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THE GREEN MOROCCO PLAN:
A CASE STUDY OF THE UNINTENDED CONSEQUENCES OF SUSTAINABLE
DEVELOPMENT INITIATIVES

by

SOFIYA ASEDREM
B.A. George Washington University, 2018

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts in Political Science
in the School of Politics, Security, and International Affairs
in the College of Sciences
at the University of Central Florida
Orlando, Florida

Spring Term
2021

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ABSTRACT

Morocco is often regarded as a regional leader in addressing climate change. This may not come as a surprise given recent reports that also show that it is particularly vulnerable to adverse effects of climate change, including extreme water shortages. Therefore, what has the state been doing in response to this crisis, and even more, how have state initiatives impacted the country's most vulnerable populations and the environment? This thesis focuses on the Green Morocco Plan (GMP), an agricultural strategy launched in 2008 that intended to address environmental concerns while also increasing modern agricultural productivity and improving the conditions of small farmers. Specifically, the thesis seeks to address the question: What have been the goals of the plan as well as the socioeconomic impacts on the country's most vulnerable populations? A historical political economy approach is utilized, paying particular attention to agricultural policy from the colonial period, the *makhzen* system, and EU-Morocco trade relations. The analysis is conducted based on official discourse, existent literature on impacts of the GMP, and news articles that have tracked its implementation. In essence, this thesis argues that the GMP is an example of how Morocco is engaged in a relationship of ecologically unequal exchange with countries of the EU, that has benefitted both EU members and Moroccan elite, at the expense of the environment, and vulnerable populations in Morocco, especially small farmers, and women.

For the ordinary Moroccan – especially those in rural areas, facing many of the struggles mentioned in this work, and persevering through it all in hopes of a better future for generations to come.

ACKNOWLEDGMENTS

Thank you to the individuals who have supported me along my graduate journey and more specifically, supported me in completing this work. First, I would like to extend my sincere gratitude to my thesis chair, Dr. Peter Jacques, for his mentorship and advice on this thesis and more broadly throughout my master's degree program. His willingness to always be available and offer his expertise and feedback have helped me to grow in so many ways throughout this program and as such I have learned from him inside and outside of the classroom. To Dr. Tezcur and Dr. Mousseau, who offered their support and valuable feedback through serving on my thesis committee.

To my Mother Erin Cunningham for her endless love, and encouragement along the way. All that I have achieved thus far I owe to her and in acknowledgement of her hard work, humbleness, and grace in raising myself and my other three siblings. To my father Said Asedrem who sparked in me my interest in the motherland, who modeled the virtue of being in solidarity with victims of poverty and injustice, and who is always open to discussing Moroccan politics with me and offering his perspective on all my research related to Morocco. To my Husband Zakaria Elahmadi, whom I look up to and who has always shown his support, as well as offered his perspective and feedback on both the subject matter and my graduate pursuits more broadly. To my son Amine, who throughout stressful periods in my graduate journey, showered me in love and kisses to keep me motivated. To my sister Anna Jamila Hassan who I could always count on to read drafts and provide feedback. To my dear Aunt, MaryAnn Cunningham who has always supported and inspired me throughout my educational journey. And last but certainly not least, my loving grandmother Khaddouj who in my early childhood years taught me the

Moroccan dialect, Darija, which I credit to enabling me to understand some of the complexities of Moroccan politics and society today.

All praise and thanks is due to God - who has enabled me to pursue my graduate studies and reach this point in my educational journey.

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LIST OF ACRONYMS

ABS	Access to Benefit Sharing
ADA	Agence pour le Développement Agricole/ Agency for Agricultural Development
AfDB	African Development Bank
CSA	Community-supported agriculture
EACCE	Exports Control and Coordination Agency
EMS	Environmental Management System
ENP	European Neighborhood Policy
EU	European Union
EUMFTA	European Morocco Free Trade Agreement or Area
EUROMED	European-Mediterranean Partnership
FDI	Foreign Direct Investment
FNSA	National Federation of the Agricultural Sector/ Fédération Nationale du Secteur Agricole
GM	Genetically modified
GMP	Green Morocco Plan
IFC	International Finance Corporation
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
MAD	Moroccan Dirham
MAPMDREF	Ministère de l'Agriculture, de la Pêche Maritime, du Développement Rural et des Eaux et Forêts/ Ministry of Agriculture, Maritime Fisheries, Rural Development and Waters and Forests
MENA	Middle East and North Africa
MWN	Morocco World News
ONSSA	Office National de Sécurité Sanitaire des produits Alimentaires/ The National Office for Health Security of Food Products
PMV	Plan Maroc Vert/ Green Morocco Plan
PNEEI	National Program for Water Savings in Irrigation/ le Programme National d'Economie d'Eau en Irrigation
SAM	Social accounting matrix
SAP	Structural Adjustment Program
SIAM	International Agricultural Exhibition in Morocco/ Salon International de l'Agriculture au Maroc
SSA	Sub-Saharan Africa
UAA	Usable agricultural area
UEE	Unequal Ecological Exchange
UN	United Nations
UNGA	United Nations General Assembly
WB	World Bank

TRANSLATION OF NON-ENGLISH CONCEPTS

Throughout this thesis, some French (“F.”) and Moroccan Arabic (or “D.” *Darija*) concepts are utilized. Non-English words are italicized throughout. These terms are listed and translated below. The translations are based on explanations found in the literature, which is also cited throughout the thesis and listed under the references section.

<i>Agrément</i> (F.)	Administrative authorization
<i>Bilad al makhzen</i> (D.)	Land of the government or that which was under direct authority of the sultan
<i>Bilad as siba</i> (D.)	Land of anarchy, or that which was more remote and less influenced by the Sultan
<i>Darija</i> (D.)	Moroccan dialect of Arabic
<i>Grima</i> (D.)	Administrative license for rent extraction
<i>Guich</i> (D.) <i>makhzen</i>	Lands that belonged to the military and were distributed by the
<i>Habous</i> (D.)	Refers to lands that were in the hand of religious institutions, typically used for mosques or schools
<i>L’agriculture solidaire</i> (F.)	Solidarity agriculture, or that which is based on solidarity instead of competition
<i>Makhzen/Makhzenian</i> (D.)	Literally “storehouse” though relating to Morocco’s political establishment, which includes the traditional system of patronage between the monarch and its elite support structure
<i>Maroc inutile</i> (F.)	Useless Morocco, also refers to areas of the country that are less fertile or less beneficial to the French colonial administration
<i>Maroc utile</i> (F.)	Useful Morocco, also refers to the areas that are fertile and could be exploited by the French colonial administration
<i>Melk</i> (D.)	Refers to lands that were privately owned
<i>Parachutage</i> (F.)	Literally “parachuting” also refers to instances of landing a position due to connections, corruption, or as a political benefit

CHAPTER ONE: INTRODUCTION

Morocco is often hailed as a leader on many fronts in the Middle East and North Africa (MENA) region as well as Africa more broadly. Combating environmental issues is one of them. In 2020, it was ranked third in global climate change performance (Burck, J., Marten, F., Bals, C., & Höhne, N., 2020).¹ The country was particularly noted for its investments in public rail transportation and strong legislation in energy efficiency and forestry (Germanwatch, 2021). The country has also demonstrated overall commitment to international climate policy through its engagement in the Paris Agreement. At the same time, according to Yale's Environmental Performance Index, which assesses environmental health and ecosystem vitality of 180 countries, Morocco has a rank of 100, compared to neighboring Algeria and Tunisia who score higher at 84 and 71 respectively (Yale Center for Environmental Law & Policy, 2021).

Between 2008 and 2020, Morocco adopted the Green Morocco Plan (commonly referred to in French as *Plan Maroc Vert*), a green agricultural strategy that seeks to combat climate change while also improving the lives of Moroccans. Additionally, as a part of the country's 2009 solar plan, the country recently built one of the largest concentrated solar power (CSP) plants in the world, the Noor Complex (Rignall, 2016). In 2014, the country launched the Moroccan Green Mosques development program. Since Morocco is a majority Muslim country, mosques play a key role in society and can be found even in the most remote locations. As such, solar panels have been installed on many mosques to promote renewable and efficient energy technology, create jobs, and sensitize the public to environmentally friendly initiatives (The

¹ Technically, it was 6th, though no countries were ranked 1-3 due to no country performing well enough to be placed in a "very high" rating on the index. See: https://www.climate-change-performance-index.org/sites/default/files/documents/ccpi-2020-results-the_climate_change_performance_index.pdf (p.8).

German Agency for International Cooperation, 2021). Further, in 2016, the country launched the Zero Mika (zero plastic) campaign, which bans the use and production of plastic bags (Ennaji, 2019).

The country is also among the world's largest receivers of climate-related aid, mostly consisting of loans (Morocco World News, 2014). Much of this aid supports the previously mentioned initiatives. This may not come as a surprise given recent reports that also show that Morocco is particularly vulnerable to climate change. The country is expected to face many adverse effects in the near future including extreme water shortages (Tekken & Jropp, 2012; Schilling, Freier, Hertig, & Scheffran, 2012; Institute for Economics and Peace, 2020). These effects have already been felt, with the region experiencing consecutive droughts over the last few decades.

What has the state been doing in response to this crisis, and further, how have state initiatives impacted the country's most vulnerable populations and the environment? Environmental policy at its core is about how states regulate people's relationships to the environment. Agricultural policy is a part of environmental policy that focuses on a range of activities related to farms, land ownership, natural resource production and trade. This thesis focuses on the Green Morocco Plan (GMP), a two-pillared agricultural strategy (see figure 1) that guided the country's initiatives between 2008 and 2020. The first pillar addressed the intent to increase modern agricultural productivity, while the second pillar addressed the intent to improve the conditions of small farmers. Both pillars were supposed to also address environmental concerns. For example, government subsidies were allocated for the purchase of irrigation systems that in theory would more efficiently water crops, thus increasing productivity. This was expected to help small farmers boost their incomes.

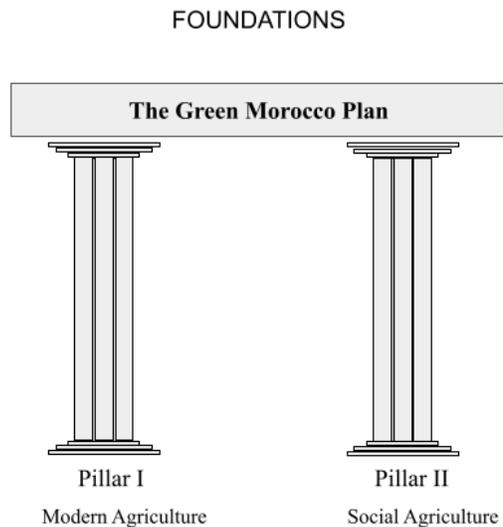


Figure 1. Foundations of the GMP including pillar I and pillar II

Specifically, this thesis seeks to address the question: What have been the goals of the plan as well as the socioeconomic impacts on the country's most vulnerable populations? As such, it will look at different initiatives that have been adopted by the country under the GMP and to what extent these programs have addressed underlying ecological threats and the socioeconomic development of the country's poor.

Thesis Outline

The next section of this chapter will focus on the concept of vulnerability and its importance for the research question. Following the conceptualization of vulnerability, a brief introduction to Morocco's agricultural sector is provided. This is followed by a discussion of the framework and methodology applied in this research, including theoretical expectations. The end

of the chapter will contextualize this thesis within broader scholarship on the Green Morocco Plan.

Chapter two will begin with a review of Morocco's historic political economy, including a discussion of impacts on agricultural policy from the colonial period, a discussion of the *makhzen* (the establishment, or patronage system), and recent developments regarding regional relationships and their impact on policy making. These various topics have been previously addressed in the literature as important to this field of study (Davis, 2005; Davis, 2006; Maghraoui, 2001). Chapter three includes the analysis which begins with a discussion regarding official discourse, and statistical data to show achievements of the GMP. The discourse analysis section is followed by an evaluation of the GMPs impact through a survey of the literature and contemporary news accounts, focusing on a multitude of case studies that evaluate impact at different levels including on farmers and women.

Based on the analysis of existing studies and contemporary news accounts, I will examine the roles of various actors and political groups in policy making and implementation and identify important structures that impact the GMP. Specifically, this research seeks to use this information to understand gaps between the official declared goals of the project and consequences or outcomes of its implementation. The analysis comprises reading all of the abovementioned sources, and identifying broader, general themes that emerge. Results of this analysis will be discussed in the final chapter.

Conceptualization

Before looking deeper at Morocco's Agricultural sector, this section will provide a discussion of the concept of vulnerability, in order to narrow the focus of the research question

on a specific group of the Moroccan population. The concept of vulnerability, more broadly, can be seen as encompassing linkages between poverty and risk (Guillaumont, 2009). Whereas poverty regards an unacceptable level of wellbeing, vulnerability is the exposure to uninsured risk that leads to such socially unacceptable levels of wellbeing (p. 5).

Luers (2005) provides a definition that extends beyond exposure, and encompasses susceptibility, sensitivity, and adaptability. Susceptibility is characterized by one or more of the following: 1) sensitivity to or exposure of a system (being people or a place) to shocks, stresses, or disturbances, 2.) the state of a system relative to a threshold of damage, and 3.) a system's ability to adapt to changing conditions (p. 215). Shocks, stresses, and disturbances may refer to a range of phenomena including climate variability, climate change and market fluctuations.

As such, risk can encompass exposure to economic, environmental, gender related, or any other kind of danger or harm. In the context of environmental risk, vulnerability is similar to the definition provided by Luers (2005) and includes three elements: exposure to climate change, sensitivity to climate change, and adaptive capacity (Schilling et al., 2012). In situations where states do not provide enough social or institutional mechanisms to protect vulnerable groups, it becomes more likely that individuals will be liable to further threats to their wellbeing or impoverishment (p. 3). Likewise, in situations where governance was responsible at some point in providing social services, but then withdrew these services, the impact is often hard felt by vulnerable populations. This was the case in Morocco following neoliberal restructuring in the 1980's. Even the smallest amounts of investment in education, healthcare, and other sectors, can make a great difference for those living in poverty. This is also the case in Morocco where many people in rural and remote areas do not have access to education or healthcare. These factors, such as education for example, also impact a person's prospects when it comes to employment

and being able to navigate or access further resources distributed by the state. Education also helps people to network and make connections that can secure further upward mobility.

As such, governance is a key factor in ensuring that vulnerable groups have access to basic services and have the capacity and resources to deal with potential threats. For example, Myers and Patz (2009) point out that governance is a mediating factor that can protect populations from ecosystem change. They note that many famines of the twentieth century were driven primarily by governance failures, not food scarcity (p. 227). In such situations, officials at the international, state, and local levels must step up to ensure that at-risk populations are protected from impacts of environmental or other risks.

Groups identified in this study as vulnerable include: the rural poor, small farmers, and women (See Figure 2). These categories are not mutually exclusive, and it must be noted that intersectionality exists between the groups. Originally coined by Kimberlé Crenshaw, intersectionality refers to the ways that there are relationships “among multiple dimensions and modalities of social relations and subject formations” (McCall 2005, 1771). For example, women who work in natural resource development in cooperatives are also considered to be amongst the rural poor. Further, by nature of being a woman and amongst the rural poor, this likely makes an individual more vulnerable. On the other hand, being female and living in an urban more affluent area makes things better for women since they are more likely to be educated and exposed to other opportunities that do not exist in more rural areas.

The rural poor are also highly impacted by environmental conditions (as shown by the circle of effects in Figure 2., which indicates that impacts of the GMP on vulnerable groups and the environment are connected). Generally, the rural poor are included due to the nature of being particularly tied to the agricultural sector (more on this will be discussed in the next section). As

such, the rural populace is particularly vulnerable to the effects of climate change. As discussed earlier on, those who rely on rain for growing crops are subject to food security issues in years of drought. Small farmers are a part of this group, though they are also included separately due to the added factor of their integration into new competitive markets, through the new agricultural strategy. Many small farmers in Morocco rely on subsistence farming, and therefore are not experienced when it comes to markets (Medouar, 2021). Therefore, it is expected that they would not do well in the market economy. For example, declining water tables makes irrigated agriculture highly risky for small farmers and can quickly lead to farmers having to sell their land, or transition to focusing on livestock activity (Ameur et al. 2017, p. 214). If they sold their livestock to become involved in larger scale irrigated agriculture, this could make them further vulnerable in the groundwater economy (ibid).

Lastly, women are included as vulnerable due to widespread gender disparities (Elliott, 2014). For example, in Morocco, the literacy rate for adult males is 83% as compared to 64% for women (World Bank, 2020). Further, women make up nearly half of workers who labor in Morocco's agricultural fields (Solidarity Center, 2019). In rural areas, 92% of women workers work in agriculture, and 86% do not have an employment contract (European Bank for Reconstruction and Development 2015, p. 51). This means that they are often subject to harsh working conditions, as they must obtain whatever kind of employment available in order to provide for themselves and their families. Women also tend to be involved in unpaid domestic labor which results in what has been referred to as a double burden, through the added stress of a paid job outside of the household, on top of unpaid domestic work.

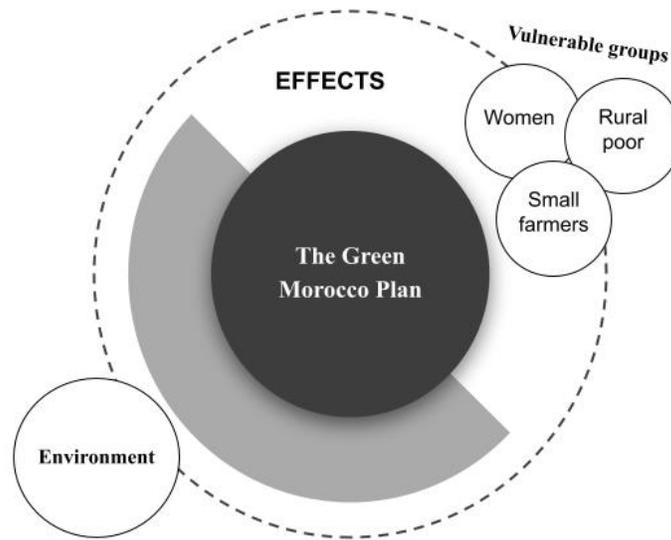


Figure 2. Diagram showing focus areas and actors in analyzing effects of the GMP

Notes: The diagram shows to the right, the two-pillar nature of the GMP, as it focuses on both modern (relating to technology, efficiency, etc.) and social agriculture (relating to small farmers, vulnerable groups, etc). To the left, the diagram shows how this thesis analyzes the effects of the GMP by focusing on vulnerable groups and the environment. Vulnerable groups include small farmers, the rural poor, and women. The vulnerable groups overlap to show intersectionality. The circle of effects indicates that impacts on vulnerable groups and the environment are connected. This is discussed further in chapter three.

It is important to also note here that the GMP specifically designates certain beneficiaries of its plan as vulnerable. For example, beneficiaries of Pillar 2 of the program (which will be discussed further in chapter 3) are supposed to be “poor and/or vulnerable” (Faysee 2015, p. 6). However, a clear definition is not provided regarding exactly what constitutes vulnerability.

Morocco’s Agricultural Sector

Agriculture in Morocco is a key sector. Though it only comprises 19% of the country’s total GDP, it provides just under 40% of national jobs. In rural areas, the agriculture sector

employs around 80% of the population (Ministry of Agriculture, 2015). Additionally, in rural areas, levels of poverty are especially high. Before the start of the GMP, 1 in 10 people in urban areas were said to be living in poverty, whereas in rural areas, that number jumps to one in three (Cherkaoui & Ben Ali 2007, p. 756). Such poor conditions in rural areas have also driven urbanization over the last few decades. For example, 60% of Moroccans live in urban areas today, compared to 35% in 1970 (Lall et al. 2019). By 2050, it is expected that 75% of the population will reside in urban areas (ibid).

Additionally, the sector is critical to ensuring food security for the country's growing population (Ghanem 2015, p. 4). For example, severe drought in 2016 had a significant impact on cereal production throughout the country (Eliason, 2019). Moroccans rely on cereals as a staple food item in the national diet: bread. In addition, barley is used for livestock feed. As a result, the 2016 drought is seen as a potential cause of the increase in food insecurity in Morocco in 2017. Whereas in the period of 2014-16 5.1% of Moroccans were affected by severe food insecurity, that amount increased to 5.7% in 2015/2017 (FAO, 2019). Further, as cereal crops are impacted negatively by shifts in rainfall, the country imports more cereals to meet national consumption demand, which also are priced higher and subsidized by the state (Kasraoui, 2020).

While cereals (including common wheat, durum wheat, and barley) make up 65% of usable agricultural area (UAA), a variety of other agricultural products are also significant in the country including fruits and vegetables (Ministry of Agriculture 2015, p. 36). Some of the country's other top agricultural products include citrus, olives, tomatoes, roses (for perfume production), saffron, dates and argan. Of critical importance, 81% of cultivable land in the country is rain fed (38). Therefore, the sector is highly sensitive to climatic conditions (Karrou &

Oweis, 2014). During times of drought, which have become more prevalent due to climate change, crops are affected negatively, and so too is the economy.

Due to the sector's national importance, agriculture has been referred to as the country's "natural development engine" and an important pillar to the country's economy (Kingdom of Morocco 2015, p.11). Within this context, the GMP was launched in 2008 with a dual strategy of increasing modern agricultural productivity while also improving the conditions of small farmers through a multitude of initiatives. An article from the World Bank, a major funder of the program, summarized the aims of the project as "to protect the environment as well as livelihoods of Moroccans" (World Bank, 2016). As such, the plan has been promoted as both a small-farmer and environment friendly rural development project.

Framework and Methodology

This thesis draws on a distinction provided by Stake (1994) regarding intrinsic, instrumental, and collective case studies. The type of study applicable for this case is the intrinsic case study, whereby the researcher's primary goal is looking for better understanding of a particular case and theory building is only a secondary goal (Stake 1994, p. 237). I draw on Glaser and Strauss' (p. 1967) insights regarding the inductive approach whereby "to make theoretical sense of so much diversity in his [or her] data, the analyst is forced to develop ideas on a level of generality higher in conceptual abstraction than the qualitative material being analyzed" (p. 114). Subsequently, the researcher may use abstract concepts to describe uniformities or diversities in the data that address the research question.

Since the focus of the research question is on both the goals and effects of the GMP, the analysis takes a two-pronged approach (See Figure 2.). First, qualitative content discourse

analysis is used to understand the main goals of the GMP. Details regarding this method and the analysis are detailed in chapter three. In addition to analyzing the goals of the plan, this section also provides statistical data from the Moroccan Ministry of Agriculture regarding the plan’s achievements. This statistical data is included to provide a quantitative snapshot of some of the effects of the plan. Secondly, following the discourse analysis there will be a review of the effects of the GMP based on the literature and contemporary news accounts. This review provides a qualitative look at the effects of the plan, also supported with available statistics from the literature. Data sources and additional details regarding the analysis are discussed in more depth below.

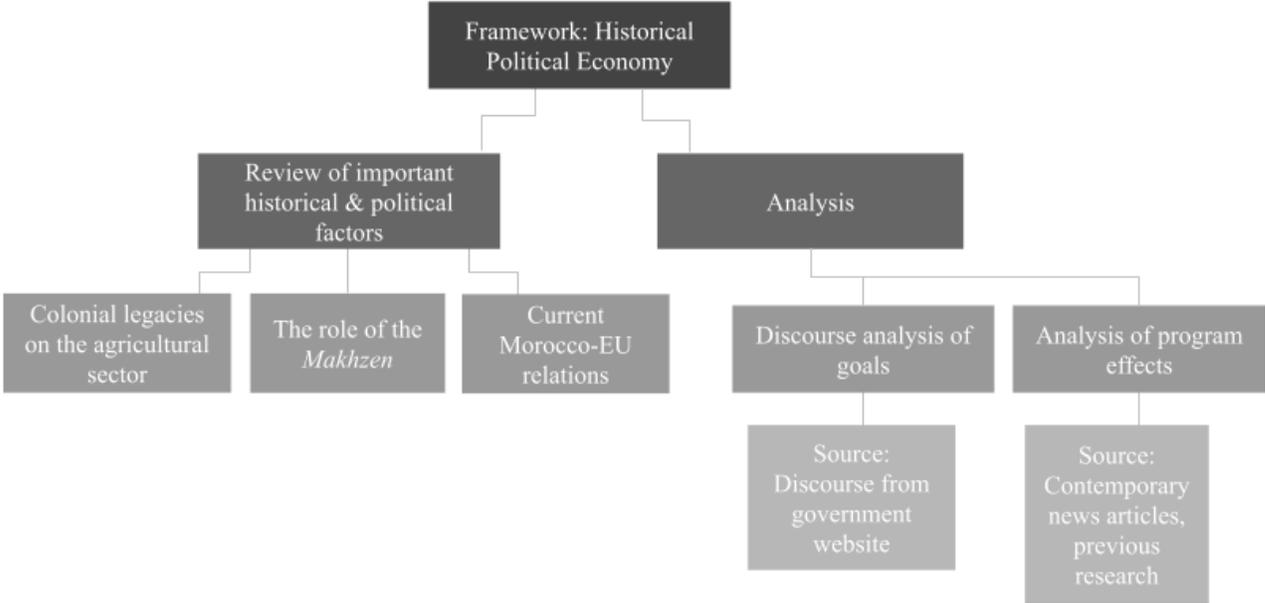


Figure 3. Research Design with a Two-Pronged Analysis Approach

Historical political economy is utilized as the framework of analysis. Through this method, I seek to unearth patterns, as well as identify and isolate structural concerns related to the country’s political economy. This will help to analyze state effectiveness in carrying out the goals set in the GMP as well as environmental implications of the plan’s initiatives. As such, in

conducting the data analysis, particular attention will be paid to “how people control and, periodically, struggle for control over the institutions and organizations that produce and regulate the flows of materials that sustain people” (Rudel, Roberts, and Carmin 2011, p. 222). In the case of Morocco, the state system of the *makhzen* is a particularly important mechanism that guides the flow of materials, distribution of capital, and labor relations. This system helps to explain why the poor and other sectors of society are often further made vulnerable in the context of agricultural modernization. The *makhzen* will be discussed further in chapter two. Another structural concern of great importance regards the agrarian mode of production enforced through the GMP that is inherently capitalistic in nature and export oriented (ATTAC/CADTM Maroc, 2019). This is an important factor in understanding how the state’s investments impact the flow of capital and is influenced by the neoliberal economy. This is discussed in more depth below in the context of other theoretical expectations.

The historical approach is utilized due to the insights and lessons that can be learned from the past that also speak to current challenges (Mahoney & Rueschemeyer 2003, p. 9). In the Moroccan context, lessons are drawn from colonial legacies on agricultural policy and how these legacies continue to impact the way that development projects are implemented into the contemporary period with an export focus. This historical perspective is incorporated based on a review of the literature that addresses the intersection of Moroccan colonial history and agricultural policy. This topic will be further discussed in chapter two.

Some preliminary expectations regard the negative effects of neoliberalism and agricultural modernization, also leading to Unequal Ecological Exchange (UEE). Since the colonial period, Morocco has partaken in many land reform and rural modernization efforts. For example, during the colonial period, there was a shift from focusing on cereals to high-value

exportable and irrigated crops which included vegetables and fruits, especially oranges (Tenzon 2019, p. 51). The transition led to large investments in infrastructure, programs to educate local farmers, and a reorganization in settlement patterns (ibid). In recent times, modernization efforts have similarly dealt with transitioning from subsistence and traditional farming methods to investments in more intensive, commercial models that include drip irrigation systems, greenhouses, the use of patented hybrid seeds, the construction of processing and packaging plants, and the purchasing of other kinds of machinery.

Previous research on economic development in Morocco has documented the negative effects of capitalistic production during the colonial period (Guerin 2016, p. 335) and then neoliberal efforts through structural adjustment programs (SAPs) adopted through the WB and IMF in the 1980's (this point is also discussed in chapter three). For example, these effects were seen through the 1984 Uprising, a series of bread riots due to rising food prices. With neoliberalism, the emphasis on reducing state support and responsibility, leads to a shift in power to non-state and private actors. This results in a cutting back of state welfare and more 'self-development' approaches that include capitalist philanthropy (Morvaridi 2012, p. 1195) and integrating the poor into competitive markets. These "pro-poor" strategies seek to transition what has largely been subsidized into something that can be profitable (p. 1199). The capitalist class can then maintain control of markets, workers, and peasants (p. 1193), and at the same time are responsible for the development of the most vulnerable (p. 1193). The challenge then is that these groups are driven primarily by profit, and at the same time are unregulated and unaccountable (p. 1208). This oftentimes results in the capitalist class exploiting workers, especially when national legislation, via labor laws for example, does not prevent them from doing so.

One such example is the Green Revolution and genetically modified (GM) technology that has been introduced as a strategy to combat poverty and ensure food security in sub-Saharan Africa (SSA). Monsanto is a well-known corporation that has monopolized the market with their patented seeds and reaped the benefits of the industry. Though Morocco has more stringent regulations on the import of genetically engineered technologies, the country has been a consumer of Monsanto fertilizers (USDA, 2020). The Green Revolution initiative has been controlled by a few wealthy individuals, does not provide agency to small farmers, and as such cannot lead to sustainable development that addresses inequality (Morvaridi 2012, p. 1208). In other words, such solutions do not address underlying and root causes of poverty, such as how it is created and reproduced (p. 1199). In the case of Morocco, a good portion of the GMP is state funded and subsidized, though the plan also seeks to incorporate private partnerships, and to integrate the poor into agricultural markets. These markets are currently dominated by the wealthy and well-connected elite class, who are oftentimes members of the *makhzen*.

In conducting the analysis, another significant area of focus includes environmental impacts stemming from flows of material and especially “how regulatory bodies try to shape efforts to amass wealth without threatening vital environmental services” (Rudel, Roberts, and Carmin 2011, p. 222). Emphasis on environmental impacts will help highlight different power structures within the country that frame environmental politics (and perhaps politics more broadly), and that have repercussions for society as a whole. Due to neoliberalism, it is also expected that there would be an increase in unequal exchange, because of the retreat of the state from markets, and the GMP simultaneously encouraging more private investment into the agricultural sector. This leaves private actors free to pursue strategies favorable to them, even in situations that are detrimental to local ecosystems. This unequal exchange includes labor as well

as the environment and is expected to occur between powerful elite actors and less powerful agricultural workers. At the environmental scale, it occurs when more powerful actors, who do not have a connection to local lands, exploit local water tables and the soil, to increase production and hence profit. Locals who may have sold portions of their land for a cheap price to new entrepreneurs, are cheated because they now must deal with depleted aquifers and poor soil conditions. At the same time, local agricultural workers also experience unequal exchange because their wages are low, working conditions are not ideal, and local resources are being used up, while large profits accrue to the private entities in charge.

The concept of unequal ecological exchange (UEE) is specifically concerned with ecosystems. UEE stems from the Marxist notion of metabolic rift, a system of affairs that exists in capitalist society whereby humans violate the basic conditions of sustainability through depleting land, resources, and soil to industrialize (Foster, 1999). The city or town is responsible for the ecological destruction that is being conducted in an external environment, the country (p. 383). In essence, there is an unequal exchange of energy between the two spaces that results in a breakdown in the ecological sphere. During Marx's time, this played out as under capitalism, large scale industry was able to scale up due to large scale agriculture which resulted in exploitation of the soil. Soil in rural areas became so exhausted that the English then had to import guano from Peru to fertilize the soil and make it nutrient rich again to continue growing more crops (Foster 1999, p. 380). The "rift" that takes place then is between humans and their natural environment, due to the depletion of resources at a rate that is counter to natural processes (p. 383). Marx also discussed how this was occurring at a global level, whereby colonizing countries had been depleting the resources of colonies (p. 384).

Similarly, in unequal ecological exchange relations, this theory is extended to relations between core and periphery countries in the capitalist world economy (Foster & Holleman 2014, p. 200). Bunker (1985) also refers to this ecological model as a context of uneven development and underdevelopment (p. 239). Such situations, he argues, are the consequence of three factors: (1) the physically necessary relations between extraction and production, (2) the resulting imbalance of energy flows between regional ecosystems, and (3) the differential incorporation of energy in different regional, social, and economic formations (p. 239). These factors of uneven development are relevant in Morocco, which is discussed further later in this section.

In the context of these kinds of relations, ecological disadvantages are imposed on periphery or developing countries, to the benefit of the more developed and wealthy countries. In Morocco, and in the context of agriculture centered development projects like the GMP, this relationship may also play out between the country and its number one export partner, countries of the European Union (EU). This will be the case if there is an imbalance of energy flow due to trade occurring between Morocco and EU countries that results in adverse effects to the environment in Morocco. Energy flow includes matter that is necessary for the reproduction of life and natural resources including water and soil for example. Therefore, an imbalance of energy flow would result in ecological disruptions such as the depletion of water sources in Morocco. As discussed earlier, these unequal relations also effect labor sectors, who are like ecological systems, exploited to serve dominant markets. The GMP would play a role in these unequal relationships by subsidizing agricultural techniques that are harmful to the environment or leasing land to private actors that are not using environmentally sustainable and responsible practices. Also, the government may encourage these unequal relations through financially

supporting rural development projects (ex. cooperatives) that do not sufficiently compensate labor or agricultural workers.

UEE has a historical precedent in the country. During the colonial period, such uneven development relationships could be observed due to the French Resident-General Hubert Lyautey's division of areas of the country into different regions referred to as either *Maroc utile* or *Maroc inutile*. The former translating to useful Morocco, and the latter, useless Morocco (Tenzon p. 46). *Maroc utile* included fertile agricultural lands as well as mining sites that could be exploited, whereas the latter category referred to areas of lesser importance to the French. In this sense, the unequal exchange existed at two levels: between the two regions in Morocco, but also at the country level. Rural fertile areas were exploited to the benefit of settlers located in the cities, but also, benefits accrued in the colonizing home country of France.

As such, the effects of hegemony should be noted. In the colonial context, the foreign capitalist class exploit lands in the name of the Protectorate. In the modern context, the local capitalist class are able to control markets, labor, and politics, in the name of philanthropy or simply business (p. 1193). States and powerful actors ignore unequal dispersions of power, that leave groups such as small rural agriculturalists and women particularly vulnerable, while corporations and the elite continue to profit. This is because these organizations prioritize profit-making, and at the same time, governments are lifted from the responsibility and costly budget that such work entails. The status quo is maintained because it benefits the most powerful actors involved, which is also the case in Morocco with the *makhzen*. Further, given the legacies of Morocco's colonial history, and neo-colonial relationships between the *makhzen* and the EU, the EU is also able to profit from the situation. This will be discussed further in chapter two.

Data

The analysis for this research draws on both primary and secondary sources. The primary sources include official electronic publications, from the Kingdom's main and agency webpages. In addition to the review of official discourse from the Kingdom's Morocco Green Plan, information will be obtained from the website of the Agricultural Development Agency (ADA, or Agence Pour Le Développement Agricole). Another primary source that will be used is the Morocco Foodex website, which is the country's official export promotion page, and which is under the supervision of the Ministry of Agriculture, Fisheries, Rural Development, Water and Forests (or Ministère de l'Agriculture, de la Pêche Maritime, du Développement Rural et des Eaux et Forêts, MAPMDREF). These sources were selected due to their relevance and narrowed as a result of being the only available official sources published by the Kingdom that include content in English.

Additionally, news articles from Morocco World News (MWN) are utilized as primary sources. MWN is the only English news source available that is primarily concerned with Moroccan news. The founders of the electronic news source have been outspoken about defending national interests (Maroc Press, 2015). At the same time, according to the agency, MWN "does not sweep controversial subjects under the carpet or censor controversial opinions, as long as writing meets acceptable journalistic standards" (MWN, 2021). The agency indeed has a history of also publishing articles critical of the Kingdom, state officials, and state policies.

MWN reports on news that has been published in other popular independent Arabic Moroccan news outlets such as Hesspress and includes information from English sources including international reports on issues such as climate change, or reports from other

international agencies and foreign national news sources. In addition, MWN reports on recent actions taken by the government by summarizing official press releases (that are originally in Arabic/French). Articles will be searched using the keywords: Green Morocco Plan *and Plan Maroc Vert*. All articles that were published since the inception of the program (2008) to the present (2021) will be utilized in the analysis. In summary, MWN articles will help provide insight about updates related to program implementation and broader related events.

Contribution

The literature has thus far addressed earlier rural modernization efforts during the colonial period as well as outcomes of neoliberal restructuring in the 1980's. Further, research has looked at singular projects implemented with funding from the GMP, and the outcomes of these projects. However, there is a gap in addressing broadly the effects of the GMP on vulnerable groups such as small farmers, who have been outlined in the goals of the GMP as intended beneficiaries of the plan. This issue will be the primary focus of this research by analyzing the findings of multiple studies in conjunction with contemporary news sources that have reported on effects of the recent agricultural strategy. Findings of this thesis are limited to Morocco. However, some of the themes identified, such as the negative effects of agricultural modernization and capitalistic production on the environment and labor sectors, may be relevant to similar rural development initiatives in other developing countries.

CHAPTER TWO: A REVIEW OF IMPORTANT HISTORICAL AND POLITICAL FACTORS

This section will provide contextual background regarding important historic, political, and economic factors that are relevant for understanding contemporary agricultural policy in Morocco. As such, it will include a discussion of colonial legacies impacting agricultural policy, the *makhzen* system, and recent developments regarding regional relationships and their impact on national policy making. This section is in no way an exhaustive historical account of the country or its political system, but rather, it draws on the literature to highlight relevant themes for this thesis.

Early Moroccan Dynasties & Colonial Declensionist Narratives

The history of Moroccan politics is characterized by a series of dynasties ruling from shifting capitals over the centuries. Power has traditionally been centralized in capital cities, where the ruler, known as the Sultan, exerted his rule. Those living in mountainous and remote areas, often nomads or the indigenous Amazigh tribes, had spiritual ties of allegiance to the Sultan, though they were not as influenced by state power (Sater, 2010). Regions throughout Morocco were referred to as either *bilad al makhzen* (land of the government) or *bilad as siba* (land of anarchy) (Guerin 2016, p. 345). Tribes in *bilad as siba* were armed with rifles and sometimes disputes between groups broke-out into intense conflict (p. 19).

When French colonization began in 1912, this social dichotomy of space was transformed as colonial authorities sought greater control over rural areas. The Spanish protectorate in Morocco was established around the same time, though Spanish influence was limited to a strip of the northern coast of the country as well as some territory near the western

Sahara region. French influence was more far reaching, as their goal was in part to control the land in order to increase production and supply of resources, especially cereals and produce, that could be consumed back in French cities. Prior to the protectorate period, agricultural lands were typically managed collectively through associations and following local custom (Guerin 2016, p. 27). Generally, agro-pastoral society was driven by egalitarian ideals (p. 31). Land tenure relations included four kinds of land: collective lands used by tribal groups for cultivation and grazing; *Guich* Lands that belonged to the military but were given out by the *Makhzen* to tribes; *Habous* lands which were in the hands of religious institutions and were used to build mosques and schools; and *Melk* lands which were individually owned (Bossenbroek, 2016). Local custom made it very difficult to sell land (p. 27). However, during the protectorate period, the colonial administration implemented reforms that commodified and privatized millions of hectares of land which had previously been inalienable, communal, or shared-use land (Guerin 2016, p. 349). This would help foreigners in the acquisition of Moroccan land. Moroccan farmers and pastoralists were effectively further embedded into the cash economy (ibid).

An additional way that the French increased authority over the land and agricultural sector more broadly was through the control of the forestry department as well as the livestock and range management departments. Especially influential in this process were environmental declensionist narratives, or historical accounts of ecological decline. In Morocco, these colonial declensionist narratives described indigenous people as responsible for environmental decline. They argued that overgrazing, slash and burn farming, and overall native customs are what lead to current wastelands that had once been productive land (Guerin 2016, p. 341). These historical narratives were amplified and institutionalized by the colonial administration (Davis, 2005). For example, one account recalls a surveyor from the Bureau of Livestock Regulation stating that

certain parts of land should not be “wasted” on local farmers since it has been “continuously invaded by parasitic plants...and the Arabs experience great difficulty in exploiting virgin soils... because of... their outdated plows” (Guerin 2016, p. 348). Such narratives were further legitimized as French management under the forestry department produced vegetation maps and ecological data that became seen as scientific facts and that were to guide environmental policy. These reports supported narratives about indigenous people degrading and deforesting the land which in turn legitimized the need for French authorities to take control, and hence adopt policies favorable to them. These policies included the appropriation of forests, expropriation of agricultural and pastoral land, and the control of nomadic populations (Davis 2005, p. 214). As a result of the shift in land tenure and more modernized system designed by French administrators, the late 1930’s saw around 20% of the indigenous population either starving or lacking enough resources for subsistence (Guerin 2016, p. 335). This transformation of land and institutions by the French has been referred to as “disaster ecology” by Guerin (2016) due to its negative effects on the rural lives of the indigenous population.

The Post-Independence Period

It is important to note that recent paleoecological studies undermine the extent of environmental degradation propagated by colonial declensionist narratives (Lamb et al., 1991; Davis 2005). Some literature has discussed how to the contrary, current environmental decline can be linked to colonial overuse. By these accounts, land use practices are seen as drivers of land degradation (Del Barrio et al. 2016, p. 2), whereas pre-colonial systems, though also having some negative effects on local ecosystems, managed to ensure “balance for the stability of the whole landscape” (p. 4). At the same time, many French projects turned out to be a disaster. For

example, reforestation projects included imported trees that could not survive the local conditions. Those that did survive did so due to the introduction of chemical pesticides (p. 352). Even though colonial narratives and policies were often flawed, French articles, reports, and maps from the protectorate period are still referenced today as authoritative sources to inform environmental law and policymaking (Davis, 2005).

Following the colonial period, under the rule of Morocco's King Hassan II (from 1961-1999), the country underwent further agricultural development and land reform. Much of the land that was previously held by settlers and the French colonial administration was turned over to the state and Moroccan nationals, especially members of the *makhzen*. State land was used for cooperatives that were worked by peasants in order to contribute to the country's agricultural development. Further, development was again export-oriented, and a continuation of policy initiated during the protectorate period.

For instance, Hassan II continued to implement irrigation expansion projects that were initially started and planned by the French (Swearingen, 1987). In addition, Morocco's adoption of neoliberal policies, including the introduction of loans and adjustment programs from the IMF and the WB in the 1980's, placed an emphasis on rural agricultural development through the privatization of land as well as intensification of production (Davis 2006, p. 90). Guerin (2016) has referred to this restructuring as a "product of colonial capitalism" due to its reflection and similarity to much of the policy enacted during the protectorate period that resulted in many human costs (p. 340). King Hassan II received many benefits from these policies through his own share of profit from state enterprises (p. 92). He further shared the benefits of resource industries (such as the phosphate industry) with those who were loyal to his regime.

The Makhzen

The late King Hassan's distribution of benefits through patronage captures an important characterizing system of Moroccan politics that extends to the present. The power structure at play is called the *makhzen*. In Moroccan Arabic, the word translates to "storehouse" and refers to the area of the palace where goods are stored and that are offered to the sultan's representatives as benefits for their service or loyalty (Maghraoui 2001, p. 17). In modern day, it refers to the establishment. Some of its actors are known, though their actions and decision making often takes place outside of official democratic institutions (Middle East Monitor, 2017). It is a system of rule that includes the King and his inner circle, whom he rewards with goods and benefits in exchange for continued loyalty to the regime. In essence, it is a system of co-optation that remains intact through various tactics that include corruption, repression, and cooperation (Maghraoui 2001, p. 218). Kausch (2009) has referred to the *makhzen* as an "informal shadow governance structure" that "dictate[s] the main lines of policy and act[s] as a gatekeeper for any kind of political reform" (p. 168).

Those who are part of the families close to the establishment are referred to as *makhzen* families (Chtatou, 2019). Further, people in high positions in the country are said to have made it to where they are due to a practice referred to as "*parachutage*" (in French) or parachuting (ibid). This means that they have landed a well-paid or prestigious position due one of three reasons: 1) they belong to a *makhzen* family, 2) they reached their position through corruption, or 3) they received the position as a reward from the establishment (or *makhzen*) (ibid).

In addition to the palace, and *makhzen* families, the Ministry of Interior is another important political institution that the *makhzen* has been organized around. This is due to the Ministry's historically tightly knit networks with the elite in rural areas, and also its role as "the

main pillar of the authoritarian regime” that has sought to maintain the highly centralized structure of rule to maintain stability and the political status quo (Rousseau, Boyet, & Harroud, 2020, p. 4).

One arena where the Ministry of the Interior has played a dominant role in Morocco is food policy. This has happened through its role as a regulator and controller of prices and quality of products, as well as its expertise when it comes to monitoring supply, and coordinating actors in the supply chain (Rousseau, Boyet, & Harroud, 2020, p. 7). Other political institutions are also involved in food security policy, including the Ministry of Agriculture, The National Food Health Safety Product Office (ONSSA), the Exports Control and Coordination Agency (EACCE), and the Agricultural Development Agency (ADA). However, the Ministry of the Interior is the main actor with the financial resources as well as decision making power, especially when it comes to providing certain needed licenses within the industry.

Aside from food policy, the *makhzen*'s influence is also displayed in other agriculture related policy arenas. For example, when it comes to land tenure, policy tends to favor large landowners (Cherkaoui & Ben Ali 2007, p. 757). Small landowners tend to be unorganized and are therefore unable to defend their interests, whereas large landowners are more organized and more likely to collaborate for the purpose of pressuring the government into serving their interests. This explains tax amnesty as well as increased subsidies for the sector. Additionally, policies that favor large landowners such as irrigated agriculture have gained more attention by the government, as opposed to dry agriculture which is more typical for small farmers (p. 757).

Lastly, it is common knowledge in the country that anyone in Morocco interested in gaining access to resources or important national revenues must first hold a license that is distributed by the state (Cherkaoui & Ben Ali 2007, p. 755). This license is referred to in

Morocco as *grima* and comes from the French word *agrément*, which means an administrative authorization. Some examples of resources regulated by these licenses include fisheries, mineral resources, sand extraction, and commercial forest harvesting. Being a part of the *makhzen* has traditionally been an important avenue for gaining access to a *grima*. Though generally, one needs to have either financial resources or connections in order to secure these licenses. For example, it has been noted that licenses for commercial harvesting are typically granted to “wealthy urban dwellers” because they are “best able to make ... payments for the license and are best positioned to access markets and obtain the highest prices” (USAID, 2011).

As such, both the *makhzenian* and *grima* systems point to systematic inequality that favors elite members of society and provides roadblocks to development for poor and vulnerable groups in the county. This system is detrimental to the country due to the ways that it “block[s] the advance of democracy, meritocracy, and accountability” (Chtatou, 2019). Electoral politics have thus far not been able to change the way this system of patrimonialism plays out. High levels of voter abstention, the fragmented multiparty system, and challenges with building coalition governments, have rendered the political process inefficient, leaving the King with the most control over the direction of the country. Further, national initiatives like the GMP are introduced by the King and highly centralized in their implementation. The cabinet member with the most direct control over the GMP, agricultural minister Aziz Akhannouch, is himself a member of the National Rally of Independents Party, a royalist party that often cooperates with other parties close to the Palace. Not to mention he is also a member of the *makhzen* and the twelfth richest man in Africa (Forbes, 2021).

Contemporary EU-Morocco Relations

Colonial legacies and the *makhzenian* system relate to a more contemporary and important regional influence in Moroccan policy-making: the European Union. Since 2000, the EU and Morocco have been involved in many commercial and political agreements, including a Free Trade agreement (EUMFTA). This agreement has been further developed in 2012 through an additional agreement on trade in agricultural, agro-food and fisheries products (European Commission, 2021). Morocco is also a partner of the Euro-Mediterranean Partnership (EUROMED), an initiative of the European Neighborhood Policy (ENP). Due to its involvement in this partnership, Morocco receives many privileges within this framework including financial assistance. At the same time, it has been noted that since the EUMFTA framework was adopted, Morocco has seen a surging trade deficit with the EU as well as suboptimal economic performance (Berahab & Dadush 2020, p.7). Nonetheless, as a result of the partnership, Morocco has become the largest recipient of EU aid in the Mediterranean (Kausch 2009, p. 166). Morocco is also the EU's largest trading partner. Spain makes up 24.1% of trade, whereas France makes up 21.6%, Italy 4.7%, and Germany 3.2% (Société Générale, 2021). In 2019, it was reported that the EU purchased about 60% of the country's agricultural exports (Oxford Business Group, 2021).

The relationship between the EU and the *makhzen* is tied to their united interests, including economic ones (Kausch 2009, p. 176). EU countries are said to benefit from special privileges in Morocco (for example, the successive EU-Morocco Fisheries Agreements which give EU vessels fishing access in Morocco's exclusive economic zone), and in order to maintain them, EU companies have in the past shown prudence in their actions in order to maintain a good status with the *makhzen* (p. 167).

At the same time, though Morocco and the EU have a strong relationship and implement many joint initiatives on this basis, the two partners have different priorities when it comes to policy implementation. For example, one study investigated Morocco's experience with the implementation of an Environmental Management System (EMS) based on European regulation, and that would result in certain certifications for the municipality of Marrakech (Daddi et al., 2011). The authors found that though the local population had a very good perception of the initiative and they supported environmental action in their city, there were many challenges for the city in implementing the project. The study also discussed how part of the drivers and motivations behind the certification had to do with Morocco's intent of creating a positive international image as well as to promote international tourism (p.829). These goals are also in line with the priorities of the *makhzen*, who often rely on Morocco's good public image as a means of attracting more investment into their privately owned businesses. Nicolai (2020) has also discussed how in addition, the Moroccan regime has been using its "green soft power" to "further regional integration and .. strengthen regional influence" (p. 19). In other words, Nikolai posits that Morocco's involvement in environmentally sustainable cooperation projects, especially in Western and Sub-Saharan Africa, has been a strategic move to gain African countries support in other policy arenas (a point discussed further in part B of chapter three).

Similarly, another study that looked at Morocco's implementation of environmental dimensions of the ENP found that Morocco lacks institutional capacities to implement environmental policy, and overall, Morocco was perceived as not giving much importance or showing political will in implementing environmental action plans (Buzogany & Costa 2009, p. 535). Further, the authors point out that performance in Morocco in adopting international rules has been "weak" and in adopting EU rules has been "irrelevant" (p. 544). Therefore, it is evident

that environmental issues may not always be at the top of the list when it comes to priorities of public officials.

In conclusion, any kind of policy making in the country, especially related to agriculture or the environment, must be interpreted within this context of special interests, regional influence, lack of institutional capacity and even political will. Declensionist narratives during colonial rule, the *makhzen* system, and Morocco-EU relations today all highlight historical roots of the export-oriented nature of Morocco's agricultural economy that forms the basis of environmental policy making. As such, this institutional structure is critical to understanding the effects of national agricultural policy.

CHAPTER THREE: AN ANALYSIS OF THE GOALS AND EFFECTS OF THE GREEN MOROCCO PLAN

PART A. The Goals of the GMP

This chapter begins with a more in-depth look at official discourse regarding the GMP. Specifically, it reviews the official webpage of the Green Morocco Plan from the Agency for Agricultural Development, which includes two subpages titled “Foundations” and “Approaches to the implementation of the two pillars of the Green Morocco Plan”. The Foundations page includes a list of seven foundations for the plan that cover an array of issues including employment, poverty, private investment, public assistance, stakeholders, land management, water policy (ex. irrigation), natural resource preservation, climate change technologies, renewable energy, and soil fertility. The text on this page comprises 675 words. The “Approaches” page is similar though it focuses on the dual pillared nature of the program, which is further discussed below. This page is shorter and comprises 359 words of text.

The text was analyzed using qualitative content discourse analysis (Schreier, 2014) to understand the main goals of the GMP. As such, this method seeks to summarize the multiple webpages of text regarding goals and reasoning of the GMP, to a fewer number of themes that are identified (p. 181). The coding frame was constructed using two main categories based on the questions: What is the goal? And why? Text was coded line by line, using a spreadsheet. In excel, a separate sheet was used for the analysis of each of the two web pages. The columns of the sheet included the original text from the website, and the two question categories. Findings are summarized below and findings from each webpage are summarized in two separate tables (See Table 1. and Table 2.).

Table 1. First Web Page Analysis: Official Discourse Goals and Reasoning for Foundations of the GMP

<p style="text-align: center;">Goal Question: "What is the goal?"</p>	<p style="text-align: center;">Reasoning Question: "Why?"</p>
<ul style="list-style-type: none"> ● Promote socio economic development ● Exploit country's agricultural potential ● Double the distribution of GDP ● Create jobs ● Fight poverty ● Improve agricultural income ● Increase value of exports ● Make agriculture Morocco's main growth driver ● Aggregation ("coming together" of farmers) ● Agricultural modernization ● Support for small farmers ● Private investment ● Participatory and contextual approach ● Multi-level stakeholder involvement ● Redesigning sectoral frameworks ● Land management ● Continued reform, especially for registration/recording purposes and establishing titles ● Price incentives for water systems, invest in existing systems, modernize irrigation ● Fiscal approach that accounts for regional and economic characteristics of the agricultural sector ● Modernization of distribution channels ● New structures to monitor, support and evaluate ● Preserve natural resources ● Improve resilience; preserve land and biodiversity ● Adopt green technologies/techniques/practices ● Develop renewable energy (for agriculture) ● Save water ● Map soil fertility ● Map land capability 	<ul style="list-style-type: none"> ● Help Morocco's rural/agricultural population ● More profit for small farmers ● Increase quality of products ● Knowledge and technology transfer ● More stable prices ● To make agriculture a sector for all (poor and wealthy) ● Pragmatism; to achieve projects ● Foster aggregation and private-public partnerships ● For sustainable agriculture ● To prepare for climate change ● To adapt to climate change ● To increase crop productivity ● To efficiently use agricultural land <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> ● Not specified

Table 2. Second Web Page Analysis: Official Discourse Goals and Reasoning for Approaches to the GMP

<p style="text-align: center;">Goal Question: “What is the goal?”</p>	<p style="text-align: center;">Reasoning Question: “Why?”</p>
<ul style="list-style-type: none"> ● Development of modern agriculture ● Increasing agricultural income for the poor ● Projects for farmers ● Investment ● Carry out projects in favorable areas ● Individual and group action ● Private investment ● State investment ● Implement projects in fragile areas ● State-beneficiary partnerships ● Sustainability of all aspects of value chain and management of natural resources ● 21 billion dollar investment ● Increase vegetable and animal production ● Reconversion projects ● Increased productivity ● Diversification 	<ul style="list-style-type: none"> ● Greater agricultural potential ● For farmers, social projects ● Increase farmer income ● Increase crop value ● Additional income for farmers <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> ● Not specified

According to the Kingdom’s main GMP webpage, the program was launched with the aim of “[Moroccan Agriculture] becoming one of the first productive development sectors, [through] modernizing agriculture, promoting agricultural investments, good integration of productive chains, ensuring food security, boosting agricultural product exports and valuing local products” (Kingdom of Morocco, 2021). Additionally, the ADA webpage states that the GMP was launched in 2008 by the King as “an ambitious strategy that sets itself the objective of the agricultural sector and which has the real objective of promoting socio-economic development in Morocco” (Agency for Agricultural Development, 2021a).



Figure 4. Four Themes Identified in Discourse Analysis

Based on the analysis, four themes emerged (See Figure 4). The first regards the “ambitious” nature of the agricultural strategy. Answers to the first question (“what is the goal”) were varied and spanned goals relating to socio-economic development, agricultural modernization, the redesign of sectoral frameworks, preserving natural resources (including saving water) and biodiversity, increasing resiliency to deal with the effects of climate change (through the adoption of cleaner energies/technology), and mapping soil fertility and land capability (See Tables 1 & 2). Responses to the second question (“why?”) were also varied though to a lesser extent. In many instances, the “why” was not specified within the lines being analyzed.

The second and third themes are overall in line with official discourse regarding the two pillared nature of the program. The second theme regards language relating to aspirations of increasing agricultural potential. Specifically, it is mentioned that this will be reached through modern and green technologies. Some examples mentioned include implementing irrigation

systems, water and soil conservation techniques, fertilization of farmlands, the dissemination of certified seeds, and improving slaughterhouses. Also, it is mentioned that intensification and reconversion projects will be incorporated; the former, seek to improve the productivity of existing crops, and the latter substitute existing crops for higher value-added crops. Also, it is mentioned that certain data will be collected regarding land capability and soil fertility in order to meet this goal.

The third theme regards bettering the conditions of small farmers. Some avenues mentioned for reaching this goal include increasing animal and vegetable production, diversification (of crop production) skills and technologies transfer, and lastly, through “creation of balanced relations between small farmers, capital markets and price stability” (Agency for Agricultural Development, 2021). It is also mentioned that a “participatory and contractual approach” would be adopted in order to achieve the goals set out for the project. No further detail is given regarding the nature of these approaches.

The last theme regards the emergence of new concepts, some defined elsewhere by the government sources and others left ambiguous. These concepts include aggregation, solidarity agriculture, and pastoral improvement. For example, it is mentioned that one of the foundations of the plan includes “the choice of aggregation as an innovative tool of organization” (Agricultural Development Agency, 2021). According to the Ministry of Agriculture, aggregation is “a form of organization based on the bringing together of agriculturalists for the implementation of agriculture investment projects.. and for the production, enhanced value and commercialization of agricultural products” (Ministry of Agriculture, Fisheries, Rural Development, Water and Forests, 2021). This kind of organization entails “a voluntary partnership” with an “aggregator” or someone who “has management, financial and technical

expertise that permits the optimization of the production process.” According to the Ministry, aggregators may include: large scale farms, economic interest groups, cooperatives or associations, or other industry-specific national actors.

Another concept that comes up is that of solidarity agriculture. A separate page from the ministry mentions that this kind of development is based on “experiences taken in other countries” (Ministry of Agriculture, Fisheries, Rural Development, Water and Forests, 2021). The Agency for Agricultural Development also uses another similar term - Social Agriculture. It states that this group of projects is focused on “farmers in fragile areas” and with the intention of “increasing and stabilizing the incomes of small producers” (Agency for Agricultural Development, 2021). The literature is limited on solidarity agriculture, though in a variety of agricultural approaches, it may fall into the same category as community-supported agriculture (CSA) - a form of agricultural relations that seeks to make better connections between food producers and food consumers, putting first food quality and small farmers (Cone and Myhre 2000, p. 187). This contrasts with industrial agriculture. It is based on “solidarity economics” that is post-neoliberal and draws from economic forms characterized by solidarity as opposed to competition (p.714). Further, a solidarity project is 1) “fundamentally democratic in that it invites participation on the basis of free and equal cooperation,” and 2) “it entails the organization of activities to satisfy human needs in the framework of [an] environmentally sustainable use of resources” (Rosol & Schweizer 2012, p.714-5). In Moroccan official documents, the French term for solidarity agriculture, *L’agriculture solidaire* is used and therefore the term may have originated in a Francophone context (Institut National de la Recherche Agronomique, 2021). This makes sense as the GMP was designed in collaboration with a foreign consultancy firm (Faysse, 2015).

Lastly, the achievements of the plan make mention of “pastoral improvement” though this is not discussed further in detail. However, the concept may refer to the cultivation of land that was previously used for livestock (USAID, 2011). This development is said to be for the benefit of “large nomads who own camel and cattle herds” and relates to the promotion of a recent law passed in the country (ATTAC/CADTM Maroc, 2019).

According to the Ministry of Agriculture, statistically, the plan, by 2020, was set out to “double the Distribution of Gross Domestic Product (GDP).. and create 1.5 million additional jobs, fight against poverty... improve the agricultural income from 2 to 3 times in favour of 3 million rural population” and “increase the value of exports from 8 to 44 billion dirhams” in Morocco’s competitive sectors (Agency for Agricultural Development, 2021a). Two separate pages are dedicated to detailing the achievements of the GMP. One is titled “social agriculture focus” and the other, “Main GMP achievements.” The first discusses the plans’ support for “farmers in fragile areas (mountains, oases, plains and semi-arid plateaus).” According to the webpage, as of 2020, 989 projects were launched and amount to a budget allocation of 14.5 billion dirhams, with 730,000 beneficiaries (Agency for Agricultural Development, 2021c). This implies that wealth has been spread beyond the existing concentration of it within the *makhzen*.

Additional statistics are given to show the success of the project including increased exports, creation of jobs, expansion of drip irrigation systems, along with others (See table 3.). The page points out that investments have “significantly improved performances of the agricultural sector in terms of economic and social aspects” and “these performances have been achieved due to the state’s proactive policy, which has been implemented through setting up both solidarity agriculture projects (Pillar II) and high added value projects (Pillar I).”

Table 3. Green Morocco Plan Achievements (Data Source: Agency for Agricultural Development, 2021c)

Projects Launched	989
Beneficiaries	730,000
Jobs Created	342,000
Investment	104 Billion MAD
Public	40% (of total)
Private	60% (of total)
Agricultural GDP	5.25% increase (annually)
Exports of Agricultural Products	117% increase
Trees Planted	438,455 hectares
Processing Units Established	450
Hydro Agricultural equipment	83,960 hectares
Pastoral Improvement	39,185 hectares
Opening of rural paths	545 Kilometers
Upgraded Cooperatives	720
Beneficiaries	20,000
Aggregation Projects	63
Beneficiaries (farmers)	55,000
Small farmers*	80%
Public Private Partnership Projects around state owned land	1,575
Allocated to small farmers and agr. entrepreneurs	720
Jobs created	63,000
Water Saving	
Area Equipped with drip irrigation systems in 2008	128,000 hectares
Area Equipped with drip irrigation systems in 2018	542,000 hectares

* Small farmer refers to those owning less than 5 hectares of land.

Considering that the GMP had multiple goals, the notion that projects resulted in 730,000 beneficiaries seems to be somewhat good, given the total country population is around 36 million people. However, the statistical data points can only provide a partial image regarding the successes of the strategy. For example, we know that the second pillar of the program intended to help those in poverty, especially small farmers. However, it is unclear to what extent this group actually saw improvements. For example, aggregation projects were said to benefit 55,000 individuals, and 80% of those individuals were small farmers. However, what those benefits

entail is not entirely clear. To what extent these individuals saw an increase in their standard of living is also unclear. Further, Public Private Partnership Projects around state owned land were said to benefit 720 individuals, including small farmers. However, that number also includes agricultural entrepreneurs, which likely do not fit in the category of those living in poverty in rural areas. Again, the distribution and quality of benefits to the beneficiaries is not so clear cut. Additionally, there are no statistics that show the effects on a significant vulnerable population: women.

In stating that the project would help those in poverty, it would be expected that qualitatively, vulnerable individuals in rural areas would also see an increase in the standard of their living. This could be through employment, an increase in income, or access to other entitlements that provide access to food and other basic necessities (Sen, 1981). As such, official discourse highlights the dual-pillar approach of the state (increasing agricultural productivity + socio-economic development), and the variety of goals set out with the GMP. However, details regarding successes of the program are limited to statistics that call for further investigation into qualitative social effects of the plan.

PART B. The Effects of the GMP

This section focuses on a review of the literature and contemporary news accounts to highlight the overall impacts of the GMP at different levels. The objective in this section is to assess whether the government was successful in achieving the intended goals of the program, based on the outcomes of the discourse analysis in Part A of this chapter. The section also covers additional important topics that were discussed in the literature and news accounts, aside from effects of the plan (ex. articles regarding investment in the GMP). These topics are included to provide more context to the effects of the program and to highlight additional important actors and considerations. A few themes have emerged. Various international actors showed their interest in the program through different forms of investment including loans, and donations. Further, the GMP has seen both successes as well as shortcomings and negative impacts (see Figure 5). Lastly, because of Morocco embarking on this ambitious plan, the country became increasingly described as a regional leader on the African continent.

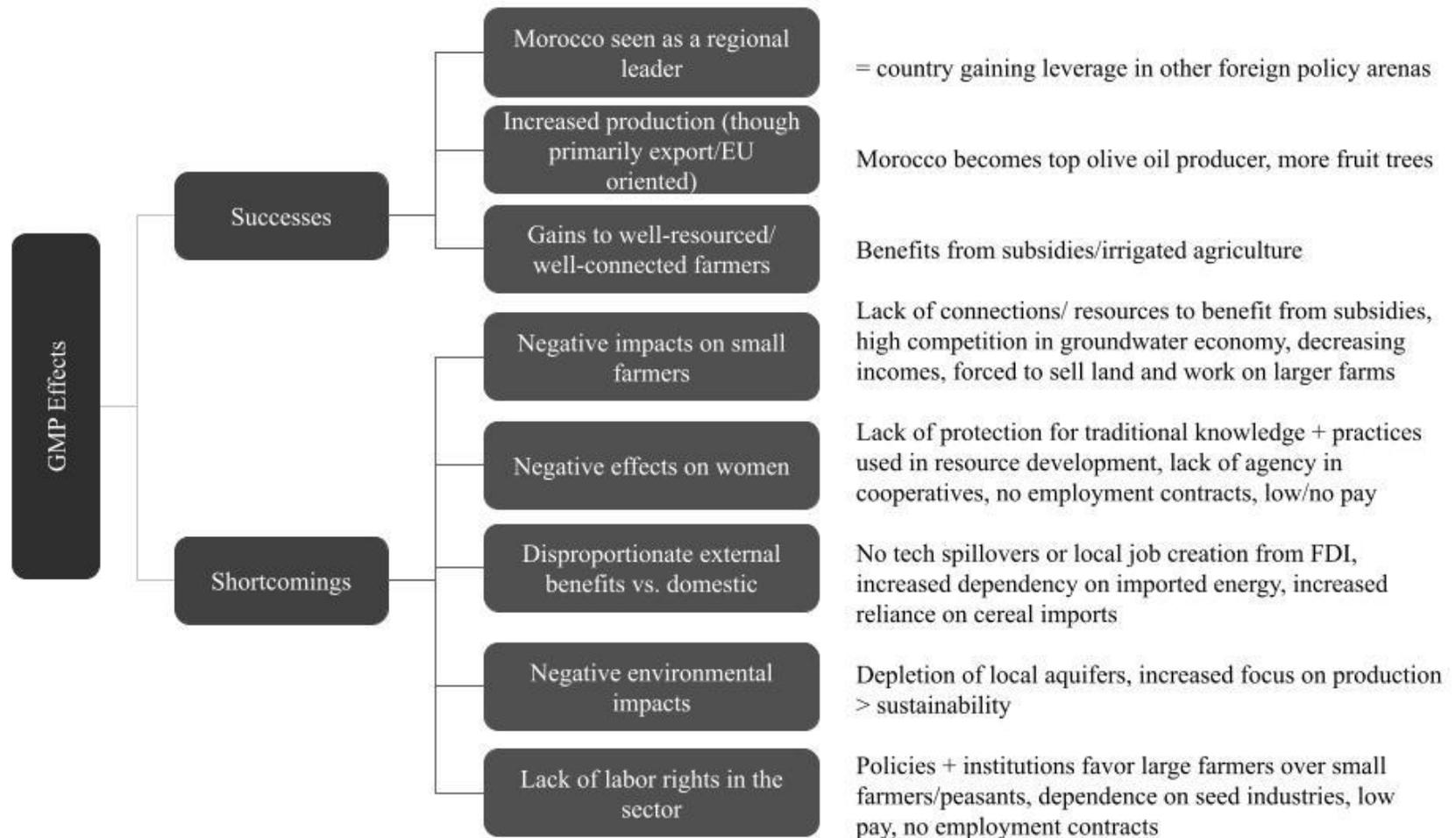


Figure 5. Effects of the GMP identified in the literature and in contemporary news accounts

Investments and Funding

Many news articles from between 2014 and 2017 pointed to various actors looking to invest in the GMP. For example, in partnership with the International Finance Corporation (IFC), the World Bank approved a \$200 million loan that would go toward the project (Elouazi, 2017). Specifically, this funding was provided to develop modern value chains while also including small producers in the agri-food market. Value chains include the range of goods and services that are necessary for a product to make its way from the farm to the consumer (ibid). The loan was granted to support structural reforms relating to food safety and product quality, and also to increase investment opportunities.

Another 60 million euros were granted through a donation from the EU (MWN, 2014). This donation was directed towards four specific regions of the country (including Fes-Boulemane, Meknes-Tafilalet, the eastern region, and Souss-Massa-Draa) and was contributed with the intention of supporting the second pillar of the plan which is to improve the income of small farmers. In addition to helping small farmers, the EU provided the funds in order to increase capacity for program follow-up and take into consideration the preservation of natural resources. This donation follows a previous donation in 2010 of 70 million euros that also was provided to support agricultural sectoral policy.

Aside from the EU and the WB, states have also provided funding for the GMP. The Japan International Cooperation Agency (JICA) for example signed an agreement with Morocco to provide a loan of 1.40 billion dirhams (about 1.5 million dollars) in 2016 (MWN, 2016). As of March of 2016, the first payment of 720 million dollars was issued. This loan was part of a collaboration with the African Development Bank (AfDB) called the Green Morocco Plan

Support Programme. The program is said to “pay special attention to rural women, who occupy 61% of agricultural jobs, and youth” (African Development Bank Group, 2021). Of course, as mentioned earlier, though the sector includes many men, out of all women workers in rural areas, closer to 90% of women-workers are employed by the agricultural sector. This shows how deeply affected women in these areas are impacted by the sector. In the project proposal, these groups are considered as “vulnerable” and the “most destitute segments” of society (p.15). This funding would support women and youth through three mechanisms: 1) promotion of rural entrepreneurship, 2) promotion of gender-sensitive budgeting, and 3) a strategy for mainstreaming gender in agricultural development projects (p. 16). The second mechanism is supposed to ensure that public funds are spent equally between men and women, considering the needs and contributions of each group based on previous allocations (UN Women, 2014).

One article also discussed the involvement of Morocco’s minister of the Economy promoting the GMP to members of Germany's business community at a meeting of the Moroccan-German Joint Economic Commission (MWN, 2014). Germany is said to be a significant contributor to the plan amongst EU member states (Oxford Business Group, 2018). Other international funders included the UN’s Green Climate Fund, the United States, Belgium, France, Saudi Arabia, and Qatar. By 2016, the Moroccan government had allocated 663.9 million euros toward the plan (ibid).

Successes

Some of the successes of the GMP are outlined as “achievements” in table 3. A few of the statistics included in the table were discussed further in news sources and the literature. For

that reason, they are further elaborated in this section. In addition, successes are summarized into three key themes in figure 5, based on overall findings of this chapter.

It should be noted that though the GMP was intended to be a sustainable development effort, the successes discussed in news sources and the literature do not point to increased sustainability. Reasons for this will be further addressed in the section on shortcomings. Additionally, since “success” can be considered a subjective term, here it refers to outcomes that are described by the government, in the news, or in the literature in a positive light. There are some contradictions though between what some describe as a success. For example, Ennaji (2019) details how the National Irrigation Water Saving Program (PNEEI), the GMPs irrigation strategy, had the goal of shifting 550,000 hectares of land from surface sprinkler irrigation to localized irrigation within 10 years. Ennaji (2019) concludes that this goal was met in 2019. According to table 3, the government also highlights this achievement by showing that a certain number of hectares were equipped with irrigation systems in an effort to save more water. However, the literature shows that these irrigations systems are in fact not water saving or environmentally sustainable. This shows that what is deemed by some as a success, may in fact be considered a shortcoming by other findings. This will be discussed further in the section on small farmers.

Other outcomes described as successes include reaching goals regarding the production of cereal and fruit trees by 2018, and specifically, the planting of olive trees on over a million hectares of land. The latter achievement is also touched on in another article that discussed how the GMP led to increases in investments in the olive sector (Ben Saga, 2018). These investments are said to have contributed to developing the production and quality of olives, and improving the sector’s business frameworks (Guessous, 2019), which resulted in Morocco becoming the 4th

largest producer of olive oil in the world (Ben Saga, 2018). This announcement came from the Minister of Agriculture, Aziz Akhannouch, a key supporter of the King and player in the *makhzen*.

Morocco as an African leader

A series of articles from 2014, point to various African countries looking to Morocco as a regional leader due to its successes with the implementation of the GMP. These countries include Cote D'Ivoire (MWN, 2014a) and Guinea (MWN, 2014b). Kobenan Kouassi Adjoumani, the Minister for Animal and Fisheries Resources in Cote d'Ivoire, after meeting with his Moroccan counterpart, Aziz Akhannouch at an International Agriculture Exhibition in Morocco (SIAM) in April 2014, mentioned that he had come to the expo "to get inspiration from this successful model" which is "an experience which deserves to be spread in all African countries" (MWN, 2014a). Adjoumani further stated that he intended to organize a similar agricultural expo in his home country based on the successful Moroccan model. Similarly, Guinean President Alpha Condé stated in a meeting with Moroccan officials that they would like Morocco's support to promote agricultural development in Guinea that draws inspiration from the philosophy of the GMP (MWN, 2014b). The country's Minister of Agriculture, Jacqueline Sultan, specifically noted Morocco's "progress made over the past year ... in ... agricultural products processing" (ibid).

In both cases, the countries' leaders voiced respect and admiration for Morocco because of its implementation of the GMP. They additionally both mentioned aspirations of developing their own agricultural sectors based on inspiration from the Moroccan experience. However, it is not entirely clear which aspects of the program or its goals that the officials would like to

replicate. It may be that other African states would like to also adopt a double pillared approach that prioritizes both production and socio-economic development for vulnerable populations. However, the contradictions between these two approaches (which have been discussed in the previous sections of this chapter) are not acknowledged.

On a similar note, Nicolai (2020) has argued that Morocco's initiatives such as the GMP are part of the Kingdom's approaches to "creating outward legitimation" and these initiatives are "a development fed less by significant progress in issues of environmental protection and sustainability" (p. 18). Specifically, the author points out how Morocco's domestic green initiatives have been coupled with many moves towards cooperation and foreign direct investment into climate-friendly action in other Africa countries, and this may be a strategic step for Morocco to gain leverage on one of its "prime foreign policy goal[s]....gaining control of the Western Sahara" (p. 17). Nicolai further asserts that the country "appears to have achieved its first success with its multi-channeled diplomatic strategy of African re-integration" as sixteen African countries opened consulates in the Western Sahara between 2019 and 2020. This raises questions about whether efforts such as the GMP are implemented for other strategic purposes, and so issues such as sustainability may not in fact be a top priority.

These statements are in line with discussions regarding current Morocco-EU relations (discussed in chapter two) and the ways that the Kingdom has been using environmental action strategically for other purposes. Nonetheless, it can be said that due to the GMP, Morocco has successfully positioned itself as a regional leader in terms of environmental action, and this has provided further opportunities for the Kingdom.

Shortcomings and Negative Impacts

As it regards shortcomings of the GMP, previous research has discussed mainly the negative impacts on small farmers, the rural poor, and women. Some studies have shown that certain aspects of the program have been more beneficial to external actors as opposed to Morocco. Other works have further discussed the effects of the program on food security and ecological systems.

Small Farmers

Faysse (2015) highlights some of the main reasons that the GMP failed to meet the needs of small farmers. The author conducts an analysis on the rationale behind the GMP through looking at policy documents as well as instruments used in the program's implementation. The author argues that there is a lack of genuine consideration for small farmers in the program. He finds that because the program does not provide a definition of what constitutes a "poor vulnerable farm", or "rural territories" it is left up to provincial officials to make this determination, and oftentimes, instead of involving the intended beneficiaries of the second pillar of the program (small farmers), officials work with farmers who they already have a relationship with (p. 8). These individuals are typically entrepreneurs or are already well-off farmers. Faysse also attributes these shortcomings to the traditionally state-led management policies. He discusses how this style of management does not fully involve farmers or farmer organizations in project design. Instead of including small farmers as agents of the intended change, they are merely treated as beneficiaries. This in effect hinders the ability of the state to truly incorporate and address their needs into such development schemes and instead leaves them behind while those already well-off can benefit from state initiatives.

Some of these findings are also supported in another study that looks at prevailing narratives of farmers' failed collective action in Morocco. Bouzidi, Faysse, Kuper and Billaud (2020) utilize ethnographic research to analyze actor's discourse regarding farmer's collective action in the Gharb region in Morocco, which has been part of the Gharb Regional Agricultural Development Plan, a regional plan supported through the GMP. The authors noted that inhabitants of all three villages included in the research expressed negative views regarding farmers' organizations. Many farmers mentioned their distrust in such organizations due to a lack of transparency, as well as they believed that "notables had monopolized the management of the farmers' organizations for their own benefit, with the support of public authorities" (p. 353). The authors conclude that the narratives revealed through their analysis are the result of Morocco's "agricultural administrative apparatus..where the state most attempted to design and control a 'social order' (p. 359).

Ameur et al. (2017) analyze the impact of agrarian transformations (including those implemented through the GMP) specifically on the groundwater economy. The authors conducted interviews with members of agrarian reform cooperatives, capitalistic actors, and state agents, and further conducted an agricultural survey of 321 farms in the Saiss Plain. Information was collected regarding the type of farmer, their type of access to groundwater (ex. through a well or tube well), and what kinds of farming systems the farmers practiced. The authors findings were that "the endowed socially solvable farmers benefit most [from state subsidies and the groundwater economy], which helped increase socioeconomic differentiation" (p. 215). This is due to the high level of capital needed to succeed in irrigated agriculture, as well as the lack of accessibility to state subsidies. In theory, subsidies are available also to small farmers, though, a land title must first be obtained, and often even then, small farmers do not have the additional

means to “valorize the assets obtained” from such investments (p. 215). As a result, many former cooperative members actually saw a decline in their income. For example, although overall farm income increased between 2005-2013, the total net income of 50% of cooperative members decreased by 12% between 2005-2006 and 2012-2013 (p.214). Many of the gains accrued mainly to wealthy farmers. As a result, many cooperative members (21% in the study) ended up selling their land. In many cases, they sold their land to lessees and then became laborers for those same individuals. As such, these small farmers lost their money in irrigated farming and then became even more vulnerable due to their loss of land and income from it (p. 214).

In addition, large farmers were found to deplete groundwater the most, with investors and lessees withdrawing more than 85% of groundwater in the region under study (Ameur et al. 2017, p. 215). One lessee discussed how their goal is short term profit, and they are not interested in purchasing the land since the “intensive practices used require frequent changes of land” (p. 211). This shows how liberalization by the state and privatization of agricultural lands through the GMP has resulted in further commodification of resources (i.e. the soil and land), and unsustainable practices, that have depleted natural resources as well as made the poor more vulnerable, mostly to the benefit of wealthier investors. It is further an example of unequal ecological exchange, considering the disproportionate share of burden being placed on Moroccan farmers, while a large amount of production is being exported to countries of the EU.

In 2015, the United Nations Special Rapporteur on the Right to Food visited Morocco and pointed out that “more work is needed to accomplish the plan across Morocco to include rural ‘small-scale farmers’” and also the program “should be implemented equally across the regions through effective consultation with local populations and improved coordination of services” (Dieseldorff, 2015). She also discussed the need for improved infrastructure throughout

the country and in remote areas “to ensure easy access to markets, and to attract investment to rural areas.” This points to broader institutional failures that have inhibited benefits from being obtained by small farmers. Lastly, she pointed out that projects targeting women and young farmers should be encouraged to a greater extent.” All these statements support qualitative findings that highlight shortfalls of addressing the needs of small farmers and vulnerable sectors of society.

Gendered Impacts

In addition to helping small farmers, the GMP was supposed to help women through diversification projects that would create “additional farm income through additional productions [including] saffron, honey, [and] medicinal plants” (Agency for Agricultural Development, 2021). Montanari & Bergh (2019a) provide a gendered political economy approach to the implementation of these diversification projects in the province of Rhamna, particularly focusing on income generating activities (IGA) in the form of rural cooperatives. The authors conducted interviews and focus groups with 69 women from cooperatives from seven villages in the region. The cooperatives included in the study were responsible for the production or development of natural resources including seeds, aromatized couscous, honey, cumin, cactus, quinoa, and honey. They also conducted interviews with managers of the focus groups and representatives of local government. The authors found that illiterate rural women in the cooperatives did not participate in decision making processes (p. 415). Further, they were employed as cheap and sometimes free labor and did not have a way of voicing discontent with this (p. 415). The authors point out that poor women’s participation in these programs did not lead to their empowerment, but rather further marginalized them. The main beneficiaries of these cooperatives turned out to

be educated women who filled administrative positions in the state-supported projects and who also had the economic capability to fulfill the required initial financial contribution needed to start a cooperative (p. 414).

In another paper that focuses similarly on IGAs in women's cooperatives in the same region, Montanari & Bergh (2019b) look specifically at women's role in product development based on traditional knowledge and practices. The authors find that within the cooperatives, women who are part of the labor chain "remain unseen and do not receive any credit for their contribution[s]" (p. 3). For example, with the production of cumin, the cleansing of the seeds requires multiple steps, the final being done by hand, after all of the siftings done with machinery, in order to separate dust from the seeds. This step includes the use of traditional baskets, and a specific style of tossing. This practice is rarely being passed down to younger generations, who opt for store-bought and already processed cumin, as opposed to labor intensive methods that follow harvesting of the cumin seeds. The cumin specifically in this cooperative is supplied to retailers in Germany and sells for 3 euros per unit (5). Similar labor-intensive processes are utilized in the development of other natural resources that are transformed into commercial products and sold both domestically and abroad.

The authors argue that the reason women do not benefit much from their involvement in these cooperatives is due to product development not being acknowledged by employers and national legislation through Access to Benefit Sharing (ABS) mechanisms, for example. The authors assert that such mechanisms would "reverse the current invisibility of women and promote their status within the cooperative management, perhaps even enabling them to demand better wages and more decent working conditions" (p. 9). Though Morocco has signed some related international conventions such as the Convention on Biological Diversity (CBD), the

country is not a party to the Nagoya Protocol and has not ratified the treaty on genetic resources or traditional knowledge (p. 8). Meanwhile, educated women who hold administrative roles at the cooperative benefit from presenting the high-quality products at trade fairs and other international expos used for the marketing the industry's natural resources (p. 9).

Local vs. External Benefits

In another series of studies, researchers find that instead of benefitting Morocco, some programs sponsored by the GMP lead to benefits to outside international actors. For example, *Olivié & Pérez (2018)* analyze features of a Spanish-owned almond farm in Morocco leased from the state through the Green Morocco plan (GMP). The authors collected qualitative and quantitative information about labor, production, wages, and sales through a questionnaire, and also conducted interviews with members of the company and other actors in the agricultural sector. This farm was meant to produce almonds that would be consumed by EU markets (p. 43). The authors find that the foreign direct investment (FDI) by the Spanish farm did not lead to any of the development outcomes that were expected by the GMP. First, the investment did not lead to any local job creation as most of the people employed by the farm were Spanish expatriates. Secondly, there were not any tech spillovers to locals as there was a lack of linkage between the foreign company and the local population. Finally, capital for the farm was imported from Spain and therefore did not lead to any local investment. As a result of these circumstances, profits favored the foreign investor exclusively.

Doukkali and Lejars (2015) utilize a social accounting matrix (SAM) to analyze the consumption and use of energy and irrigation water for agriculture in Morocco. Their research is based on the National Program for Water Savings in Irrigation (PNEEI) which is a strategy that

falls under the GMP and was established in 2007. This program seeks to convert irrigation systems to being more localized and thus more water-saving. The SAM is used to “identify and assess the effects of inconsistencies between policies” and provides a basis for “examining both growth and distribution issues in the economy within a single analytical framework” (p. 423). The authors utilized data in the study from the Department of Energy and the Ministry of Agriculture that included areas of land under cultivation, changes in cultivated and irrigated areas, and energy consumption by sector and type of energy (ex. water, wind, solar). In this case, the method is used to look at the inconsistencies between water or agriculture policies and energy policy. For example, as a result of increased reliance on irrigation, more energy is required for pumping water. As a result, energy per hectare increased by 40% between 2004 and 2011 (p. 424). Based on their research, the authors find that in 2011, total energy subsidies to the Agriculture sector reached 7.5 billion MAD (p. 433). The irrigated sector additionally consumed 9 billion MAD of energy, which is 4.5 times the consumption of the rainfed sector (ibid). Here it is important to note that 96% of the country’s energy is imported (p. 424). This energy is mostly made up of refined petroleum and coal and comes primarily from EU countries (OEC, 2021). Additionally, considering multiplier effects - production, value added, and household income were higher with rainfed agriculture (p.434). As a result, the authors argue that Morocco would be better off investing in the improvement of rainfed agriculture since the value added and revenue based on investment is higher. The authors suggest improving the productivity of rainfed areas by investing in soil moisture management, zero tillage, and drought resistant varieties for example (ibid). In summary, Morocco’s investment in irrigated agriculture is less efficient for the country and increases its reliance on imported energy from the EU and other countries. This poses the question then, of whether such investments are more to the benefit of external actors,

or domestic interests, since Morocco is spending more money on energy and subsidies, while also using a large amount of water resources with the current strategy.

Another study by Saidi & Diouri (2017) analyzes whether the GMP has increased food self-sufficiency in Morocco. Specifically, the authors use the term food self-sufficiency to refer to the population's physical access to food, in addition to long-term availability of food. The authors utilize statistical data such as import and export data, as well as volume of food production in their analysis. The authors major product focus is on cereals including soft wheat, since 60% of the country's food energy supply comes from cereals (p. 34). One of their major findings of a shift due to the GMP regards the increased conversion of cereal crops to fruit tree cultivation, or arboriculture, since according to the new agricultural strategy, the latter tends to be less productive and more water intensive. However, the authors find that in actuality, wheat production is not more water intensive than arboriculture (p. 36). Further, due to the shift in production, Morocco has become more reliant on cereal imports. Between the periods of 2000 and 2015, the average import volume of cereal increased from 34 to 43 million quintals (p. 36). The authors further point out that in addition to the country becoming more dependent on the international market for cereal imports, Morocco did not experience an adequate increase in exports (p. 38). Between 2008-2014, the growth rate of food exports decreased by 1.1 percentage points (p. 34). For the authors, this does not reflect a strategy that can sustainably ensure food availability and self-sufficiency domestically. Instead, this agricultural policy, not accounting for local diet needs, increases reliance on the import of staple dietary needs, and depletes local water supply through the shift in cultivation of fruit trees that are more water intensive (and which are a primary export as well).

Environmental Impacts

In addition to the above-mentioned studies that touch on some of the environmental challenges faced with social agriculture projects, additional studies primarily focus on the ecological consequences of intensification schemes through the GMP. For example, Molle & Tanouti (2017) provide an analysis of the implementation of drip irrigation in Morocco and the resulting environmental impacts. They draw on fieldwork from between 2013-2017, which included interviews with farmers in the Marrakech region and with officials and decision makers in both Marrakech and Rabat. In addition, they use discourse analysis to look at the official document of the PNEEI to understand contradictions between policy and implementation. According to the authors, under the GMP, drip irrigation is subsidized up to 100%, with the goal of raising agricultural productivity and saving water. However, the findings show that to the contrary, drip irrigation has led to evapotranspiration (ET) due to intensification (increase in inputs/outputs, i.e., water) and expansion (cultivation in new areas), which in turn has depleted local aquifers. ET includes crop transpiration as a result of more frequent and timely irrigation; as well as soil evaporation due to a variety of factors including soil texture, density of drippers, and whether the soil is shaded or not (p. 172). Additionally, ministries like the Ministry of Agriculture have shown to have an upper hand in adopting their interests over those of other sectors such as the water and environment administrations. Various sectors also show to have different priorities, such as the Ministry of Agriculture prioritizing production over water conservation. For example, one high level official from the Ministry of Agriculture mentioned that “the policy [PNEEI] is about investing for production, and the [concern for the] environment will come later” (p. 176). The authors point out that though shifting to drip irrigation may have led to the production of higher value crops, an increase in irrigated areas and higher yields and

incomes, the cost has been that “these private benefits arise in parallel with a huge social and environmental cost” - more water consumption due to ET, and increased aquifer depletion (p. 176).

Labor Rights

Aside from sustainability issues and specific effects of agricultural projects, some articles have discussed the GMP in the context of broader issues with the country’s labor rights and the lack of institutions and legal mechanisms to protect the interests of vulnerable groups. Those in the field have pointed out how the Moroccan state has not done enough to safeguard vulnerable populations, who are incorporated into the country’s rural modernization projects, from more (financially and politically) powerful actors. One article discussed the importance of Morocco voting yes in the (then) upcoming United Nations General Assembly (UNGA) vote on the Declaration on the Rights of Peasants and other People Working in Rural Areas, UNDROP (Wang, 2018). This declaration was drafted in large part by La Via Campesina, the largest international group of peasant organizations (La Via Campesina, 2018). According to the declaration, a peasant is defined as:

Any person who engages or who seeks to engage alone, or in association with others or as a community, in small-scale agricultural production for subsistence and/or for the market, and who relies significantly, though not necessarily exclusively, on family or household labour and other non-monetized ways of organizing labour, and who has a special dependency on and attachment to the land. (UN General Assembly 2018a, p. 4)

The importance of this declaration stems from its role in ensuring that peasants are guaranteed some of their most basic human rights including the right to land, the right to determine and develop priorities for their development, the right to access to natural resources, the right to healthy and safe working conditions, the right to information and agricultural technology, the right to food and freedom from hunger, the right to seeds and traditional agricultural practices and knowledge, and the right to safe drinking water and sanitation (UNGA, 2018a).

In 2018 Morocco voted in favor of UNDROP (UNGA, 2018b). This treaty is critical for Morocco because the peasant or small farmer population consists of over 1.5 million people (Wang, 2018). Faical Ouchen, the secretary general of the National Union of Peasants, a union affiliated with the National Federation of the Agricultural Sector (FNSA), points out that agricultural policy in Morocco currently does not address this group of the population (ibid). He further mentioned that policy is based mainly on the GMP which he says is “directed mainly to large farmers.” This contradicts the second pillar of the program, outlined in the GMPs goals. In addition, he mentions that this treaty would call for changes in agricultural policy that would result in protections for peasants against “mafia real estate agencies” that are known to take advantage through random expropriations. No further information is provided regarding these expropriations, though there have been recent outcries in the country due to government moves to take over properties that previously belonged to tribal communities (Ben Saga, 2019). Ouchen also discussed how the adoption of the treaty would protect small farmers from “large seed industries who reproduce non-reproducible seeds” which “both of these [seed industries and mafia real estate agencies] force small farmers to depend on these large structures.” Such articles highlight the ways that the outcomes of the GMP have shed light on challenges faced by the labor sector due to agricultural modernization efforts.

Concluding Remarks

In conclusion, it is evident that many international actors saw the value and benefits that could be obtained from the GMP, and thus invested heavily in the program. Additionally, it seems fair to say that the plan did result in many benefits for Morocco over the years (see Table 3 in chapter 3), including an increase in arboriculture, which further made Morocco a leader in terms of olive production, for example. At the same time, many shortcomings and negative impacts have been noted. This is particularly important because all of the negative outcomes have impacted some of the country's most vulnerable populations: small farmers, the rural poor, and women. At the same time, adverse ecological effects have been noted, including the depletion of local aquifers. While these negative effects have been felt by the most vulnerable, it is evident that larger farmers and entrepreneurs have been able to benefit from government subsidies, cheap labor, and large profits that primarily target European markets. The state has been largely absent in ensuring that Moroccan peasants are afforded some of their basic human rights, elaborated in the UNDROP, including but not limited to the right to secure the sustainable use of natural resources (article 5), and the right to work in safe and healthy work conditions (article 14). The former is exemplified in the overwhelming depletion of groundwater by lessees and investors (Ameur et al. 2017) and the latter, by the fact that most women workers in agriculture do not even have an employment contract (European Bank for Reconstruction and Development 2015). State officials as well as wealthy entrepreneurs are aware of these issues, as in many studies discussed above, officials explicitly mention their prioritization of profit, as well as prioritization of production over environmental sustainability (Ameur et al. 2017, p. 211; Molle & Tanouti 2017, p. 176). However, labor rights are less discussed in the literature when talking about impacts of the GMP, and only came up in one news article (Wang, 2018).

CHAPTER FOUR: DISCUSSION AND AVENUES FORWARD

We return to the primary research questions: What have been the goals of the GMP? And, what have been the effects? Four main themes emerged from the discourse analysis relating to the goals. First, the goals of the plan are ambitious and multifaceted. They range from agricultural modernization, combating climate change through sustainable development, land management, and fighting poverty. At the same time, the strategy is oriented mainly toward increasing agricultural productivity and improving socioeconomic development, especially for small farmers and other vulnerable populations. The former has been referred to in the literature as “modern agriculture” and the latter as “social agriculture” (Adous, El Ghouat, & Ibannain, 2019). This two-pillared approach is framed in terms of environmental sustainability and ways that the state would address economic and social challenges in a way that is also conscious of ecological systems (through the preservation of natural resources and water, for example). Aside from these main goals, the discourse analysis also pointed to the emergence of new internationally inspired approaches, such as the notion of solidarity farming. It seems most likely that this concept draws from the literature pertaining to French agriculture, considering the term is originally French (*L’agriculture solidaire*), and in English, the closest related concept that can be found in the literature is that of solidarity economics (Rosol, Marit, & Schweizer, 2012). This makes sense in the context of current EU influence on Moroccan agricultural policy, and especially the influence of the country’s French colonial past and agricultural legacies from this past. The French historically played a significant role in the establishment of what is now the modern agricultural sector in Morocco, which was set up as an industry that would be oriented toward French markets. Much of the research discussed in chapter four further points to ways that agriculture in Morocco has continued to be export oriented, to the detriment of local

development. One way this plays out is that instead of focusing on foods that are critical to the national diet such as cereals, Morocco's agriculture sector has focused more on export products like fruit trees, resulting in increased reliance on imports for domestic food security.

As it regards the effects, they too have been varied. Many successes have been noted, and as a result, a few other African countries such as Guinea and the Ivory Coast wish to adopt similar agricultural strategies, based on the Moroccan experience. However, many shortcomings have also been discussed in the literature and recent news sources. These especially relate to Morocco's most vulnerable populations: small farmers and women, as well as ecological concerns. Projects have disproportionately served the wealthy and well-connected members of society. Benefits to poor, small farmers are small in scale to benefits for large farmers. In this context it makes sense that more emphasis was given to phase I of the GMP (increasing production and foreign investment) than the second pillar. As the literature shows, policy directed more incentives to large farmers (Faysee, 2015; Ameur et al., 2017) a point supported by Facial Ouchen, secretary general of an agricultural union in the country.

As Houdret & Amichi (2020), accurately point out, "the new agricultural strategies primarily support access to productive resources for well-off farmers and illustrate how water, land and subsidies increasingly benefit only a marginal, privileged group of farmers" (p. 11-12). Since these groups have greater capital and well-established connections, they have been able to benefit from state subsidies, and they have also been able to provide the additional capital or technical expertise needed in response to challenges, such as declining water tables. On the other hand, these same challenges, when faced by small farmers, lead to individuals having to sell their land. Small farmers and those who are not direct beneficiaries of large-scale farm production,

must further deal with the consequences of greater water shortages. Agricultural elites on the other hand are able to move on by leasing new plots of land.

These findings make sense in the context of Morocco's political patronage system, or the *makhzen*. Governance in Morocco has traditionally been highly centralized, with the King and his elite circle having the greatest control over the distribution of benefits and resources in the country. The research discussed in chapter four points to ways that this centralized system still inhibits the distribution of benefits from agricultural productivity. Though the government has provided many subsidies for agricultural investment, it is evident that those benefiting the most are already economically well-off or have connections with local government officials (Ameur et al. 2017, p. 215). In the Souss valley for example, many agricultural investors turn out to stem from other business sectors, are politicians, or are part of the military (Houdret & Amichi 2020, p. 15). Though the state claims to have a social agriculture focus, institutional mechanisms block benefits from reaching those that make up groups of lower socio-economic status.

In addition, it is evident that the state has not done enough to support agricultural workers by ensuring proper working conditions. These agricultural workers include small farmers, as one study pointed out how sometimes farmers who did not reach success with GMP sponsored initiatives, ended up selling their land and working for other lessees (Ameur et al. 2017). A recent work on agricultural policy in Morocco vividly describes the situation of farm workers stating that:

As modern, air-conditioned trucks leave farms and packing stations loaded with vegetables and fruit for foreign markets on a daily basis, thousands of farm workers are crammed into trucks or 'death' tractors (frequent fatal traffic

accidents) that transport them to production units that do not meet basic health and safety work regulations, wages and social security. (ATTAC/CADTM, 2019)

This ties back to the theoretical expectations discussed at the beginning of this thesis. In the literature, UEE is discussed as a relationship where poor nations (or any specific geographic area) deplete their natural resources in order to produce materials and participate in trade with more affluent societies (Rudel et al. 2011). In the case of Morocco, the agricultural sector invests heavily in the production of cereals and especially fruit trees for these products to then be exported to other markets, primarily the EU. At the same time, Marx's notion of the metabolic rift similarly captures this kind of exploitative relationship, and Marx includes in his discussion the alienation of labor that takes place in capitalist agriculture (Foster 1999, p. 398). He discusses how capitalist production, "only develops by simultaneously undermining the original sources of all wealth - the soil and the worker" (Foster & Holleman 2014, p. 207). In this kind of exchange, according to Marx, "nations in the periphery [are] often reduced to mere raw material production..." and this kind of relationship in effect does not provide circumstances for a sustainably growing local economy, which results in poor conditions for locals. This is exactly what has been taking place in Morocco. The rift specifically is taking place between the EU and Morocco, through the use of water in the production of agricultural products, also referred to as "virtual water" (Hoekstra, 2003). Many argue that as the country continues to struggle with water shortages, rural populations who rely on agriculture for their livelihoods will be disproportionately affected, and as a result there will be increased outward migration from rural areas (Tekken & Kropp, 2012). This is not to say that no small farmers are able to benefit from

the GMP, or that there are not opportunities available to them, though it is to say that the odds are disproportionately stacked against newcomers and those with less resources and connections.

UEE is further supported by discussions about Morocco as an export-oriented economy during the colonial period and post-independence. The *makhzenian* system, as one that seeks to maintain the status quo, does not challenge these unequal exchanges but rather supports them as a basis for continued rent-extraction. As long as historically powerful agricultural elites are able to secure trade relations with actors from within the EU, they are able to continue benefiting from subsidies and their licenses for resource extraction, as well as profits from trade. Both the existing literature and news articles emphasize disproportionately favorable effects for countries of the global north, and the idea of similar vested interests amongst members of the Moroccan elite, and actors from within EU business sectors. It is possible that other corrupt African leaders face similar incentives in their countries and as such would like to replicate the Moroccan model.

As such, benefits to the environment stemming from this program are questionable. The literature shows that increased production and modern irrigation techniques have contributed to the depletion of local aquifers (Ameur et al. 2017; Molle & Tanouti, 2017). As a result, there are contradictions between the intended goals outlined in official discourse and implementation. The kingdom's website emphasized benefits to local economies and the environment, though it looks as though the environment is taking a greater hit, which will only be exacerbated by the effects of climate change. One study has posited that the only solution to guarantee sustainable water use into the future is through "a drastic reduction of irrigated agricultural area" (Johannsen et al. 2016, p. 1).

As such, it can be said that the socioeconomic effects of the GMP have been varied depending on which sector of society we are concerned with. Small farmers and already

vulnerable groups, such as women, have not seen the positive effects of this plan that large scale farmers have. News articles and official discourse that emphasize statistical data to show successes of the program are not able to capture the complexities play out in the field. Qualitative reports such as those in the literature, as well as on the ground reflections, such as the remarks of the UN special rapporteur who visited Morocco and emphasized the need to include small farmers and locals in the planning and benefits of the program, are able to provide more nuanced perspectives on the full effects of this ambitious program. For example, in the beginning of chapter 3, one article was mentioned that highlighted the success of the GMP due to the installation of localized irrigation on over 5000,000 hectares of land. Though as Ameer et al. (2017) point out, localized irrigation is highly risky for small farmers, and has contributed to the depletion of local water sources. Perhaps if the intended beneficiaries of Pillar II (small farmers) were included in program design and given more agency in this program, the GMP could have further attained its goals relating to socioeconomic development. However, as Faysse (2015) points out, it was mainly foreign consultants and the Ministry of Agriculture that designed the GMP, with marginal input from farmers, academics, etc. (Faysse 2015, p. 11).

Some may argue that any government policy is bound to result in both positive and negative effects and of course the most vulnerable face the brunt of the consequences. Further, agricultural modernization projects in general, are known to have adverse outcomes for certain segments of the population. However, the importance of this research is to show that government discourse from the beginning contained a paradox. Capitalistic motivations are in stark contradiction to the needs of small farmers and the broader agricultural labor force. Further, this research points to the ways that development schemes often do not address underlying or root causes of the misery of the most vulnerable populations. In this case, I have argued that Morocco

would be better off focusing on improving institutions relating to labor rights in the agricultural sector, in order to improve the lives of small farmers. Other opportunities must also be provided such as education as many people in rural areas are still illiterate in Morocco. It is well known that further benefits accrue from something as simple as a university education. As was seen in the cooperatives and with irrigation projects in chapter four, it is the educated who are more connected and that have ties to local government and the *makhzen* and therefore have access to more opportunities than poor uneducated Moroccans. Unfortunately, as it turns out, in some cases these educated well connected elite are also the same individuals who exploit the poor rural workers in cooperatives (Montanari & Bergh, 2019a) or other agricultural workers working on farms and subservient to what the GMP refers to as “aggregators”, also discussed in chapter 3 (ATTAC/CADTM Maroc, 2019).

At the same time, this paradox is not necessarily unintended. Bouzidi et. al. (2020) discuss how historically, the Moroccan state authorities have rejected a development project that included the grouping together of small farmers into a larger economic unit, because “to install dissent at the gate of Rabat” - Morocco’s capital city - was not a good idea (p. 346). The government felt that by empowering these groups, the result could be that the new powerful block would “counter the powers of the notables” who were “key allies of the monarchy in rural areas” (ibid). Instead, local authorities maintained control over farmer organization operations. This entrenched system of elite power and overbearing interests continues to inhibit the country from reaching its sustainable development objectives.

Policy Implications

Strategies are needed that truly empower small farmers and vulnerable populations. These policies include changes to the labor sector and the ways that agricultural workers are (mis)treated and (in)adequately compensated. The fact that Morocco voted yes on the UNDROP is a good sign, though this vote will be meaningless unless the country actually takes steps towards building institutions and mechanisms that guarantee the rights of poor people in rural areas, who make up a majority of the labor force in the agricultural sector. Further, in terms of agricultural production, the country should look to ratify international agreements and adopt policies relating to ABS that would recognize the traditional knowledge of rural women in multiple stages of resource production, and potentially enable them to access more benefits for their work, including better wages and working conditions. Further, agricultural modernization projects that focus on increasing production must be very attentive to the adverse ecological effects of such programs. Many studies have discussed the negative impacts of irrigated agriculture, and even show that in Morocco, rainfed agriculture may be more sustainable and beneficial to locals (Doukkali and Lejars, 2015). These findings should not be ignored in future agricultural strategies that are marketed as “green” plans. Investments are also needed in education, health, and infrastructure to provide better opportunities for the most vulnerable, including women and youth. Such investments can help vulnerable populations develop the capacity to deal with environmental or economic burdens.

Avenues for further research

Future research could focus more on youth as a vulnerable population and the ways that they are impacted by agricultural strategies like the GMP. Though youth are discussed in

planning documents, the literature has not explored the effects of such programs on youth. In particular, a loan from the African Development Bank designated through the Green Morocco Plan Support Programme (discussed in chapter 3) was intended to pay special attention to women and youth. Funding through this program was intended to support rural entrepreneurship, though it is unclear whether this was achieved. Further, though women are addressed in the literature through their involvement in traditional resource development, there is less information about whether they too have been involved in more modernized agricultural production and entrepreneurship. Future works could explore this further.

Looking to the future

A new series of follow up plans for the agricultural sector have been announced for implementation between 2020 and 2030. The Green Generation 2020-2030 and Forests of Morocco have similar goals to the Green Morocco Plan. They include agricultural development, human development, and environmental protection (Hatim, 2020). The Green Generation includes two strategies, the first focusing on youth and the middle class in rural areas, and the second, focusing on human and social development. To reach these objectives, the plan seeks to increase agricultural exports. Forests of Morocco is a strategy that intends to utilize the country's forests as a mechanism for development. It will do so by planting trees and modernizing forest professions to promote ecotourism and create new jobs.

What is not explicitly addressed in discussions around the new plans is that the mechanisms to reach many of the goals are contradictory. Many farmers are suffering precisely because of water shortages and depleted aquifers, partly stemming from agricultural modernization and intensification projects (Johannsen et al., 2016). Increasing productivity of the

land has been shown to further add to the water crisis that the country is facing. Further, farmers and vulnerable populations need more government support aside from subsidies to reach upward mobility. Though many of the objectives announced are impressive and could potentially produce great outcomes for the country, the government must do more to protect vulnerable populations such as women and other agricultural workers. The government must also take environmental protection more seriously. Insofar as these plans exclude local farmers and other vulnerable groups from the program design phase, these initiatives will continue to benefit the elite, as well as European actors involved, to the detriment of the poor and other vulnerable populations in Morocco.

Limitations

As noted in the contribution section of this thesis, the findings here are limited to Morocco. At the same time, some broader themes identified, including the negative impacts of agricultural modernization and capitalistic production on ecological systems and agricultural workers, may be relevant in other developing countries that are looking to implement similar rural development initiatives, or that already have. Further, as it regards electoral politics in Morocco and the limited effects that the average citizen can have on environmental policy due to structures such as the *makhzen* (discussed in “The Makhzen” section of chapter two), this study is limited in that no field research was conducted. Therefore, informal dynamics that may affect electoral distribution, or specific effects of *makhzen* actors on policy implementation of the GMP, could not have been observed in this research.

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