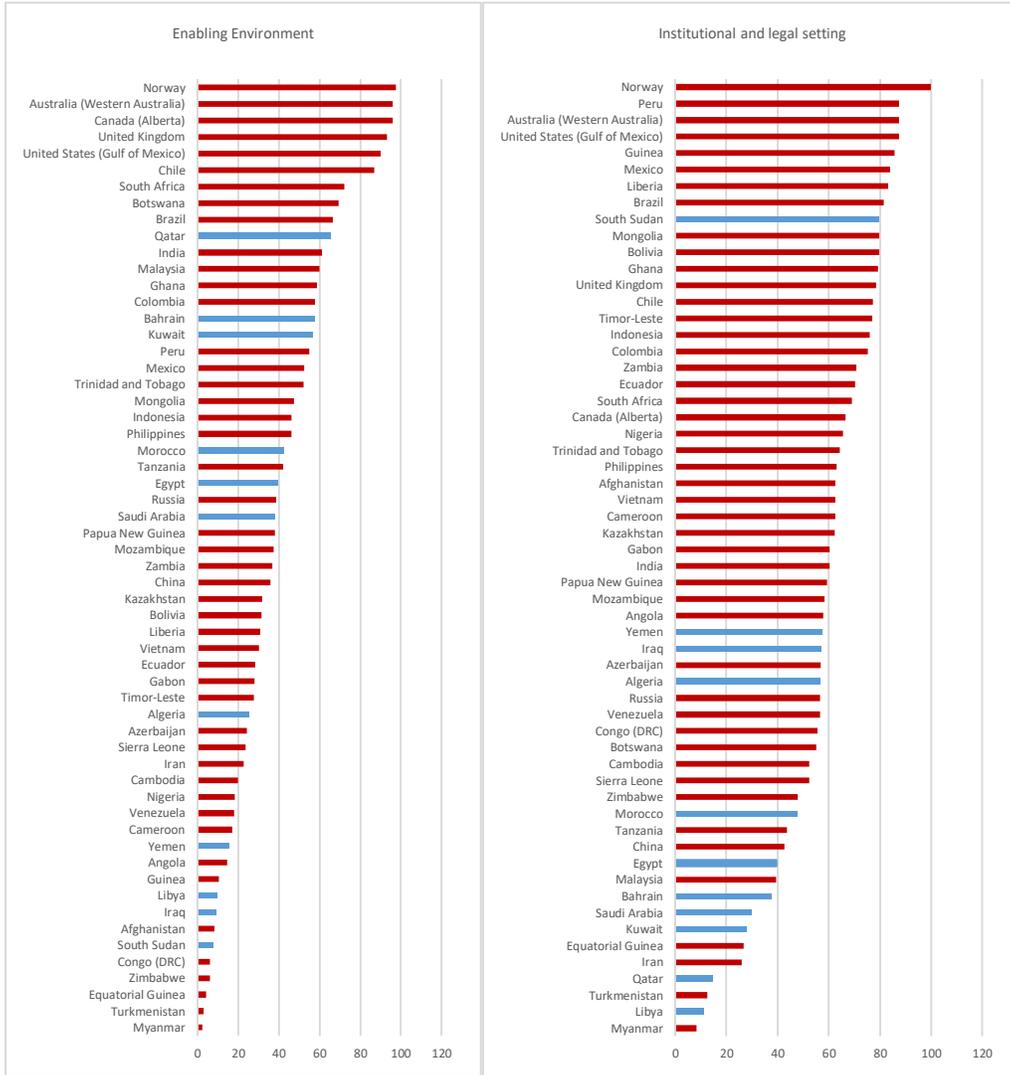
Additionally, the returns on the sale of non-renewable natural resources are a major component of GDP for several countries in the Arab Region and hence can be used as an alternative indicator of saving for future generations. Those countries typically do not have debt, but rather are net savers. In this context, the good governance of natural resources and the savings generated from their sales is essential for intergenerational justice.

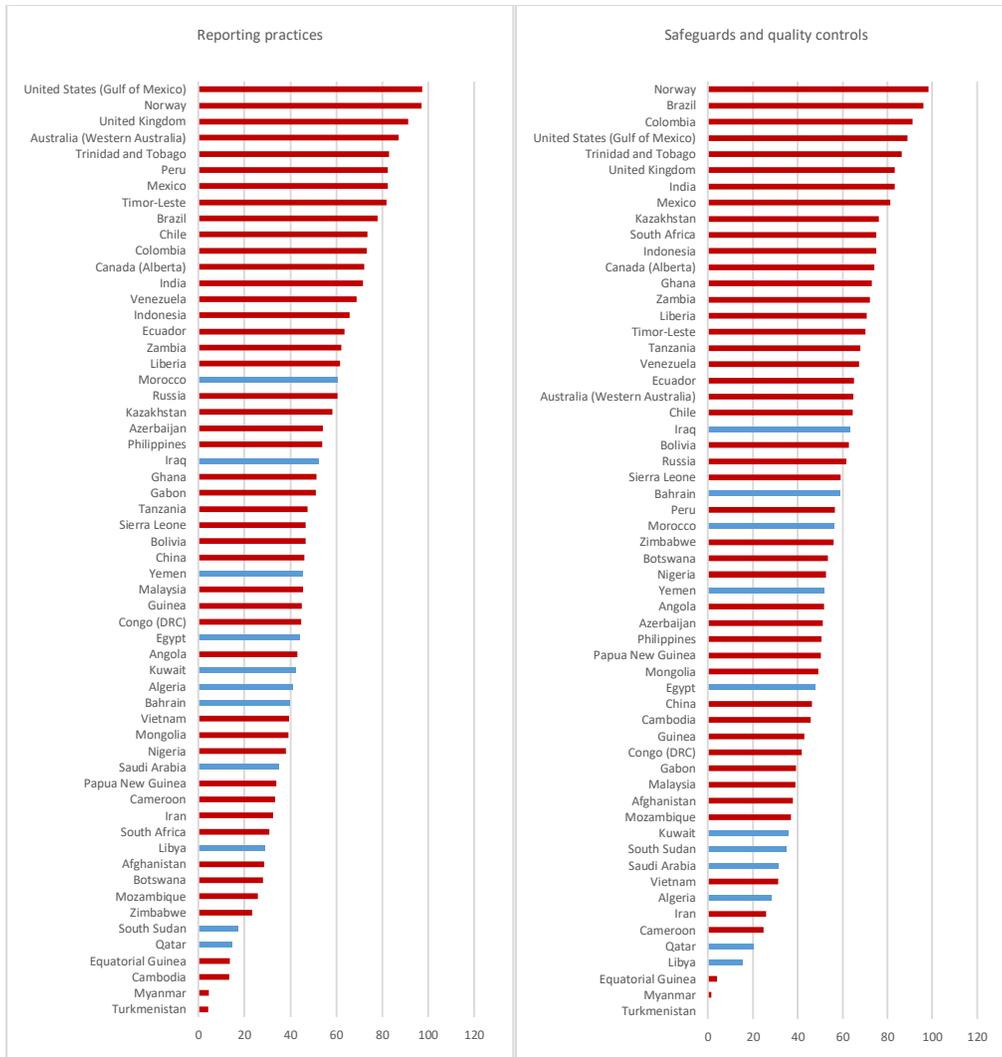
Natural resource management can be measured at a country level or, where relevant, for specific Sovereign Wealth Funds. The Resource Governance Index, developed by the Natural Resource Governance Institute, measures the quality of governance in the oil, gas and mining sector of 58 countries. The Index assesses the quality of four key governance components, namely: Institutional and Legal Setting; Reporting Practices; Safeguards and Quality Controls; and Enabling Environment. The Arab countries score relatively well on Enabling Environment but relatively poorly on their Institutional and Legal Setting. In terms of Enabling Environment, Qatar and Bahrain both have effective government and control of corruption despite low scores on the Resource Governance Index democratic accountability measure. However, in terms of Institutional and Legal Setting, Qatar, Kuwait and Libya lack a clear legal structure for extractive industries and their transparency mechanisms are classified as weak <sup>46</sup> (Figure 16).

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<sup>46</sup> For more information see <http://www.resourcegovernance.org/>

**Figure 16. Performance of countries on selected Resource Governance Index components**





Source: Natural Resource Governance Institute. The 2013 Resource Governance Index Available at <http://www.resourcegovernance.org/resource-governance-index>

Against this background, a Natural Resource Fund – a type of Sovereign Wealth Fund – is an investment vehicle owned by a government whose principle source of financing is revenue derived from oil, gas or mineral sales. When well managed, Natural Resource Funds can provide savings to cover deficits when revenues decline – either in the short term or explicitly for future generations.<sup>47</sup> However, poorly managed funds can serve as sources of patronage and nepotism. To support effectiveness, a voluntary code called the “Santiago Principles” was developed to articulate a set of governance and financial disclosure standards. According to the Santiago Compliance Index of October 2014<sup>48</sup> the four Sovereign Wealth Funds from the Arab world that have endorsed the Principles, Abu Dhabi Investment Authority, Kuwait Investment Authority, Qatar Investment Authority and Libya Investment Authority – still lag behind in their public

<sup>47</sup> NRFs are also used to mitigate Dutch Disease by investing abroad of as a mechanism to earmark resource revenues for specific expenditure items.

<sup>48</sup> Geoeconomica 2014 Santiago Compliance Index 2014 Assessing the Governance Arrangements and Financial Disclosure Policies of Global Sovereign Wealth Funds

disclosure policies.<sup>49</sup> They also largely fail to provide robust and verifiable narratives of their governance arrangements based on relevant legislation, charters and other constitutive documents or management agreements. Moreover, neither the Kuwait Future Generations Fund nor the Abu Dhabi Investment Authority have clear rules governing withdrawals.<sup>50</sup> ( Figure 17).

**Figure 17. Santiago Compliance Index, 2014**

Fund	Rating
<i>Fully Compliant</i>	
Petroleum Fund for Timore-Lest	A
PRF/ESSF (Chile)	A
Future Fund (Australia)	A-
New Zealand Superannuation Fund	A-
Government Pension Fund Global (Norway)	A-
Heritage and Stabilization Fund (Trinidad and Tobago)	A-
<i>Broadly Compliant</i>	
State Oil Fund of Azerbaijan	B+
Pula Fund (Botswana)	B+
Nigerian Sovereign Investment Authority	B+
JSC National Investment Corp. (Kazakhstan)	B
Korea Investment Corporation	B
Temasek Holdings (Singapore)	B
Reserve/National Wealth Fund (Russia)	B-
Fundo Soberano de Angola	B-
<i>Partially Compliant</i>	
China Investment Corp.	C+
Abu Dhabi Investment Authority	C+
GIC Private Limited (Singapore)	C+
Khazanah Nasional Berhad (Malaysia)	C+
National Development Fund (Iran)	C+
Russian Direct Investment Fund	C
Kuwait Investment Authority	C
Libya Investment Authority	C
<i>Non-Compliant</i>	
Qatar Investment Authority	D

Source: Geoeconomica, 2014 Santiago Compliance Index 2014 Assessing the Governance Arrangements and Financial Disclosure and Policies of Global Sovereign Wealth Funds. Available at <http://www.geoeconomica.com/index.php/newsreader-9/items/69.html>.

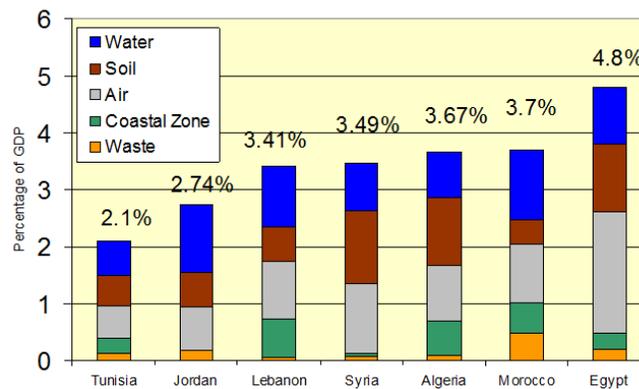
Another important issue that links natural resources to fiscal issues is **the cost of environmental degradation**, which evaluates the annual damage caused by economic activities to such environmental aspects as water, air quality, agricultural land, forests, waste and coastal zones in monetary terms and reflects the estimates as percentages of the countries' gross domestic product. In some Arab countries, the cost of environmental degradation has been estimated to range between 2.1 and 4.8 percent of GDP but the

<sup>49</sup> None of the four funds maintains qualitatively robust public financial disclosure practices, such as publicly disclosing audited income statements or balance sheets, robust disclosure of funding and withdrawal arrangements, or disclosure of meaningful financial performance indicators.

<sup>50</sup> See also Natural Resource Governance Institute (2014) Natural Resource Funds Fund Profiles and Policy Briefs. (Available at: [http://www.resourcegovernance.org/analysis-tools/publications/natural-resource-funds-fund-profiles-and-policy-briefs\\_](http://www.resourcegovernance.org/analysis-tools/publications/natural-resource-funds-fund-profiles-and-policy-briefs_)

environment category that bears most of the impact varies by country (Figure 18).<sup>51</sup> In Egypt, for example, the main cost is associated with air pollution while in Syria, soil degradation had the highest costs as a percentage of GDP.

**Figure 18. The cost of environmental degradation in selected Arab Countries by environmental category as a percentage of GDP**



Source: Arif, Sherif (2005). The Cost of environmental inaction in Middle East and North Africa countries. Powerpoint presentation. Washington DC: the World Bank

#### D. The generational bias in social spending

The fiscal data required to examine the generational bias in spending, i.e. whether current spending is biased towards today's older population has not been collected for the Arab countries. However, evidence shows clearly that Arab countries invest heavily in education compared to benchmark countries, both in terms of education spending as a percentage of GDP and in absolute terms (Figure 19). Yet, the returns on education have been low for many Arab citizens for many reasons. First, the quality of education and its relevance, particularly in public schools in countries across the region leaves much to be desired: in internationally comparable tests of eighth graders, the average for the region (401) is well below the international average of 489.<sup>52</sup> Second, inequality based on wealth remains a key challenge in accessing education due to higher spending per pupil on advanced levels of education, which primarily benefit the wealthy. These deficiencies are not only affecting the employment opportunities and growth in the Arab region, but also undermining the potential for innovation and knowledge accumulation to serve the needs of future generations.

<sup>51</sup> Arif (2005).

<sup>52</sup> A large number of countries in the Middle East and North Africa region, in East Asia and Latin America now participate in international tests of eighth graders. The results capture the amount of math and language learned by those reaching the end of lower secondary school. See World Bank (2008) The Road Not Traveled: Education Reform in the Middle East and North Africa.

**Figure 19. Public Expenditure on Education**

Country	Public expenditure on education (% GDP)	Country	Primary spending/pupil (\$PPP)	Secondary spending/pupil (\$PPP)
<i>Arab Countries</i>		<i>Arab Countries</i>		
Algeria	6.1	Algeria	628	952
Bahrain	3.6	Bahrain	2620	2931
Djibouti	5.7	Jordan	596	705
Egypt	5.6	Kuwait	2709	3936
Jordan	6.5	Morocco	714	1831
Kuwait	6.3	Oman	1766	2765
Lebanon	2.9	Saudi Arabia	3817	3749
Morocco	5.9	Syria	477	883
Oman	3.9	Tunisa	1000	1530
Palestine	9.5	<i>Comparators</i>		
Saudi Arabia	6.3	China		
Syria	3.2	Indonesia	89	173
Tunisa	6.8	Korea	2882	4173
UAE	1.7	Malaysia	1778	2500
Yemen	5.8	Philippines	446	368
<i>Comparators</i>		Thailand	1027	728
China	2.3	Argentina	1164	1593
Indonesia	1.2	Brazil	832	829
Korea	3.9	Chile	1504	1480
Malaysia	6.2	Colombia	1077	1105
Philippines	3.4	Mexico	1264	1420
Thailand	4.8	Peru	305	419
Argentina	4.1	Uruguay	585	670
Brazil	3.6			
Chile	3.7			
Mexico	5			
Peru	3.1			

Sources: UNESCO Institute for Statistics, UNESCO Statistical Yearbooks and Statistical Appendix; World Bank, UNDP. Compiled in World Bank (2008).

## VII. Walking the talk: Achieving intergenerational justice in the Arab region

The understanding that each generation holds the earth as a trustee for its descendants is rooted in cultural, religious and philosophical values. Moreover, the breadth and number of legal instruments referring to intergenerational justice demonstrate that the concern for future generations has developed as a guiding principle in national constitutions and international norms, although these references remain, for the most part, in preambles instead of the operative narrative of these documents. At the same time, a legally binding instrument that commits States to the protection of future generations is yet to be seen. However, in a world of limited resources and rapidly changing environment, the need to preserve options and opportunities amidst competing interests requires urgent attention. This can only be achieved by embracing intergenerational

*We are made wise not by the recollection of our past but by the responsibility for our future” – George Bernard Shaw*

justice as a prerequisite for sustainable development, and by forging partnerships between all the stakeholders including the state, citizens, the private sector, the civil society and the international community, working together to achieve fair conditions for present and future generations.

Against this backdrop, this paper proposes a range of options to ensure that the concerns of future generations are mainstreamed in the policy-making processes. These proposals take stock from national and international experiences and can be grouped under four broad headings: 1) interventions into specific dimensions of intergenerational justice; 2) interventions to raise awareness on intergenerational issues, 3) interventions at the political and institutional levels; and 4) interventions to increase voice and build partnerships.

## **A. Interventions into the Specific Four Dimensions of Intergenerational Justice**

1. **Reconnecting with the natural environment:** A wide range of interventions have been proposed to reduce environmental footprints and improve biocapacity. However, we can state with some confidence that those related to the sustainable use of energy and water are key to Arab countries. In the area of energy, these include: improving energy pricing, reducing fuel subsidies and incorporating environmental costs in development planning. Such policy responses could not only reduce emissions but can significantly result in fiscal savings – as much as 8 percent of GDP in the Arab countries.<sup>53</sup> In addition, the region’s abundant sun and wind provide opportunities for investment in renewable energy.<sup>54</sup> In effect, actions are already being implemented in several Arab countries and can usefully be expanded. They include announcements of targets for renewable energy and the participation in regional plans such as the Pan-Arab Strategy for the Development of Renewable Energy 2030 and the Arab Renewable Energy Framework.<sup>55</sup>

At the same time, water pricing policies coupled with specific compensatory measures to reduce the impact on lower-income groups and ensure their rights to water, can rationalize water use. A recent International Monetary Fund report indicates that the Middle East and North Africa region continues to have the highest subsidies on water of any region despite its general water scarcity.<sup>56</sup> In addition, specific policies are needed to ensure efficient water use including the follow up on the recommendations of “The Arab Strategy for Water Security in the Arab Region to Meet the Challenges and Future Needs for Sustainable Development”<sup>57</sup>. In this context, the education and training of farmers, including women who work in agriculture, to adopt more efficient irrigation methods is key. Furthermore, although specific actions must be country specific, across the region, a better maintenance of water distribution networks to reduce leakage would address one of the main causes of water overuse.<sup>58</sup> Additional efforts include the development of safe and cost-effective desalination and treatment as is being done by the Kuwait Institute for Scientific Research,

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<sup>53</sup> Fossil fuel subsidies cost GCC countries more than \$20 billion in 2011, around 9 percent of GDP. Mashreq countries spent \$146 billion or 11 percent of GDP in the same year. In per capita terms, GCC countries spent the most with governments providing subsidies of around \$4,400 per capita in 2011. See Coady, D., I. Parry, L. Sears, and B. Shang. 2015. “How Large Are Global Energy Subsidies?” Working Paper 15/105, International Monetary Fund, Washington.

<sup>54</sup> Renewable energy (other than hydropower) constitutes less than 1 percent of electricity generation. See ESCWA (2016)

<sup>55</sup> See ESCWA (2015)

<sup>56</sup> Renewable (ground and surface) water is being withdrawn at an alarming rate, averaging over 1,000 per cent of available water. Fabrizio, Stephania et al. 2015. From Ambition to Execution: Policies in Support of Sustainable Development Goals IMF Staff Discussion Note 15/18.

<sup>57</sup> See ESCWA (2015) for details.

<sup>58</sup> ESCWA (2015)

and techniques to combat desertification and degradation of rangelands by the Arab Center for the Studies of Arid Zones and Dry Lands.<sup>59</sup>

Sustainable patterns of production and consumption are also paramount.<sup>60</sup> In this context, educating and empowering women plays an important role in promoting sustainable development and the quality of life for future generations, not only as consumers and producers but also as caregivers and educators. Other relevant measures under this category include reforming water and fuel subsidies, and providing incentives for conservation. These reforms should include measures to mitigate their impact on vulnerable groups while promoting technical support for industries as they adjust. The National Cleaner Production Centers established with the support of UNIDO and UNEP are an important step in this direction.<sup>61</sup> Comprehensive strategies for environmental aspects of sustainable development can provide opportunities for awareness raising as well as policy-making. Such strategies have already been developed in Morocco, Lebanon and Jordan.<sup>62</sup> **The key challenge is balancing fair access to natural resources by today's generations – including expanding access to the poor – while safeguarding the opportunities of succeeding generations.**

2. **Ending child poverty:** While the debate continues as to whether concern for future generations is justified, there is no doubt that investing in the future will be difficult when the present is still fighting poverty. In this context, any intervention that aims at reducing poverty in general in the current generations will impact future generations given the tendency for parent-to-child transmission. The lifelong impacts of child poverty are well established in sociological, psychological and economic research. Poor children have worse outcomes at school than do their peers, both because their families have fewer financial resources and because their parents, particularly mothers generally have less education, higher rates of single and teenaged parenthood, and poorer health.

In addition to interventions that address poverty in general, child poverty can be addressed by focusing on ways to help poor children overcome their disadvantages. In the absence of comprehensive approaches to social policy and social protection, specific investments in this context include: prohibition of child labor and child marriage; improving the health and nutrition of children and their mothers; enforcing universal education; ensuring school attendance and improving the quality of education; supporting asset accumulation and expanding specific social protection programmes targeting children as well as low income and female-headed households.

At the same time, specific measures targeting early childhood education are key.<sup>63</sup> One possible way to improve access to this service is through direct transfers, subsidies, tax exemptions, or contributions. Collectively, social organizations- NGOs, religious organizations or communities

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<sup>59</sup> See [www.kisr.edu.kw/en/research/water](http://www.kisr.edu.kw/en/research/water) and [www.acsad.org/index.php/en](http://www.acsad.org/index.php/en).

<sup>60</sup> For more information on sustainable consumption and production see [www.unep.org/rio20/About/SustainableConsumptionandProduction/tabid/102187/Default.aspx](http://www.unep.org/rio20/About/SustainableConsumptionandProduction/tabid/102187/Default.aspx).

<sup>61</sup> See [www.unido.org/ncpc.html](http://www.unido.org/ncpc.html).

<sup>62</sup> ESCWA (2015)

<sup>63</sup> Access to pre-primary education, measured in terms of gross enrolment, varies widely among countries: from Gross Enrollment Ratio above 80% like Kuwait and UAE to under 5% like Yemen, Mauritania, and Djibouti. Furthermore, the average Gross Enrollment Ratio for Arab countries remains much lower than the world average although there is slight improvement from 15% in 1999 to 19% in 2007. The majority of Early Childhood Care and Education programs are concentrated in cities and in the for-profit private sector, but five countries have programs targeting children from low socio-economic backgrounds. See UNESCO (2010).

also play a leading role in financing Early Childhood Care and Education services in cash or kind, such as donation of materials, buildings, or equipment.

Another key issue that dominates this area is the need to increase returns on education by improving quality and investing in qualified professionals. However, the reality that presents itself is the low status, salary and working conditions of teachers. The likelihood that the pervasiveness of these conditions prevails poses a challenge to the high turnover and retention among workers in this field.<sup>64</sup> In this context, several organizations have taken proactive steps to improve the availability and quality of early childhood education in the region. UNESCO prepared a comprehensive report on the issue including analysis and a series of recommendations.<sup>65</sup> UNESCO also established a Regional Early Childhood Education and Development Program to help the Arab States in making early childhood education widely available and accessible particularly among the more disadvantaged groups, and to enhance the quality of early childhood education.<sup>66</sup>

3. **Addressing public debt:** Two specific policy measures related to reducing the debt burden of future generations have received particular attention in the region: pension and sovereign wealth fund management. According to recent research, all pension systems in the region are financially unsustainable, with an implicit pension debt of as much as 170 percent of GDP in the case of Jordan.<sup>67</sup> Pension reform – such as increasing the retirement age and closing the gap between men and women – is particularly relevant to the Arab region given its demographic transition : the Arab countries have a window of opportunity to rectify the problem while a large portion of the population is still of working age. In most cases, pension reform will involve a combination of increasing the retirement age and may also include revision of benefits to make them less regressive.<sup>68</sup>

In parallel, improving the management of sovereign wealth fund presents an additional potential for addressing debt. The Revenue Watch Institute highlights several options for improving sovereign wealth management. These include the disclosure of contracts signed with extractive companies, production and timely dissemination of comprehensive reports by regulatory agencies on their operations, increased transparency and accountability standards for state-owned companies and Sovereign Wealth Funds, increased control over corruption improvement of the rule of law and respect for civil and political rights (including a free press) and accelerated adoption of international reporting standards for both governments and the private sector.

At the same time, fiscal policies must balance investments in those things that support provide a better world for future generations (e.g. early childhood education and investment in renewable

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<sup>64</sup> For more information see UNESCO (2010) and Faour et al (2006).

<sup>65</sup> Recommendations of the UNESCO report include: 1. Adopt a national strategy and a clear action plan with specific budget. 2. Establish a leading agency for Early Childhood Care and Education planning, implementation, follow-up, evaluation, and coordination. 3. Develop programs for children (0-3 years) especially for the marginalized children. (Catch them early) 4. Adopt parenting education programs and reach marginalized children. 5. Pay greater attention to the transition years (6-8 years). 6. Make better use of regional and international support for Early Childhood Care and Education projects by implementing pilot projects and designing instruments to assess their effectiveness. Also, the issue of sustainability should be addressed in terms of intensity and duration. 7. Establish a national data center and laboratory to track various Early Childhood Care and Education age groups and program quality across multiple years and relate findings to child, adolescent, and adult groups.

<sup>66</sup> For more information see [http://portal.unesco.org/en/ev.php-URL\\_ID=7022&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=7022&URL_DO=DO_TOPIC&URL_SECTION=201.html)

<sup>67</sup> Gustavo Demarco, and Montserrat Pallares –Miralles

<sup>68</sup> Hujo (2014).

energy) without increasing the debt burden passed onto those same generations. Fortunately, there are opportunities for simultaneous expanding fiscal space for key investments while minimizing debt burdens. Reducing fuel and water subsidies is an important example. The Arab Sustainable Development Report 2015 indicates that in many countries of the region including Bahrain, Lebanon, Yemen and Egypt, subsidies dwarf other key budgetary allocations. In fuel importing countries, subsidies represent a drain on budgets and pose a threat to debt sustainability. In Egypt, for example, the \$20.3 billion energy subsidies were greater than the \$19.2 billion fiscal deficit in 2010.<sup>69</sup>

In addition to these alternatives, other sources of funding for investments to benefit future generations without adding to their debt burden include several climate-related trust funds including those under the United Nations Framework Convention on Climate Change.<sup>70</sup>

4. **Reducing fiscal spending bias:** Several of the interventions mentioned above – notably child poverty programs and pension reform – have clear impacts on the intergenerational fiscal spending bias. An additional promising policy innovation is what could be labeled intergenerational earmarking. In this case, some portion of fiscal adjustment would be earmarked specifically on the improvement of one of the dimensions of intergenerational justice. For example, reduced fiscal burden from raising the retirement age could be associated with increased spending on early childhood education. The intergenerational earmarking element of such approaches might be particularly useful in making higher taxation or lower subsidies more palatable to citizens.<sup>71</sup>

In the same context, analytical techniques such as benefit incidence analysis, can help identify the winners and losers from various fiscal spending choices. Benefit incidence analysis is most commonly used to examine the impact of public expenditures, public transfers, taxes, subsidies, or policy changes that affect prices on different groups of interest, for instance households at different income levels or in different regions. Benefit incidence informs who benefits from services, transfers, or price changes. It is important to note here that although information showing the extent of bias is not sufficient to remove the bias, it is certainly a prerequisite to transparency and informed policy making.

## **B. Interventions to Raise Awareness on Intergenerational Issues**

1. **Understanding the moral obligations towards unborn generations in the context of justice and equality:** The present generations need to comprehend the concept of intergenerational justice and the entitlement of equality among generations. In other words, the present generations must decide on which moral ground the living people should act towards future people especially if it involves significant sacrifices today. To do so, the present generations need to understand why leaving the planet to our descendants in at least as good condition as we inherited it is rightful. The basis for our moral obligations towards future people is simply the equal concern and respect we owe to all humans, regardless of where and when they may have been born. From a social justice perspective, the cost of today's inaction on certain forms of discrimination and inequality, including gender inequality, means they will be perpetuated in the future resulting in a vicious circle of injustices.

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<sup>69</sup> ESCWA (2015)

<sup>70</sup> See ESCWA (2015) for more information.

<sup>71</sup> For more on this issue, see Vanhuyse (2013)

2. **Rationalizing the needs and sacrifices of present and current generations:** Although the precise needs and preferences of future generations can not be exactly known, these needs should be identified or projected to the extent possible. In this context, current generations should not sacrifice benefits unless it seems reasonable that it would yield a positive outcome in the future. At the same time, small gains for current generations should not be pursued when the actions have a high potential to harm future generations. In other words, in today's practices the focus should be on avoiding irreversible impacts on the ecosystems and on taking actions that benefit both present and future generations without implicating a burden to the present generations. In this context, it has been argued that the relationship between generations can be articulated in a positive manner, with less emphasis on the negative trade-offs and greater emphasis on synergies, or win-win situations. Another concern in this framework is where risks to the interests of future generations are obvious, present generations should exercise restraint, foregoing some benefits.
3. **Strengthening education for sustainable development:** Education in itself is critical to intergenerational justice as the means of transmitting accumulated knowledge to future generations. At the same time, concern for future generations should be nurtured through strengthening peace and civic education on global citizenship particularly among children and youth, development of sustainable development curricula, enhanced teacher training, more effective use of information and communication technologies to enhance learning outcomes and leadership training.

### C. Interventions at the Political and Institutional Levels

1. **Enshrining intergenerational justice in constitutions:** By default, constitutions are intergenerational instruments that are crafted to last for many generations. Ideally, constitutions should balance between protecting those values and rights the present generation understands to be fundamental while ensuring an intergenerational just behavior. This implies ensuring the right of future generations to define for themselves the values and needs they see as essential and providing them with the opportunity to modify the institutions they have inherited in light of their own experience.

Several countries have enshrined the rights of future generations in their constitutions. Examples include Bolivia, Ecuador, Germany, Kenya, Norway and South Africa. The constitution of **Bolivia** for instance provides that the State should ensure the responsible use of natural resources and the conservation of the environment for the welfare of current and future generations. Similarly, **Ecuador's** constitution states that in the management of non-renewable resources "the state shall give priority to responsibility between generations, the conservation of nature, the charging of royalties or other non-tax contributions and corporate shares"... It also provides that "the State shall exercise sovereignty over biodiversity, whose administration and management shall be conducted on the basis of responsibility between generations." In the **Norwegian** constitution, every person has the right to an environment that is conducive to health and that "Natural resources should be managed on the basis of comprehensive long-term considerations whereby this right will be safeguarded for future generations as well". Similar provisions on State's responsibility for the protection of the biodiversity in the interest of future generations are found in **Germany's** Basic Law. Moreover, both **South African** and **Kenyan**

constitutions emphasize the right of everyone to a clean and healthy environment for the benefit of present and future generations and that this right should be protected by law.<sup>72</sup>

2. **Institutionalizing the needs of future generations at the political and judiciary levels:** Future generations need to be represented effectively in decision-making processes today including at the legislative, administrative and judicial levels. Several countries around the world have acknowledged the importance of bringing the interests of future generations to the heart of policy-making and established institutions such as Commissions or Ombudsmen in various jurisdictions with mandates to protect the interests of future people. Countries such as **Canada, Finland, Hungary and New Zealand** either have an office with a direct or indirect bearing on the interests of future generations.<sup>73</sup>

In this context, Hungary has a Parliamentary Commissioner for Future Generations called the Green Ombudsman. The office is significantly empowered: it serves as an advisor to the Parliament on environmental policy and law, may initiate proceedings at the Constitutional Court or intervene in court litigations in the interest of future generations and the protection of the right to a healthy environment. In his legal and technical capacity, the Green Ombudsman can investigate complaints on environmental issues, identify solutions and resolve environmental disputes between authorities, citizens and NGOs. Moreover, the office participates in the domestic enforcement of international conventions related to the environment<sup>74</sup>. Recently, the office was replaced by a broader entity “The Office of the Commissioner for Fundamental Rights” whose mandate include among others to advise on plans directly affecting the quality of life of future generations.

Similarly, **New Zealand** established a Parliamentary Commissioner for the Environment with a mandate to collect information about the environment, review the government’s management of resources and act as an advisor on specific environmental issues that have relevance to future generations. In the case of **Finland**, the Committee for the Future was established to investigate “development factors and models of the future” and “conduct assessments of technological development and the effects of technology on the society”. In the case of **Canada**, the Commissioner of the Environment and Sustainable Development is responsible for conducting performance audits, assessing the extent to which government departments are meeting their sustainable development commitments and for overseeing the environmental petitions processes, including citizens’ petitions.

While there are no blue prints for establishing Ombudspersons or Commissions for Future Generations, their mandates need to be developed according to each country’s legal and cultural contexts. Moreover, in designing institutions for intergenerational justice, several challenges need to be addressed. First is the extent of independence an institution should have. On the one hand, being an integral part of government machinery can mean that governments may trust the messages delivered. Examples of integrated institutions include Finland’s Committee for Future which is limited to responding to Parliamentary requests and the Maltese Guardian of Future Generations which is imbedded in a

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<sup>72</sup> United Nations 2013, Report of the Secretary General on the Intergenerational Solidarity and the Needs of Future Generations (A/68/x)

<sup>73</sup> For more information on institutional mechanisms see Maja Gopel and Malte Arhelger (2010). How to Protect Future Generational Rights in European Governance. Intergenerational Justice Review. Volume 10/2010.

<sup>74</sup> Marcel Szabó, The Way Forward: Protecting Future Generations through the Institution of Green Ombudsman. Posted on *Future Justice* on 24 pril 2013, available from <http://www.futurejustice.org/blog/guest-contribution/an-example-guest-post/>

government ministry. On the other hand, independence can allow institutions to examine the impacts of legislative proposals and decisions in an unbiased way. Whatever their structure, a worrisome trend identified across countries is the tendency for these institutions, once established, to face subsequent challenges to their status: in Hungary and Malta the institutions have been weakened while the United Kingdom institution were abolished. The changes have usually occurred in the aftermath of changes in political control, possibly influenced by a perception that the bodies concerned were associated with other political groups and that they might be more critical to the new Government's policies. To overcome these challenges, intergenerational justice institutions require a well-defined mandate preferably set out under a specific treaty or law. They would be independent, transparent, with access to information, open to external assessment, technically competent and have a statutory position to survive political shocks.

#### **D. Interventions to Increase Voice and Build Partnerships**

1. **Promoting citizens' engagement in intergenerational issues:** Citizen's participation in policy decision making is an important aspect of social justice in general and intergenerational justice in particular. As Rawls argued, *intragenerational* social justice requires that each man and woman should have enough to be able to defend their basic rights and to interact as free citizens not subject to political domination while *intergenerational* justice requires that enough is left to the next generation so they can provide institutions of social justice.

Civil Society has a fundamental role in raising public awareness on intergenerational issues and in assessing the impact of political acts through an intergenerational lens. Civil society organizations can contribute to creating values of responsibility and "trusteeship", foster such values and empathy in current generations and develop a "morally mature culture"<sup>75</sup>. In this context it is important to point out that during Rio+20 the civil society Major Group Children and Youth together with the Alliance for Future Generations have proposed the establishment of a High Commissioner for Future Generations at the global level.

Moreover, civil society can act as a watchdog to sustainable development objectives, national and global, holding both governments and private institutions accountable for their implementation. In Philippines for example, the environment NGO 'Philippines Ecological Network' requested the Government in 1993 to cancel timber licenses on the grounds of a violation to their constitutional rights to a healthy environment but found themselves appealing to the Supreme Court on a question of legal standing. The Supreme Court acknowledged the rights of future generations to a healthy environment and ruled in favour of children as well as that of future generations.

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<sup>75</sup> Conference Synopsis of the Global Conference on Implementing Intergenerational Equity: Bringing future perspectives to the status quo, Geneva, 4-5 July 2013.

“The future of humanity and of our planet lies in our hands. It lies also in the hands of today’s younger generation who will pass the torch to future generations. We have mapped the road to sustainable development; it will be for all of us to ensure that the journey is successful and its gains irreversible.”

*\*Transforming our world: The 2030 Agenda for Sustainable Development, paragraph 53.*

Increasing voice is an important step in extending the time-horizon of policy but should be backed up by political institutions and should be inclusive by ensuring the participation of all people including women, children and youth. In fact, the 2030 Agenda for Sustainable Development emphasizes that and young women and men are critical agents of change and that the SDGs is a platform to channel their infinite capacities for activism into the creation of a better world. Nevertheless, in most parts of the world, youth have low rates of participation in the policy decisions that impact their lives. This under-representation of youth is clear in the

Arab world. Only 48 percent of Arab youth participate in elections compared to a global average of 59 percent.<sup>76</sup> In this context, the following proposals have been made for increasing the representation of youth interests in the political process:

- Lowering the voting age: In most countries, the voting age is 18 years. In a few, however, citizens have the right to vote at earlier ages – 16 and 17 – in Austria, Cuba, Nicaragua and Indonesia. There is some evidence to suggest that a cohort who obtain their voting right at age 16 will have a higher poll turnout throughout their whole lives, as compared to a cohort who are not allowed to cast their vote until a later age.<sup>77</sup>
- Incentivizing youth voting: Compulsory suffrage (voting) is controversial because many see it as contrary to the principles of liberal democracy. Alternatively measures can be taken to increase the electoral turnout by making voting easier, for example through e-voting. Another option is to provide financial incentives Tozer (2016) proposes to pay young people 30 pounds if they attend an hour-long information session on the election, an hour-long discussion session and then vote. This approach, he argues, is more likely to lead to a reasoned and well-considered vote than a mandate, while protecting individual liberty.<sup>78</sup>
- A youth quota: Many countries in the region, as well as in the world at large, set aside parliamentary quotas for religious and ethnic groups as well as for women. In a similar manner, a quota for youth, such as the one allocated in Egypt and Morocco would increase their political representation and voting participation. On the international level, several countries have introduced youth quotas for parliament. Kenya’s 2010 constitution reserves two seats for people aged 18 to 35 in the upper house, one man and one woman. Rwanda’s 2003 constitution reserves two seats in the lower house for citizens under 35. In other countries, political parties put in place policies for their own candidates. The Cypriot Movement for Social Democracy has a 20 percent quota for those under 35 and the Swedish Social Democratic Party has a 25 percent quota for those under 25.<sup>79</sup>

<sup>76</sup> Data derived from the Arab Democracy Barometer surveys administered in nine Arab Countries. Cited in Mercy Corp 2012. Civic Engagement of Youth in the Middle East and North Africa: An Analysis of Key Drivers and Outcomes. (Available at [www.mercycorps.org/sites/default/files/mena\\_youth\\_civic\\_engagement\\_study\\_-\\_final.pdf](http://www.mercycorps.org/sites/default/files/mena_youth_civic_engagement_study_-_final.pdf))

<sup>77</sup> Mason, Anthony, Hans-Ulrich Kramer, Jorg Tremmel and Markus Rutsche (2016) Editorial, Intergenerational Justice Review. Issue 1/2016.

<sup>78</sup> Tozer, Thomas. 2016. Increasing Electoral Turnout Among the Youth: Compulsory Voting or Financial Incentives? Intergenerational Justice Review Issue 1/2016.

<sup>79</sup> Inter-Parliamentary Union (2014).

- Child proxy votes: In a recent paper on intergenerational justice, Vanhuysee (2013) outlines a proposal by which parents would serve as proxies until children are of voting age. This concept has also been discussed by political theorists (e.g. Philippe Van Parijs and Karl Hinrichs) and demographers (e.g. Paul Demery).<sup>80</sup> The idea is that parents care about their children's future and are therefore better political proxies for their children than is the population at large. It is suggested that these votes could be made conditional on parents meeting minimum standards such as sending their children to school, to signal their concern for their children's well-being.
  
- 2. **Harnessing the power of research and development and the role of the private sector**: Long-term scientific research and development form part of an intergenerational strategy that is necessary to develop for example substitutes for some natural resources, to extract and use resources more efficiently and to understand and manage long-term threats to environmental quality. The role of the private sector in this context is paramount particularly when it operates within the model of corporate social responsibility. The participation of the private sector can achieve intergenerational justice including through the promotion of public-private partnerships, supporting regulatory and policy frameworks that enable business and industry to advance sustainable development initiatives and engaging in responsible business practices such as those promoted by the United Nations Global Compact.

**“The earth provides enough to satisfy every man's need, but not every man's greed” –  
Mahatma Ghandi**

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<sup>80</sup> Demery (1986), Demery (2012), Hinrichs (2002) and Van Parijs (2011).

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