Beyond Extractivism: Toward a Feminist and Just Economic Transition in Morocco and Egypt

Report by MENA Fem and Greenpeace MENA

Introduction

The Middle East and North Africa (MENA) is one of the areas most affected by climate change. The region is warming up twice as fast as the global average[1] and experiencing extreme weather events and water stress. North African net energy importer countries, such as Egypt and Morocco, are facing the compounded challenge of addressing energy security issues amidst their dependence on imported fossil fuels and growing energy demand.

Against this backdrop of interconnected challenges, both Egypt and Morocco are aiming to leverage their strategic locations south of the Mediterranean, along with their solar and wind potential, to position themselves as pivotal points in Europe's quest to diversify its energy supply. Securing European investments in energy projects is therefore crucial, not only for the economic growth and energy transition of these two countries, but also for Europe's energy security and climate goals. However, despite the mutually beneficial potential of such cooperation, critics have highlighted a tension between European interests and national needs. These concerns underscore the importance of a critical assessment of the investments' scale, scope, and impact to ensure a just and equitable transition for the host countries.

This report offers a detailed analysis of European investments in oil & gas, renewable energy, green hydrogen, and agriculture sectors in Egypt and Morocco. It explores the scope and nature of these investments, while assessing their socio-economic and environmental impacts in the host countries. It offers insights into the ways in which current investments reinforce neocolonial relations through the extractivist practice of transferring raw materials and resources from the Global South to the Global North, with little value added to Global South economies. In the agriculture sector, countries in the Global South, often trapped by their need to service debts and pay high food import bills (generally in USD), are likely to agree to these extractivist relationships, ramping up exports of cash crops to generate foreign exchange rather than shifting towards growing staples for domestic consumption or diversifying their agriculture. This, in turn, reinforces their reliance on staple food imports in the longer term.

In the current context of the energy transition, the Global South is being positioned as a resource hub for the Global North's benefit. The European Union's push for a green economy, and the attendant scramble for North Africa's green energy, is a prime example of how the Global North

[1] Greenpeace MENA. (2022). *MENA region warming at nearly twice the global average*. Greenpeace MENA. https://www.greenpeace.org/mena/en/the-implications-of-climate-change/

seeks to dominate value chains and technologies while externalising the socio-environmental costs to peripheral countries, particularly in Africa. In both Egypt and Morocco, the enthusiasm for renewable energy investments is tempered by the extractivist nature of most investments in this sector, and the harmful implications to local populations. While substantial green hydrogen projects and renewable energy investments seem promising at first sight, they cannot fully obscure the entrenched patterns of resource extraction and consumption. This critical lens reveals that while foreign investments bring much needed foreign currency, they also perpetuate existing unfair economic structures and dependencies that challenge the sustainability of these investments. The overarching issue remains the tension between the promise of green investments and the ongoing realities of extractivist practices that continue to shape the economic landscapes of both countries.

While a global energy transition through sufficiency, efficiency, and a shift to 100% renewable energy production is urgently needed to curb rising emissions and stop the planet from heating, the transition must also be systemic and just. In practice that means that the Global North should primarily focus on decreasing demand/consumption and building renewable energy capacity domestically, before looking abroad. In the Global South, new renewable production capacity should be focused on satisfying local needs, rather than exporting renewable energy to the Global North, and projects must consider the social, environmental, and gendered impacts on local communities. Global South countries should also reject neocolonial dynamics, which perpetuate dependency on the Global North and colonial models of resource governance. There is a necessity to steer away from “green” megaprojects that only serve the interests of European states, multinational corporations, and local elites. Projects that serve the interest of the local communities and support a just transition domestically should be prioritised.

In order to overcome this imbalance, we propose sufficiency-based wellbeing economic models as a feminist alternative framework to break with this extractivist economic paradigm. This report highlights successful examples of existing alternatives mainly across the Global South. By doing so, we emphasise how local traditional practices can be leveraged to achieve a wellbeing economy and propose policy recommendations for a truly just transition.

Executive Summary

Link to report Executive Summary here. Please review.

I. The Extractivist and Neocolonial Nature of European Investments in the Global South

Neocolonial Power Dynamics

Critical literature underscores the pivotal role of slavery and colonialism in the formation of industrial capitalism in eighteenth-century England and America. The current fossil fuel-based energy system, rooted in imperialism, reinforced the West's epistemic and material dominance

over colonial states through the extraction of natural resources and the perpetuation of unequal trade relations and development disparities. A critical examination of the colonial and racialised history of the fossil fuel-based energy system reveals the colonial domination and extractivist practices that contributed significantly to the wealth of industrialised Western nations at the expense of the Global South.[2] The concept of "extractivism," having its origins in the Latin American notion of *extractivismo*,[3] was advanced as a critical lens to examine the way Global South countries' natural resources are extracted for export, prioritising short-term macro-economic profit while resulting in environmental degradation, social displacement, and economic inequalities.[4]

In today's (mostly) post-colonial–but not decolonised–world, colonial-era extractivist institutions continue to perpetuate underdevelopment by entrenching political and economic inequality, societal division, and weak property rights in post-colonial states.[5] These institutions have cemented vast regional and international inequalities within the global system, locking states and regions in unequal chains of production and consumption. Extractivism, as a mode of accumulation rooted in the colonisation of the Americas, Africa, and Asia, remains a mechanism of both colonial and neocolonial plunder.[6] This mode, driven by the demands of wealthy industrialised nations, has long specialised certain regions in the extraction and production of raw materials for export, resulting in minimal benefits for the countries concerned. Extracted resources are earmarked for exports rather than domestic use, underscoring this relationship.[7]

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[2] See for instance Andreucci, D., & Zografos, C. (2022). Between improvement and sacrifice: Othering and the (bio)political ecology of climate change. Political Geography, 92, 102512 https://doi.org/10.1016/j.polgeo.2021.102512; Galeano, E. H. (1997). *Open Veins of Latin America: Five Centuries of the Pillage of a Continent*. NYU Press; Lennon, M. (2017). Decolonizing energy: Black Lives Matter and technoscientific expertise amid solar transitions. *Energy Research & Social Science*, *30*, 18–27. https://doi.org/10.1016/j.erss.2017.06.002; McGee, J. A., & Greiner, P. T. (2020, May 6). Racial Justice is Climate Justice: Racial Capitalism and the Fossil Economy. *Hampton Institute*. https://www.hamptonthink.org/read/racial-justice-is-climate-justice-racial-capitalism-and-the-fossil-economy; Newell, P. (2021). Race and the politics of energy transitions. *Energy Research & Social Science*, *71*, 101839. https://doi.org/10.1016/j.erss.2020.101839; Verhoeven, H. (2014). Gardens of Eden or Hearts of Darkness? The Genealogy of Discourses on Environmental Insecurity and Climate Wars in Africa. *Geopolitics*, *19*(4), 784–805. https://doi.org/10.1080/14650045.2014.896794; Wretched of the Earth. (2019, May 3). An open letter to Extinction Rebellion. *Red Pepper*. https://rpdev2023.redpepper.org.uk/economics-unions-work/alternative-economies/open-letter-to-extinction-rebellion/

[3] Gudynas, Eduardo. 2021. Extractivisms: Politics, Economy and Ecology. Nova Scotia, Canada: Fernwood Publishing.

[4] See for instance Chagnon, C. W., Durante, F., Gills, B. K., Hagolani-Albov, S. E., Hokkanen, S., Kangasluoma, S. M. J., Vuola, M. P. S. (2022). From extractivism to global extractivism: the evolution of an organizing concept. The Journal of Peasant Studies, 49(4), 760–792. https://doi.org/10.1080/03066150.2022.2069015

[5] Walter Rodney, How Europe Underdeveloped Africa (East African Publishers, 1972); Daron Acemoglu, Simon Johnson, and James Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation" (Cambridge, MA: National Bureau of Economic Research, June 2000), http://dx.doi.org/10.3386/w7771; Stanley Engerman and Kenneth Sokoloff, "Factor Endowments: Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States" (Cambridge, MA: National Bureau of Economic Research, December 1994), http://dx.doi.org/10.3386/h0066.

[6] Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in Beyond Development: Alternative Visions from Latin America, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).

[7] Ibid.

The dominance of multinational corporations in these activities further exacerbates the situation by shifting the balance of power in these countries,[8] often leading to the denationalisation of economies through the privatisation of key industries and turning them over to–usually– multinational/transnational corporations.

Neocolonial structures remain central to the global system of accumulation, perpetuating inequality, dispossession, and exploitation in the Global South. While colonialism involves direct military domination of colonised states, neocolonialism represents the continuation of the subordination of former colonies through global economic and political institutions and structures. These structures, deeply rooted in colonial histories, facilitate state-corporate crimes that perpetuate violence and environmental destruction. Critical voices have highlighted the ways in which dominant development narratives that frame the Global South as backward and in need of capitalist modernisation, mask and perpetuate the systemic exploitation inherent in state-organised racialisation, gender violence, and state-corporate power dynamics.[9] Capital's domination is thus rearticulated through neocolonial power structures, intertwined with state-corporate strategies that prioritise accumulation over social and environmental justice.[10]

The historical legacy of extractivist colonial economies continues to influence the economic structures and inequalities observed in Africa today. Cash crop regions across Africa have experienced increased levels of wealth, yet this wealth has not led to broader economic differentiation or sustainable economic growth.[11] Unlike the staple-based economies of the United States and Canada, which fostered horizontal economic growth – focused on labour-intensive projects that benefit the working and middle classes–Africa's commercial agricultural production has more closely resembled the enclave economies of Latin America.[12] These economies were structured to serve European markets, with little consideration for developing domestic production linkages or fostering local economic growth.

Exacerbation of Existing Inequalities

The exacerbation of existing inequalities is a fundamental issue within the context of growth-oriented capitalist expansion, particularly in the Global South, where the transformation of market relations often reinforces and deepens social hierarchies.

Globalisation policies, driven by institutions like the World Trade Organization, the International Monetary Fund, and the World Bank, have weakened local economies in Africa. Rising commodity prices, reduced access to essential services, and aggressive land reforms have

[8]Ibid.
[9] Escobar, Arturo. Encountering Development: The Making and Unmaking of the Third World. STU-Student edition, Princeton University Press, 1995. JSTOR, http://www.jstor.org/stable/j.ctt7rtgw.
[10]Pablo Ciocchini and Joe Greener, "Mapping the Pains of Neo-Colonialism: A Critical Elaboration of Southern Criminology," The British Journal of Criminology 61, no. 6 (May 17, 2021): 1612–29, https://doi.org/10.1093/bjc/azab041.
[11]Nicolas van de Walle et al., "Extractive Colonial Economies and Legacies of Spatial Inequality: Evidence from Africa," CEPR, December 6, 2020, https://cepr.org/voxeu/columns/extractive-colonial-economies-and-legacies-spatial-inequality-evidence-africa.
[12]Ibid.

reshaped social relations,[13] leading to increased violence against women, as part of a broader cultural devaluation of women and older people.[14] These acts of violence are symptomatic of the encroachment of property-driven social relations that prioritise market interests over communal wellbeing.

Gender violence serves as a stark example of how capitalist growth is closely linked to new forms of oppression, especially against women; In many cases, these forms of violence are not merely residual effects of past cultural practices but are instead emergent properties of the evolving political economy under capitalism across the world. As capitalist expansion institutionalises neoliberal market relations in developing countries, it often does so by entrenching gendered hierarchies of inequality. The commodification of resources and labour transforms social relations, de-communalising traditional societies and monetising every aspect of life.[15] In this process, gender violence is not a peripheral issue but a central one, as it emerges from the restructuring of gendered social relations.[16] This violence is not a byproduct but rather an integral component of the new market-driven social order.

The feminisation of the global labour force, another consequence of capitalist expansion, is also closely tied to the rise in gendered violence.[17] As women increasingly become the primary labour force in low-wage, exploitative jobs, their vulnerability to various forms of subjugation and repression intensifies. For example, a majority of women working in agriculture in both Egypt and Morocco are unpaid workers, with 49.3% of women agricultural workers in Egypt working on family-owned farms in 2022.[18] Similarly, rural women's unpaid work in Morocco was valued at 7% of the GDP.[19] As unpaid labourers, women in agriculture have no access to social protection, while performing more unpaid labour in addition to their care duties. Gendered violence becomes a mechanism through which new forms of production are sustained, integrating these practices into the global capitalist logic of value creation. In this sense, gender constitutes a foundational element of the planetary system of production and reproduction.[20] The unequal system of production is deeply gendered, with women disproportionately bearing the brunt of exploitation and oppression.

The legacy of colonialism further exacerbates these inequalities, particularly in regions like Africa, where the colonial economy created a negative feedback loop of weak institutions and

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[13]Ibid.
[14]Ibid.
[15]Pablo Ciocchini and Joe Greener, "Mapping the Pains of Neo-Colonialism: A Critical Elaboration of Southern Criminology," The British Journal of Criminology 61, no. 6 (May 17, 2021): 1612–29, https://doi.org/10.1093/bjc/azab041.
[16]Ibid.
[17]Ibid.
[18]"Gender, Water and Agriculture" (FAO, July 22, 2022), https://openknowledge.fao.org/server/api/core/bitstreams/a22a1cc5-56be-42ae-8650-fc4a3535a8d1/content.
[19]Yattou Ait Khellou and Bahija Nali, "The Double Burden of Moroccan Women in Rural Areas: Domestic Work and Precarious Family Agricultural Employment," in ISI, accessed September 8, 2024, https://www.isi-next.org/abstracts/submission/632/view/.
[20]Maria Mies, Patriarchy and Accumulation on a World Scale: Women in the International Division of Labour (Bloomsbury Publishing, 2014); Nancy Fraser and Rahel Jaeggi, Capitalism: A Conversation in Critical Theory (Verso Books, 2023).

spatial inequities.[21] Colonial investments in infrastructure and agricultural processing may have produced some long-term effects touted as positive, such as urbanisation and economic agglomeration.[22] However, these benefits were unevenly distributed, often at the expense of surrounding areas, which remain worse off than pre-colonial conditions would predict.[23] The extractivist colonial economy, characterised by exploitative schemes such as the rubber plantations in the Belgian Congo, caused enduring harm to local economies and social structures.[24]

The Global Energy System: from Extractivism to Green Colonialism

The global trade in natural resources has seen a significant increase, with the value rising six-fold from $600 billion in 1998 to $3.7 trillion in 2008.[25] Despite this, governments in resource-rich countries have often struggled to collect appropriate levels of revenue due to weak or regressive tax systems, unsustainable debt burdens, and illicit financial flows, including corruption and tax evasion.[26] These challenges have been exacerbated by an overdependence on revenues from extractive industries, which has hindered efforts to diversify economies and made them vulnerable to economic shocks and price volatility.[27]

Moreover, economic gains from extractive industries have disproportionately favoured multinational corporations and national governments, largely based in the Global North, while local communities bear the environmental and social burdens.[28] These include displacement, erosion of livelihoods, and conflicts.[29] Moreover, the profits generated are often multiplied along the supply chains involved in the production of technologies like electric vehicles, wind turbines, and solar panels, which are often located in the Global North.[30] However, access to these technologies remains highly unequal, and the communities suffering the harms of extraction are frequently deprived of the benefits these technologies can bring.[31]

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[21]Nicolas Van de Walle et al., "Extractive Colonial Economies and Legacies of Spatial Inequality: Evidence from Africa," CEPR, December 6, 2020, https://cepr.org/voxeu/columns/extractive-colonial-economies-and-legacies-spatial-inequality-evidence-africa.
[22]Ibid.
[23]Ibid.
[24]Ibid.
[25]United Nations Executive Office of the Secretary-General (EOSG), "Transforming Extractive Industries for Sustainable Development," United Nations iLibrary, June 16, 2021, https://www.un-ilibrary.org/content/papers/10.18356/27082245-22.
[26]Ibid.
[27]Ibid.
[28]Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in Beyond Development: Alternative Visions from Latin America, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).
[29]Ciaran O'Faircheallaigh, Indigenous Peoples and Mining: A Global Perspective (Oxford University Press, 2023); S. Sawyer and E. Gomez, The Politics of Resource Extraction: Indigenous Peoples, Multinational Corporations and the State (Springer, 2012).
[30]Joshua Matanzima and Julia Loginova, "Sociocultural Risks of Resource Extraction for the Low-Carbon Energy Transition: Evidence from the Global South," The Extractive Industries and Society 18 (June 2024): 101478, https://doi.org/10.1016/j.exis.2024.101478.
[31]Thea Riofrancos, "From Cases to Sites: Studying Global Processes in Comparative Politics," in Rethinking Comparison: Innovative Methods for Qualitative Political Inquiry, ed. Erica S. Simmons and Nicholas Rush Smith (Cambridge University Press, 2021), 107–26, http://dx.doi.org/10.1017/9781108966009.006.

In highly masculinised industries like mining and oil extraction, women form a minority of the workforce yet are more exposed to environmental and economic hazards. They face the brunt of negative externalities, such as involuntary resettlement, loss of access to land and finance, and environmental pollution, compounded by a lack of access to healthcare. The marginalisation of women in these industries is compounded by an increase in gender-based violence. These issues are particularly severe in informal artisanal and small-scale mining sectors, where millions of women and children work under hazardous conditions, often at the expense of their education and wellbeing. This is also reflected in the lack of gender balance in policymaking for energy, where the lack of women's representation in policy leads to further marginalisation of women and their needs in the industry.[32]

The push for green hydrogen and renewable energy mainly for export purposes has introduced a new form of extractivism, often termed "green colonialism." The concept of green colonialism, which describes the continuation of colonial relations of plunder and dispossession in the era of renewable energies, underscores how the same global energy-intensive production and consumption patterns are maintained, with the socio-environmental costs displaced onto peripheral countries and communities.[33] Within this perspective, criticisms have focused on how these projects are framed as mutually beneficial for both Europe and exporting countries in the Global South, when they often exacerbate existing inequalities. For instance, green hydrogen projects in North Africa have been criticised for prioritising the needs of European markets over local populations, leading to issues like water resource depletion and energy access disparities.[34] This neocolonial approach treats North African energy and water resources as commodities for export, with little regard for the basic needs of local populations or the protection of fragile ecosystems.[35]

In other words, in the current context of the energy transition, the Global South is being positioned as a resource hub for the Global North's benefit. The European Union's push for a green hydrogen economy is a prime example of how the Global North seeks to dominate value chains and technologies while externalising the socio-environmental costs to peripheral countries, particularly in Africa.[36] This phenomenon can be understood as a new form of energy imperialism, where Africa is used as a battery for European needs, continuing the cycle of dependency and exploitation.[37]

The concept of "sacrifice zones" is particularly relevant here, as it highlights how certain areas, typically in the Global South, are designated for environmental destruction and social dislocation

[32]"Gender," UNECE, accessed September 25, 2024, https://unece.org/sustainable-energy/sustainable-resource-management/gender.
[33]Hamza Hamouchene, "The Energy Transition in North Africa: Neocolonialism Again!," in Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region, ed. Hamza Hamouchene and Katie Sandwell (Pluto Press (UK), 2023), 29–48, https://www.plutobooks.com/9780745349213/dismantling-green-colonialism/.
[34]Luca Manes, "Hydrogen Idea, False Neo-Colonial Solution," ReCommon, February 22, 2024, https://www.recommon.org/en/hydrogen-idea-false-neo-colonial-solution/
[35]Saber Ammar, "Resisting the New Green Colonialism - The Elephant," The Elephant, August 22, 2024, https://www.theelephant.info/analysis/2024/08/22/resisting-the-new-green-colonialism/.
[36]Ibid
[37]Ibid.

to sustain the consumption patterns of the Global North.[38] These zones are characterised by severe environmental degradation, poverty, and social unrest, as local populations are forced to bear the costs of a global economic system that prioritises profit over people and the planet. The creation of these sacrifice zones is a direct consequence of the extractivist logic that underpins the global capitalist system, which views nature and human lives as expendable resources to be exploited for economic gain. It is worth noting that these sacrifice zones extend beyond post-colonial states in the Global South, manifesting as racialised, gendered, and socio-economic disparities within Western states. For instance, communities of colour in the Global North have historically faced a disproportionate impact from industrialised energy production.[39] For example, people of colour in the US are systematically excluded from energy-saving initiatives; due to the higher likelihood of Black Americans being renters rather than homeowners, they are often unable to implement energy-saving measures like insulation or energy-efficient heating and cooling systems,[40] exacerbating their economic marginalisation. Additionally, mining and wind energy projects in Sweden are infringing upon the traditional land and way of life of indigenous Sámi reindeer herders.[41]

II. European investments in Morocco and Egypt

Choice of case study countries: the vicious cycle of debt and extractivism in Morocco and Egypt

While they differ in population size, governance systems, and size of natural resource endowment–with Egypt's recent gas discoveries dwarfing Morocco's hydrocarbon reserves[42] – Morocco and Egypt share key similarities. Both countries face complex climate and energy challenges that make it necessary for them to embark on a domestic green transition, while their entanglement in a deeply neocolonial and unequal financial architecture leads to the perpetuation of counterproductive policies that do not serve their economies or people.

Egypt and Morocco are net importers of energy with a high dependence on fossil fuels (which made up almost 95% of Egypt's total energy supply in 2022[43] and almost 90% of Morocco's

[38]Christos Zogravos and Paul Robbins, "Green Sacrifice Zones, or Why a Green New Deal Cannot Ignore the Cost Shifts of Just Transitions," One Earth 3, no. 5 (November 20, 2020): 543–46, https://doi.org/10.1016/j.oneear.2020.10.012.

[39] Lennon, Melvin. (2017). Decolonizing energy: Black Lives Matter and technoscientific expertise amid solar transitions. *Energy Research & Social Science*, 30, 18–27. https://doi.org/10.1016/j.erss.2017.06.002

[40] McGee, J. A., & Greiner, P. T. (2020, May 6). Racial Justice is Climate Justice: Racial Capitalism and the Fossil Economy. *Hampton Institute*. https://www.hamptonthink.org/read/racial-justice-is-climate-justice-racial-capitalism-and-the-fossil-economy

[41] Cambou, Dorothée. "Uncovering Injustices in the Green Transition: Sámi Rights in the Development of Wind Energy in Sweden." Arctic Review on Law, Politics, and Society, vol. 14, no. 2, Dec. 2020, pp. 163-181. Arctic Review Norway, https://arcticreview.no/index.php/arctic/article/view/2293/4808.

[42] Morocco's gas production reached 110 million cubic meters in 2021 according to the website of the ministry of Energy transition and sustainable development. Egypt produced 6.94bn cfd the same year, making its output 53 times higher than that of Morocco.

[43] IEA, Egypt Energy Supply, https://www.iea.org/countries/egypt/energy-mix

energy mix in 2023).[44] In addition, as evidenced by recent extreme weather events,[45] both countries are highly vulnerable to climate change, despite their lack of historical contribution to the problem, with Morocco contributing 0.2% of global greenhouse gas emissions[46] and Egypt contributing 0.73%.[47] To overcome their dependence on imported fossil fuels while tackling climate change, both Morocco and Egypt established targets for the integration of renewable energy into their energy mixes (52% by 2030 for Morocco[48] and 40%–initially 42% that was raised to 58% before being cut again–by 2035 for Egypt).[49] However, the two countries, already burdened by foreign debt, lack the financial capacity to undertake the massive infrastructure overhaul necessary to achieve their green transitions, and the only solutions provided to them by Global North countries and international financial institutions are false solutions such as debt swaps.

Indeed, Morocco's external debt reached 50% of its nominal GDP in 2022,[50] while Egypt's external debt amounted to almost 42% of its GDP in 2023[51]–with Egypt being the IMF's second largest debtor after Argentina, with an outstanding debt of $14.9B.[52] The origins of Morocco's and Egypt's external debt can be traced to their colonial and post-colonial histories, where newly independent governments inherited fragile economies reliant on resource extraction.[53] In the post-colonial period, these nations borrowed heavily to finance industrialisation and social welfare programs. However, global economic shocks in the 1970s, including rising oil prices and interest rates, led to mounting debt that both countries struggled to repay.[54] Structural adjustment programs (SAPs), which were imposed by International Financial Institutions in the 1980s and 1990s to address these crises, exacerbated the problem by pushing for more borrowing to implement reforms.[55]

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[44] IEA, Morocco Energy Mix https://www.iea.org/countries/morocco/energy-mix
[45] News Wire, France 24, "Torrential floods leave several people dead in southeastern Morocco," (9 September 2024) https://www.france24.com/en/africa/20240908-torrential-floods-kill-several-people-southeastern-morocco
[46] Cardarelli, R., & Koranchelian, T. (Eds.). (2023). "CHAPTER 7: Climate Change and Development in Morocco". In *Morocco's Quest for Stronger and Inclusive Growth*. USA: International Monetary Fund. Retrieved Oct 18, 2024, from https://doi.org/10.5089/9798400225406.071.CH007
[47] Henrique Morgado Simões and Branislav Stanicek, "International progress on climate action: Egypt's climate change policies: State of play ahead of COP27" (October 2022), European Parliament https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/738187/EPRS_BRI(2022)738187_EN.pdf
[48] Climate Action Tracker, Morocco https://climateactiontracker.org/countries/morocco/policies-action/
[49] Reuters, "Egypt Cuts 2040 Renewable Energy Target to 40%, Keeps Focus on Natural Gas," *Reuters*, October 20, 2024, https://www.reuters.com/sustainability/climate-energy/egypt-cuts-2040-renewable-energy-target-40-keeps-focus-natural-gas-2024-10-20/.
[50] CEIC, "Morocco External Debt: % of GDP" (n.d) https://www.ceicdata.com/en/indicator/morocco/external-debt--of-nominal-gdp
[51] Focu Economics, "Egypt External Debt" (n.d) https://www.focus-economics.com/country-indicator/egypt/external-debt/#:~:text=External%20Debt%20in%20Egypt,%26%20North%20Africa%20of%2026.0%25
[52] "The IMF's Top 10 Biggest Debtors," fDi Intelligence, accessed November 4, 2024, https://www.fdiintelligence.com/content/news/the-imfs-top-10-biggest-debtors-81405#
[53] Makki, Fouad. 'Post-Colonial Africa and the World Economy: The Long Waves of Uneven Development'. Journal of World-Systems Research, Feb. 2015, pp. 124–46. jwsr.pitt.edu, https://doi.org/10.5195/jwsr.2015.546.
[54] Cline, William R. International Debt Reexamined. Peterson Institute for International Economics, 1995, p. 535 Pages. Columbia University Press, https://cup.columbia.edu/book/international-debt-reexamined/9780881320831
[55] Dennis, Ella. Growth For The Few: The Impact Of Structural Adjustment Programs On Human Rights In Sub-Saharan Africa. 31 May 2022,

The neoliberal policy prescriptions imposed by SAPs forced Morocco and Egypt to prioritise the export of raw materials and natural resources, such as phosphates and agricultural products, to service external debts. Rather than fostering economic diversification, these countries became locked in a pattern of resource dependency, vulnerable to fluctuations in global commodity prices. As export revenues often fell short, external debt continued to rise, trapping both countries in a vicious cycle of debt repayment, austerity measures, and underdevelopment. This cycle perpetuated their reliance on external financing, preventing them from achieving long-term economic stability or moving beyond the extractivist models established during the colonial era.

It is estimated that Morocco will require over $120bn for its renewable energy and green hydrogen plans for climate-smart investments in the energy sector by 2030.[56] Given the dearth of climate finance, especially to the MENA region,[57] both Morocco and Egypt have sought to leverage their geographic position and historical trade relations with Europe to garner increased investments.

The landscape of foreign investments in Egypt and Morocco reveals a complex interplay of economic interests that extends beyond the superficial allure of green energy and sustainable development. While both countries have attracted substantial investment in renewable projects, the reality of these financial inflows points to a more critical situation, in which these Global South countries are locked in an extractivist relationship with Global North investors.

Egypt's Investment Landscape

In Egypt, the total volume of foreign direct investment (FDI) reached $55.5bn between FY 2016/17 and for the years 2022/2023[58] with an accumulated FDI stock of $158.7bn in 2023.[59] European investments play a pivotal role in the Egyptian economy, with the EU emerging as a significant investor, holding approximately €38.8bn of investments in 2020, representing 39% of FDI at the time.[60] In 2022, foreign investments were predominantly concentrated in the oil & gas sector, followed by financial services, manufacturing, real estate, and construction.[61]

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https://ace-usa.org/blog/research/research-foreignpolicy/growth-for-the-few-the-impact-of-structural-adjustment-programs-on-human-rights-in-sub-saharan-africa/.

[56] Manel Shehabi, "Just Energy Transitions? Lessons From Oman and Morocco" (May 2024) Carnegie Endowment for International Peace https://carnegieendowment.org/research/2024/05/morocco-oman-energy-transition-oil-exporting-renewable?lang=en

[57] Abderrahim Assab, Hala Al Hamawi, "The Road to COP28: Fueling a Green Revolution in the Middle East and North Africa by Bridging the Climate Finance Gap" (October 2023) Natural Resource Governance Institute, https://resourcegovernance.org/articles/road-cop28-fueling-green-revolution-middle-east-and-north-africa-bridging-climate-finance

[58] Amr Abu El-Ela, "Egypt Facts & Figures 2024," *General Authority for Investment and Free Zones*, 2024, https://www.investinegypt.gov.eg/flip/library/PDFs/reports/factsandfigures/Egypt%20snapshoot%20En%20(1).pdf.

[59] United Nations Conference on Trade and Development, "World Investment Report 2024: Investment Facilitation and Digital Government" (United Nations, 2024), https://unctad.org/system/files/official-document/wir2024_en.pdf.

[60] Niveen Wahish, "Egypt and the EU: A Lifetime Partnership - Economy - Al-Ahram Weekly," *Ahram Online*, January 30, 2024, https://english.ahram.org.eg/News/516885.aspx

[61] Lloyds Bank, "Foreign Direct Investment (FDI) in Egypt," International Trade Portal, July 2024, https://www.lloydsbanktrade.com/en/market-potential/egypt/investment.

Despite these substantial figures, the influx of capital is not without its controversies. The oil and gas sector, which has seen FDI inflows reach $5.6bn in FY2022/23,[62] has been a focal point of criticism. The predominance of investments in the oil and gas sector, constituting around 60% of total FDI stock,[63] alongside declining outflows ($3bn in July/December 2023/24 against $2.5bn in the previous period),[64] underscores a troubling imbalance.[65] European investments in the country are increasingly focusing on green hydrogen production for export purposes, with the recent signing of $40bn worth of renewable energy projects and primarily green hydrogen deals[66] prompting questions on the green repackaging of other extractivist investments. Combining renewable investments with increasing oil and gas investments underlines a continuation and intensification of European extractivist investments in Egypt.

Egypt's international trade dynamics further complicate the situation. The country's exports, including petroleum gas, nitrogenous fertilisers and refined petroleum, amount to significant figures, with key export partners like Turkey, Italy, the US, Spain, India, and France.[67] Both petroleum gas and refined petroleum are major export products, with substantial trade values tied to the sectors.[68] This dependence on fossil fuel exports reflects a paradox where Egypt is exporting fossil fuels while it suffers from fuel shortages for domestic consumption,[69] underlining historically unequal energy trade relations. The imports display a similar paradox, with refined petroleum and wheat being primary imports,[70] underscoring a continued dependency on energy and agricultural imports despite increased investment in both. Egypt has seen a trend of increasing exports, from $32.6bn in 2017 to $53.9bn in 2022, 28.35% of which was attributed to exports of petroleum gas, crude petroleum, and refined petroleum.[71] In FY 22/23, exports decreased to $39.6bn, reflecting the decrease in oil and gas exports by 23.1% to $13.8bn as a result of an ongoing gas shortage.[72] This was met with intensive governmental plans to further increase exports over the next six years to reach $145bn annually by 2030.[73] Coinciding with

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[62]"Press Release Balance of Payments Performance in FY 2022/2023," Central Bank of Egypt, accessed September 25, 2024, https://www.cbe.org.eg/-/media/project/cbe/page-content/rich-text/bop/october-2023/press-release-balance-of-payments-performance-of-fy-2022-2023.pdf.

[63]"Foreign Direct Investment (FDI) in Egypt," International Trade Portal (Lloyds Bank, July 2024), https://www.lloydsbanktrade.com/en/market-potential/egypt/investment.

[64]Amr Abu El-Ela, "English," *General Authority for Investment and Free Zones*, 2024, https://www.investinegypt.gov.eg/flip/library/PDFs/reports/factsandfigures/Egypt%20snapshoot%20En%20(1).pdf.

[65]"Foreign Direct Investment (FDI) in Egypt," International Trade Portal (Lloyds Bank, July 2024), https://www.lloydsbanktrade.com/en/market-potential/egypt/investment.

[66]"Egypt Signs 7 Agreements Worth $40bn for Green Hydrogen and Renewable Energy Projects," *Daily News Egypt*, February 28, 2024, https://www.dailynewsegypt.com/2024/02/28/egypt-signs-7-agreements-worth-40bn-for-green-hydrogen-and-renewable-energy-projects/

[67]"Egypt (EGY) Exports, Imports, and Trade Partners," The Observatory of Economic Complexity, accessed September 4, 2024, https://oec.world/en/profile/country/egy

[68]Ibid.

[69] "Egyptian Natural Gas: Sizable Investments, Uncertain Returns," *Alternative Policy Solutions*, July 30, 2023, https://aps.aucegypt.edu/en/articles/1153/egyptian-natural-gas-sizable-investments-uncertain-returns

[70]"Egypt (EGY) Exports, Imports, and Trade Partners," The Observatory of Economic Complexity, accessed September 4, 2024, https://oec.world/en/profile/country/egy

[71]Ibid.

[72] "External Position of the Egyptian Economy: Fiscal Year 2022/2023," Central Bank of Egypt, accessed November 4, 2024, https://www.cbe.org.eg/-/media/project/cbe/listing/research/position/external-position-82.pdf

[73] "Egypt Seeks US$145 Billion in Exports in 2030," *Egypt Independent*, April 21, 2024, https://www.egyptindependent.com/egypt-seeks-us145-billion-in-exports-in-2030/#google_vignette

increasing FDI in oil & gas, agriculture, and renewable energy, this trend accents the extractivist nature of those investments.

European Investments in Egyptian Oil & Gas Sector

Key Players

European investments in Egypt's oil & gas sector have surged, particularly after the Russia-Ukraine war. In 2023, Egypt exported 166,000 b/d of crude oil and condensate, with two-thirds going to Europe.[74] Major players include:

- **Shell (UK)**: Operates in the Western Desert and Nile Delta, holding a significant stake in the National Gas Company (NATGAS) and running the Shell Compressed Natural Gas Egypt (SCNGE) for vehicle conversions.[75]
- **Eni (Italy)**: Announced a $7.7bn investment plan in 2023,[76] adding to the $13bn invested from 2015 to 2019.[77] Eni discovered the Zohr gas field, the largest in the Mediterranean with 30 Tcf of reserves,[78] contributing 40% of Egypt's gas production in 2023.[79]
- **BP (UK)**: Operates about 60% of Egypt's gas,[80] including a dominant stake in the West Nile Delta development and a 10% interest in the Shorouk concession, including the Zohr gas field.[81]
- **TotalEnergies (France)**: Invested in offshore Mediterranean exploration alongside BP and Eni.[82]
- **Snam (Italy)**: Acquired stakes in East Mediterranean Gas Company (EMG), solidifying its position in the Arish-Ashkelon pipeline, linking Egypt and Israel.[83]

Key Projects

European investments in Egypt's oil & gas sector are marked by several critical projects.

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[74]"Egypt," U.S. Energy Information Administration (EIA), August 13, 2024, https://www.eia.gov/international/analysis/country/EGY

[75]"Who We Are," Shell Egypt, accessed September 4, 2024, https://www.shell.eg/en_eg/about-us/who-we-are.html

[76]Kamal Tabikha, "Italy's Energy Firm Eni Plans to Invest $7.7 Billion in Egypt's Energy Sector," *The National*, September 4, 2023, https://www.thenationalnews.com/business/energy/2023/09/04/italys-energy-firm-eni-plans-to-invest-77-billion-in-egypts-energy-sector/

[77]"Italian Oil Giant Eni Says Overall Investments in Egypt Total $13 Billion since 2015," *Ahram Online*, January 16, 2019, https://english.ahram.org.eg/NewsParis/321869.aspx

[78]"Zohr Natural Gas Field Project," The Arab Republic of Egypt Presidency, January 2018, https://www.presidency.eg/en/%D8%A7%D9%84%D9%85%D8%B4%D8%A7%D8%B1%D9%8A%D8%B9-%D8%A7%D9%84%D9%82%D9%88%D9%85%D9%8A%D8%A9/%D9%85%D8%B4%D8%B1%D9%88%D8%B9-%D8%AD%D9%82%D9%84-%D8%B8%D9%87%D8%B1-%D9%84%D9%84%D8%BA%D8%A7%D8%B2-%D8%A7%D9%84%D8%B7%D8%A8%D9%8A%D8%B9%D9%8A/

[79]Peter Stevenson, "Egypt's Zohr: Eni Looks To Drill Its Way Out Of Water Woes," *MEES Data Driven Middle East Oil & Gas Analysis*, April 28, 2023, https://www.mees.com/2023/4/28/oil-gas/egypts-zohr-eni-looks-to-drill-its-way-out-of-water-woes/2852fa10-e5bf-11ed-8879-35169c87243e

[80]"Egypt," bp global, accessed September 4, 2024, https://www.bp.com/en/global/corporate/what-we-do/bp-worldwide/bp-in-egypt.html

[81]Ibid.

[82]"Market Watch: Egypt," *AOW Energy*, accessed September 4, 2024, https://aowenergy.com/articles/market-watch-egypt.

[83]ReCommon, "The Egyptian Campaign: Italian 'Champions' Doing Business with the al-Sisi Regime," November 7, 2022, https://www.recommon.org/en/new-report-by-recommon-on-the-dangerous-connections-between-italy-and-egypt/

- **Exploration Agreements**: Since 2013, Egypt has signed 76 exploration agreements with international oil companies, including BP, TotalEnergies, and Eni, totaling around $15.3bnin investments.[84]
- **Zohr Gas Field**: With 30 Tcf in reserves, Zohr is a key asset for Egypt,[85] initially enabling it to become a net gas exporter.
- **Western Desert and Nile Delta**: Shell and BP lead significant projects here, contributing heavily to Egypt's energy output.[86]
- **LNG Facilities**: Egypt's liquefaction facilities have 18 bcm annual capacity,[87] crucial for exporting gas, including Israeli gas, to the EU.[88]
- **Arish-Ashkelon Pipeline**: A vital 90-km undersea pipeline that was initially built to transport gas from Egypt to Israel, but now transports Israeli gas to Egypt, reinforcing Egypt's role in the regional gas market.[89]
- **Assiut Refinery Expansion**: This project aims to boost regional oil derivative production, supported by €1.32bn in debt backed by the Italian public insurer, SACE.[90]

European Investments in Renewable Energy & Green Technologies in Egypt

European investments in Egypt's renewable energy sector have intensified over the past few years, covering a range of technologies like solar, wind, hydropower, and green hydrogen.

Key Corporate Investors

- **Siemens Gamesa (Denmark)**: Developed the 580 MW Gabal El-Zeit Wind Farm under a $9bn deal with Egypt.[91] Siemens Gamesa also won the contract to operate Gabal El-Zeit Wind Farm 2.[92]
- **EDF Energy (France, UK)**: Expanded into Egypt's solar sector through its subsidiary EDF Renewables and is part of a €7bn green hydrogen project near Hurghada.[93]
- **Scatec (Norway)**: Leading the Egypt Green Hydrogen project with a significant role in developing green hydrogen facilities.[94]

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[84]"Market Watch: Egypt," *AOW Energy* (blog), accessed September 4, 2024, https://aowenergy.com/articles/market-watch-egypt.
[85]Kamal Tabikha, "Italy's Energy Firm Eni Plans to Invest $7.7 Billion in Egypt's Energy Sector," *The National*, September 4, 2023, https://www.thenationalnews.com/business/energy/2023/09/04/italys-energy-firm-eni-plans-to-invest-77-billion-in-egypts-energy-sector/
[86]"Who We Are," Shell Egypt, accessed September 4, 2024, https://www.shell.eg/en_eg/about-us/who-we-are.html
[87]Afaf Zarkik, "Gas Crisis in Europe: A Harbinger of Sustainable Cooperation with North Africa," IAI Istituto Affari Internazionali, September 13, 2023, https://www.iai.it/en/pubblicazioni/gas-crisis-europe-harbinger-sustainable-cooperation-north-africa
[88]ReCommon, "The Egyptian Campaign: Italian 'Champions' Doing Business with the al-Sisi Regime," November 7, 2022, https://www.recommon.org/en/new-report-by-recommon-on-the-dangerous-connections-between-italy-and-egypt/
[89]Ibid.
[90]Ibid.
[91]"Mega Electricity Generating Stations," State Information Service, January 9, 2023, https://sis.gov.eg/Story/174905/Mega-Electricity-generating-stations?lang=en-us
[92]"Siemens Wants All the Wind Projects," *Enterprise*, February 22, 2021, https://enterprise.press/stories/2021/02/22/siemens-wants-all-the-wind-projects-32931/
[93]"Arab Finance - Egypt Inks €7B Green Hydrogen Deal with EDF Renewables, Zero Waste," *Arab Finance*, January 7, 2024, https://www.arabfinance.com/News/newdetails/16079
[94]"Scatec's Egypt Green Hydrogen Project Signed 20-Year Offtake Agreement with Fertiglobe, Based on H2Global Award," Scatec, July 11, 2024,

- **BP (UK)**: Partnering with Masdar and Hassan Allam Utilities for a $14bn green hydrogen project in the Suez Canal Economic Zone.[95]
- **Deme Group (Belgium)**: Investing €24bn in a green hydrogen and ammonia plant in the Port of Gargoub's industrial zone.[96]
- **Voltalia (France)**: Building green ammonia plants near Ain Sokhna port in the Suez Canal Economic Zone.[97]
- **DAI Infrastructure (Germany):** Signed a $10bn agreement for a green ammonia project in East Port Said.[98]

Key Multilateral and National Development Banks and Agencies

- European Investment Bank (**EIB)**: Signed a €271m loan for Egypt's decarbonisation and energy efficiency projects with an additional €30m grant from the EU,[99] and contributed to financing the $15bn NFWE+ program.[100] In a separate program, the EIB secured €600m for Cairo's Line 3 metro along with €300m from AFD and a €43m grant from the European Union.[101] The EIB has also supported the development of wind farms on the Gulf of Suez.[102]
- The European Bank for Reconstruction and Development (**EBRD)**: Invested €12.3bn in 185 projects,[103] including $1.1bn in Benban Solar Park and significant contributions to green hydrogen initiatives.[104]
- **European Commission**: Pledged €35m to the Energy Wealth Initiative for green hydrogen[105] and allocated €263m to the Interreg NEXT MED cooperation program.[106]

https://scatec.com/2024/07/11/scatecs-egypt-green-hydrogen-project-signed-20-year-offtake-agreement-with-fertiglobe-based-on-h2global-award/

[95]"The Egypt-EU Investment Summit Brings in a Pile of Green Hydrogen Agreements," *Enterprise*, July 1, 2024, https://enterprise.news/climate/en/news/story/4678b944-fc3c-4ae9-82b0-98d0ee09c708/the-egypt-eu-investment-summit-brings-in-a-pile-of-green-hydrogen-agreements

[96]Ibid.

[97]Ibid.

[98]Ibid.

[99]"The EU and Egypt Team up to Mobilise Private Sector Investments at Investment Conference and Sign a Memorandum of Understanding Underpinning €1 Billion in Macro-Financial Assistance for Egypt," European Commission, June 29, 2024, https://ec.europa.eu/commission/presscorner/detail/en/ip_24_3481

[100]"COP27: EIB Announces New Support for Egypt's Own Green Transition," *European Investment Bank*, November 16, 2022, https://www.eib.org/en/press/news/cop27-eib-announces-new-support-for-egypt-s-own-green-transition

[101]EIB, "Egypt: EIB Vice President Welcomes Successful Completion of Cairo Metro Line 3," *European Investment Bank*, July 4, 2022, https://www.eib.org/en/press/all/2022-304-eib-vice-president-welcomes-successful-completion-of-cairo-metro-line-3.

[102]Rania A. Al Mashat, "Egypt Puts People at the Heart of Green Economy Transition," *European Investment Bank*, December 9, 2020, https://www.eib.org/en/essays/egypt-green-transition

[103]"The EBRD in Egypt," European Bank for Reconstruction and Development, accessed September 4, 2024, https://www.ebrd.com/egypt.html

[104]Nibal Zgheib, "How the EBRD Became Egypt's Leading Partner for Renewable Energy," European Bank for Reconstruction and Development, November 4, 2022, https://www.ebrd.com/news/2022/how-the-ebrd-became-egypts-leading-partner-for-renewable-energy-.html

[105]"COP27: EU and Egypt Step up Cooperation on the Clean Energy Transition," European Commission, November 16, 2022, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6925

[106]"The EU and Egypt Team up to Mobilise Private Sector Investments at Investment Conference and Sign a Memorandum of Understanding Underpinning €1 Billion in Macro-Financial Assistance for Egypt," European Union, June 29, 2024, https://neighbourhood-enlargement.ec.europa.eu/news/eu-and-egypt-team-mobilise-private-sector-investments-investment-conference-and-sign-memorandum-2024-06-29_en

- Agence Française de Développement (**AFD)**: Committed €2.bn to sustainable infrastructure projects, focusing on green hydrogen and renewable energy.[107]

Key Projects

- **Benban Solar Park**: A $4bn project in the Aswan desert,[108] one of the largest solar power installations globally, with a total capacity of 1,465 MW.[109] The EBRD invested $1.1bn in this project.[110]
- **Gabal El-Zeit Wind Farm**: With a capacity of 580 MW, this project cost EGP 12 billion and is crucial for Egypt's wind energy strategy.[111]
- **Cairo Solar Park**: A 35.7 MW solar PV project, part of Egypt's expanding solar energy infrastructure.[112]
- **Green Hydrogen Initiatives**: Egypt has attracted $40bn in investments, with initial phases totaling $12bn.[113] Key projects include a $14bn green hydrogen project in the Suez Canal Economic Zone[114] and a €24bn green hydrogen and ammonia plant in Port of Gargoub.[115]

Strategic Partnerships and Funding

The EU-Egypt Strategic Partnership focuses on green hydrogen, with the European Commission pledging €35mto the Energy Wealth Initiative, an initiative to phase out 5,000 MW of gas power generation capacity and replace it with 10,000 MW of renewable capacity.[116] The EIB is contributing €30m in grants and €271m in loans to support Egypt's decarbonisation efforts.[117] The Nexus for Food-Water-Energy (NWFE+) Program, supported by the EBRD and Germany,

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[107]"EU-Egypt Strategic Partnership: Egypt, AFD Group and EU Join Forces to Strengthen Egypt's Food Security," AFD - Agence Française de Développement, June 30, 2024, https://www.afd.fr/en/actualites/communique-de-presse/eu-egypt-strategic-partnership-egypt-afd-group-and-eu-join-forces-strengthen-egypts-food-security

[108]"Benban Solar Park in Egypt Receives $4 Billion in Funding," *Alliance Magazine*, June 25, 2020, https://www.alliancemagazine.org/blog/benban-solar-park-egypt-4-billion-funding/

[109]Nibal Zgheib, "How the EBRD Became Egypt's Leading Partner for Renewable Energy," European Bank for Reconstruction and Development, November 4, 2022, https://www.ebrd.com/news/2022/how-the-ebrd-became-egypts-leading-partner-for-renewable-energy-.html

[110]"EBRD Finalizes Egypt's $4 B Benban Solar Power Park," Egypt Oil & Gas | Connecting The Pieces, October 29, 2019, https://egyptoil-gas.com/news/ebrd-finalizes-egypts-4-b-benban-solar-power-park/

[111]"Largest Power Plant in Gabal El Zeit," The Arab Republic of Egypt Presidency, July 2018, https://bit.ly/3ADKMMy

[112]"Power Plant Profile: Solarizegypt Cairo Solar PV Park, Egypt," *Power Technology*, July 21, 2024, https://www.power-technology.com/data-insights/power-plant-profile-solarizegypt-cairo-solar-pv-park-egypt/

[113]"Egypt Signs 7 Agreements Worth $40bn for Green Hydrogen and Renewable Energy Projects," *Daily News Egypt*, February 28, 2024, https://www.dailynewsegypt.com/2024/02/28/egypt-signs-7-agreements-worth-40bn-for-green-hydrogen-and-renewable-energy-projects/

[114]"The Egypt-EU Investment Summit Brings in a Pile of Green Hydrogen Agreements," *Enterprise*, July 1, 2024, https://enterprise.news/climate/en/news/story/4678b944-fc3c-4ae9-82b0-98d0ee09c708/the-egypt-eu-investment-summit-brings-in-a-pile-of-green-hydrogen-agreements

[115]Ibid.

[116]"COP27: EU and Egypt Step up Cooperation on the Clean Energy Transition," European Commission, November 16, 2022, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6925

[117]"EIB Global Backs €271 Million Egyptian Climate Action, Environmental Pollution and Carbon Border Business Financing Scheme," *European Investment Bank*, July 1, 2024, https://www.eib.org/en/press/all/2024-234-eib-global-backs-eur271-million-egyptian-climate-action-environmental-pollution-and-carbon-border-business-financing-scheme

focuses on critical sectors like energy, water, and agriculture, with the EIB committing to new investments.[118]

European Investments in Agriculture in Egypt

European investments in Egypt's agricultural sector have been substantial, driven by financial support, technical assistance, and private sector initiatives. The European Union (EU), individual European countries, and private companies have focused on improving agricultural techniques, infrastructure, market access, and sustainability, though often prioritising export-oriented projects.[119]

European Union's Role and Major Programs

- **EU Funding**: During the EU-Egypt Investment Conference, the EU signed a €60m grant agreement for new wheat silos under the Team Europe initiative,[120] to be implemented by AFD and the Ministry of Supply and Internal Trade. Egypt also secured €263m as part of the cross-border cooperation program for the Mediterranean Sea basin (2021-2027) to support sectors like agriculture, agri-food, energy, and sustainable tourism.[121]
- **European Investment Bank (EIB)**: The EIB has been key in funding agricultural infrastructure and productivity projects aligned with EU climate and sustainability strategies. It supported the NWFE+ program[122] and provided €150m for the €300m Egypt Food Resilience program.[123]

Specific Projects and Investment Initiatives

- **Horizon 2020**: The EU funded 51 research and innovation projects in Egypt focused on water, food, agriculture, and related fields.[124]
- **Food Security**: The EIB's €300m Egypt Food Resilience program aims to enhance cereal storage and logistics infrastructure to mitigate food shortages due to climate change or price hikes.[125] Additionally, the €60m Team Europe grant for wheat silos will expand Egypt's grain storage capacity by 420,000 tonnes, a 15% increase.[126]

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[118]"COP27: EIB Announces New Support for Egypt's Own Green Transition," *European Investment Bank*, November 16, 2022, https://www.eib.org/en/press/news/cop27-eib-announces-new-support-for-egypt-s-own-green-transition

[119]Saker El Nour, "Towards a Just Agricultural Transition in North Africa," in *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region*, ed. Hamza Hamouchene and Katie Sandwell (Pluto Press (UK), 2023).

[120]"EU-Egypt Strategic Partnership: Egypt, AFD Group and EU Join Forces to Strengthen Egypt's Food Security," AFD - Agence Française de Développement, June 30, 2024, https://www.afd.fr/en/actualites/communique-de-presse/eu-egypt-strategic-partnership-egypt-afd-group-and-eu-join-forces-strengthen-egypts-food-security

[121]"Egypt, EU Sign Four Financing Deals at €300 Mln on Sidelines of Investment Conference in Cairo - Economy - Business," *Ahram Online*, June 29, 2024, https://english.ahram.org.eg/NewsContent/3/12/526280/Business/Economy/Egypt,-EU-sign-four-financing-deals-at-%E2%82%AC-mln-on-si.aspx

[122]"COP27: EIB Announces New Support for Egypt's Own Green Transition," *European Investment Bank*, November 16, 2022, https://www.eib.org/en/press/news/cop27-eib-announces-new-support-for-egypt-s-own-green-transition

[123]"EGYPT FOOD RESILIENCE," European Investment Bank, October 13, 2022, https://www.eib.org/en/projects/all/20220523

[124]"The European Union and Egypt," Delegation of the European Union to Egypt - EEAS, July 28, 2021, https://www.eeas.europa.eu/egypt/european-union-and-egypt_en?s=95

[125]"EGYPT FOOD RESILIENCE," European Investment Bank, October 13, 2022, https://www.eib.org/en/projects/all/20220523

[126] "EU-Egypt Strategic Partnership: Egypt, AFD Group and EU Join Forces to Strengthen Egypt's Food Security," AFD - Agence Française de Développement, June 30, 2024,

Morocco's Investment Landscape

Similarly, Morocco's investment profile, with FDI stock reaching $69.3bn in 2023,[127] reveals both economic potential and challenges. The country has seen a surge in greenfield investments – a type of foreign direct investment where a company establishes operations in a foreign country – particularly in green energy and technology projects, with announced investments of up to $15bn in 2022.[128] Notably, projects such as those by Total Eren, a subsidiary of TotalEnergies, in hydrogen and green ammonia production represent significant capital inflows.[129] However, these investments also need to be critically examined against the backdrop of Morocco's broader economic structure.

There is a disconnect between renewable energy investments and local realities. Morocco's continued reliance on imported fossil fuels, while simultaneously exporting renewable energy to Europe (the amount of which has fluctuated over the past few years due to unstable energy security), highlights a similar paradox to Egypt's. The country's exports, including a wide array of products such as phosphoric acid, natural and chemical fertilisers, electricity, electronic equipment, machinery, and textiles, amounted to $46.7bn in 2022.[130] This diverse export base reflects Morocco's strategic position in global markets, with key export destinations including France, Spain, and Italy.[131] Yet, this economic activity is not without concerns. The country's heavy reliance on energy imports, particularly refined petroleum and coal briquettes,[132] illustrates an ongoing fossil fuel dependency that complicates its narrative of sustainable development. Morocco's substantial imports underline a continued imbalance in trade and stress the challenges associated with its energy and resource strategies.

European Investments in Moroccan Oil & Gas Sector

European involvement in Morocco's oil & gas sector is marked by the participation of several prominent companies, including multinational giants and specialised exploration firms.

Key Players

- **Sound Energy (UK):** Key player in the Tendrara Production Concession,[133] recently divested a majority stake to Managem SA.[134]

https://www.afd.fr/en/actualites/communique-de-presse/eu-egypt-strategic-partnership-egypt-afd-group-and-eu-join-forces-strengthen-egypts-food-security

[127]United Nations Conference on Trade and Development, "World Investment Report 2024: Investment Facilitation and Digital Government" (United Nations, 2024), https://unctad.org/system/files/official-document/wir2024_en.pdf

[128]"Foreign Direct Investment (FDI) in Morocco," International Trade Portal (Lloyds Bank, July 2024), https://www.lloydsbanktrade.com/en/market-potential/morocco/investment

[129]United Nations Conference on Trade and Development, "World Investment Report 2024: Investment Facilitation and Digital Government" (United Nations, 2024), https://unctad.org/system/files/official-document/wir2024_en.pdf

[130]"Morocco (MAR) Exports, Imports, and Trade Partners," The Observatory of Economic Complexity, accessed September 4, 2024, https://oec.world/en/profile/country/mar

[131]Ibid.

[132]Ibid.

[133]"Our Portfolio," Sound Energy Plc, accessed September 4, 2024, https://www.soundenergyplc.com/our-portfolio/our-portfolio/

[134]Rocky Teodoro, "Sound Energy Sells Assets in Morocco to Managem," *Rigzone*, June 18, 2024, https://www.rigzone.com/news/sound_energy_sells_assets_in_morocco_to_managem-18-jun-2024-177129-article/

- **Eni (Italy):** Involved in the Tarfaya Offshore Shallow block,[135] Rabat Deep Offshore, and El Jadida Offshore licenses.[136]
- **SDX Energy (UK)**: Active in the Gharb Basin with licenses in Sebou, Gharb Centre, and Lalla Mimouna Sud.[137]
- **BP (UK)**: Invested in three offshore blocks in the Agadir basin.[138]
- **Shell (UK)**: Agreed to supply Morocco with six billion cubic meters of LNG over 12 years.[139]

Key Projects

- **Nigeria-Morocco Gas Pipeline**: A major pipeline project transporting natural gas from Nigeria to Spain via Morocco.[140]
- **Maghreb-Europe Gas Pipeline**: Connects Algeria, Morocco, Spain, and Portugal;[141] recently reconfigured to transport LNG from Spain to Morocco.[142]
- **LNG Market Agreement**: Morocco entered the LNG market as an importer in 2022, with Shell providing LNG supplies through the Maghreb Europe Gas pipeline.[143]
- **El Gharb Basin**: SDX Energy's discovery of new gas reserves near Kenitra highlights Morocco's growing gas resources and adds to SDX's assets in the basin.[144]

European Investments in Renewable Energy & Green Technologies in Morocco

European investments in Morocco's renewable energy sector are extensive and reflect a strategic shift towards green energy production with maintained neocolonial power dynamics. Morocco has large ambitions for its energy export to Europe, and plans to supply 8% of the UK's power needs by 2030 through its solar and wind energy projects.[145] Recent research has found considerable risk for the perpetuation of the "resource curse" – a notion describing the tendency of resource-rich economies to underperform in terms of economic growth and development

[135]"Eni Farms out to Qatar Petroleum a 30% Participating Interest in Tarfaya Offshore Petroleum Agreement, Offshore Morocco," accessed September 25, 2024, https://www.eni.com/en-IT/media/press-release/2019/03/eni-farms-out-to-qatar-petroleum-a-30-participating-interest-in-tarfaya-offshore-petroleum-agreement-offshore-morocco.html

[136]"Eni Enters into New Exploration Permits Offshore Morocco," Eni SpA, December 20, 2017, https://www.eni.com/en-IT/media/press-release/2017/12/eni-enters-into-new-exploration-permits-offshore-morocco.html

[137]"Morocco," SDX Energy Plc, April 12, 2019, https://www.sdxenergygroup.com/operations/morocco/

[138]"Britain's BP Invests in Morocco Offshore Oil Exploration," *Al Arabiya English*, October 16, 2013, https://english.alarabiya.net/business/energy/2013/10/16/Britain-s-BP-invests-in-Morocco-offshore-oil-exploration.

[139]Aninda Chakraborty, "Shell Signs 12-Year LNG Supply Deal with Morocco," *NS Energy*, July 17, 2023, https://www.nsenergybusiness.com/industry-news/shell-lng-supply-deal-morocco/

[140]Carolyn Moorman and Chaouki Ghenai, "North African Renewable Energy Possibilities for Europe ," *New Lines Institute*, December 21, 2023, https://newlinesinstitute.org/geo-economics/north-african-renewable-energy-possibilities-for-europe/

[141]Francis Ghilès, "Escalating Rivalry between Algeria and Morocco Closes the Maghreb-Europe Pipeline," CIDOB, November 2021, https://www.cidob.org/en/publication/escalating-rivalry-between-algeria-and-morocco-closes-maghreb-europe-pipeline

[142]"Morocco - Energy," International Trade Administration, January 1, 2024, https://www.trade.gov/country-commercial-guides/morocco-energy

[143]Ibid.

[144]Raúl Redondo, "New Natural Gas Reserve Discovered in Morocco," *Atalayar*, October 4, 2023, https://www.atalayar.com/en/articulo/economy-and-business/new-natural-gas-reserve-discovered-in-morocco/20231004114227191839.html

[145]Jonathan Josephs, "Can Morocco Solve Europe's Energy Crisis?," BBC News, May 3, 2023, https://www.bbc.com/news/business-65415529

outcomes – in Morocco through the development of renewable energy for exports.[146] The EU-Moroccan Green Partnership launched in 2022, saw €165m invested in its first two projects.[147]

Key Multilateral and National Development Banks and Agencies

- **EIB**: Between 2017 and 2022, the European Investment Bank allocated 20% of its total €2.5bn financing to renewable energy and 19% to sustainable transport (e.g. to the national railways) in Morocco.[148] In 2022, it doubled its annual disbursement to €381m to Morocco's economy, €222m of which was for sustainable and low-carbon mobility.[149]
- **EBRD**: The European Bank for Reconstruction and Development has invested $1.7 billion in Morocco since 2012, with $148m in the energy sector,[150] including the Khalladi Wind Farm.[151]
- **AFD**: The French Development Agency has committed €5.6bn since 1992, supporting solar and wind projects,[152] including Noor Midelt.[153]
- **KfW**: The German Development Bank invested €60m in the NOORo IV solar power plant[154] and up to €300m in green hydrogen facilities.[155]
- **Spain and Netherlands**: Spain plans to invest €45bn by 2050 in renewables, transport, and water management.[156] The Netherlands committed €300m to green energy projects.[157]

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[146] Alycia Leonard et al., "Renewable Energy in Morocco: Assessing Resource Curse Risks," *Renewable and Sustainable Energy Reviews* 192 (March 2024): 114210, https://doi.org/10.1016/j.rser.2023.114210

[147]"A Common Green Horizon: Exploiting the Full Potential of the EU-Morocco Green Partnership - FACTSHEET: EU-Morocco Energy Relations," European Institute of the Mediterranean, October 27, 2023, https://www.iemed.org/wp-content/uploads/2023/10/Fact-sheet-EU-Morocco-Green-Partnership-Factsheet-1-CLEAN-2-YS.pdf

[148]EIB, "EIB Global in Morocco: Large-Scale Investment of €2.5 Billion with a Private Sector Focus," *European Investment Bank*, February 22, 2023, https://www.eib.org/en/press/all/2023-067-eib-global-in-morocco-large-scale-investment-of-eur2-5-billion-with-a-private-sector-focus

[149]Ibid.

[150]"A Common Green Horizon: Exploiting the Full Potential of the EU-Morocco Green Partnership - FACTSHEET: EU-Morocco Energy Relations," European Institute of the Mediterranean, October 27, 2023, https://www.iemed.org/wp-content/uploads/2023/10/Fact-sheet-EU-Morocco-Green-Partnership-Factsheet-1-CLEAN-2-YS.pdf.

[151]Ibid.

[152]"Morocco," AFD - Agence Française de Développement, accessed September 4, 2024, https://www.afd.fr/en/page-region-pays/morocco.

[153]Hamza Hamouchene, "The Energy Transition in North Africa: Neocolonialism Again!," in *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region*, ed. Hamza Hamouchene and Katie Sandwell (Pluto Press (UK), 2023), 29–48, https://www.plutobooks.com/9780745349213/dismantling-green-colonialism/.

[154]"Morocco Pioneers the Energy Transition," KfW Development Bank, April 3, 2017, https://www.kfw-entwicklungsbank.de/About-us/News/Pressemitteilungen-Details_407296.html.

[155]"Energy of the Future," KfW Development Bank, January 2024, https://www.kfw-entwicklungsbank.de/Global/North-Africa-and-Middle-East/Project-information_Morocco_Hydrogen_2024/.

[156]Sorin-Andrei Dojan, "Spain Plans to Invest €45bn in Morocco by 2050," *Investment Monitor*, February 22, 2024, https://www.investmentmonitor.ai/news/spain-plans-to-invest-45bn-euros-in-morocco-by-2050/.

[157]Sara Zouiten, "Morocco, Netherlands Launch €300 Million Investment Fund for Green Initiatives," *Morocco World News*, June 22, 2023, https://www.moroccoworldnews.com/2023/06/356075/morocco-netherlands-launch-euro-300-million-investment-fund-for-green-initiatives.

Key Projects

- **Noor Ouarzazate Solar Complex**: The world's largest concentrated solar power plant, funded with $1.6bn in loans from European and international entities, including the EIB, KfW, and AFD.[158] The total project cost was $2.5bn.[159]
- **Green Hydrogen**: TotalEnergies invested $10.6bn in a green hydrogen and ammonia plant in Guelmim-Oued Noun, with production starting in 2027.[160] Germany has committed up to €300m in green hydrogen facilities.[161]
- **Wind and Solar**: Morocco aims to add 7 GW of renewable energy by 2027, with European support.[162] Projects include a wind-powered desalination plant near Dakhla, with €189m in funding,[163] and a $9bn Moroccan Solar Plan for 2 GW of solar capacity.[164]
- **Green Energy Infrastructure and electricity interconnection cables**: The Xlinks Morocco-UK Power Project, a $30bn endeavor,[165] aims to supply up to 11.5 GW of zero-carbon electricity to the UK via subsea cables.[166]

European Investments in Agriculture in Morocco

European investments in Morocco's agricultural sector have grown significantly, driven by trade agreements, private initiatives, and development programs. These investments, often focused on export-oriented projects,[167] include contributions from various European stakeholders.

[158]"Morocco: Noor Ouarzazate Concentrated Solar Power Complex," *Multilateral Development Banks' Collaboration: Infrastructure Investment Project Briefs* (World Bank Group, March 2017), https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-02/MoroccoNoorQuarzazateSolar_WBG_AfDB_EIB.pdf.
[159]"Noor - Ouarzazate Solar Power Station," Ouarzazate City, April 1, 2020, https://ouarzazate.city/noor-ouarzazate-solar-power-station/.
[160]César Augier et al., "Green Energy in Africa Presents Significant Investment Opportunities," *McKinsey & Company*, October 17, 2023, https://www.mckinsey.com/capabilities/sustainability/our-insights/green-energy-in-africa-presents-significant-investment-opportunities.
[161]Carolyn Moorman and Chaouki Ghenai, "North African Renewable Energy Possibilities for Europe ," *New Lines Institute*, December 21, 2023, https://newlinesinstitute.org/geo-economics/north-african-renewable-energy-possibilities-for-europe/.
[162]Margarita Arredondas, "Morocco Expects an Increase in Green Energy Investments in the Coming Years," *Atalayar*, January 27, 2024, https://www.atalayar.com/en/articulo/economy-and-business/morocco-expects-an-increase-in-green-energy-investments-in-the-coming-years/20240127060000196042.html.
[163]"Engie, Navera Partner to Build Wind-Powered Desalination Plant in Morocco," IDRA | The Global Desalination and Water Reuse Community, June 29, 2022, https://idadesal.org/engie-navera-partner-to-build-wind-powered-desalination-plant-in-morocco/.
[164]"Power Sector Transition in Morocco," Global Energy Monitor, June 28, 2024, https://www.gem.wiki/Power_Sector_Transition_in_Morocco.
[165]Jihane Rahhou, "Xlink's Morocco-UK Green Power Project Could Soar to $30 Billion," *Morocco World News*, April 16, 2024, https://www.moroccoworldnews.com/2024/04/362096/xlinks-morocco-uk-green-power-project-could-soar-to-30-billion.
[166]"Morocco-UK Power Project," Xlinks, September 17, 2021, https://xlinks.co/morocco-uk-power-project/.
[167]Hamza Hamouchene, "Challenging Agribusiness and Building Alternatives in Tunisia and Morocco," Siyada Network, July 17, 2020, https://en.siyada.org/siyada-board/research-and-publications/challenging-agribusiness-and-building-alternatives-in-tunisia-and-morocco/.

Major Investors and Contributions (by Country)

- **French Investments**: French companies, like Danone, hold a 67% stake in Centrale Laitiere, Morocco's largest dairy products manufacturer.[168] The French Development Agency (AFD) funded a €380,000 research project on climate and agriculture (2019-2023)[169] and pledged €80m for sustainable agriculture in 2023.[170]
- **Dutch Investments**: In 2023, the Netherlands and Morocco established a €300m investment fund for agriculture, infrastructure, water, and renewable energy.[171] Of this, 35% is a grant, and the remainder is a loan.[172]
- **Spanish Investments**: Spain, one of Morocco's main export destinations, has invested in desalination and water purification plants in Morocco.[173]
- **European Commission**: In 2022, the Commission approved a €115m "Terre Verte"[174] program.
- **European Investment Bank (EIB)**: The EIB provided €100m for Morocco's "Forests of Morocco" strategy, aiming to restore 600,000 hectares of forest and create 27,500 jobs.[175] Additionally, the EIB's Agro-Food Programme proposed €25m as part of a €69m package to develop grain storage facilities and chicken broiler farms.[176]

Key Projects and Investment Breakdown

- **Plan Maroc Vert (PMV)**: Launched in 2008, PMV aimed to restructure Morocco's agricultural sector, increasing its GDP contribution from 65 billion MAD in 2007 to 111 billion MAD in 2016.[177] PMV set out to increase the value of export-focused crops fivefold by reallocating land from staple cereal production to more profitable alternatives,

[168]"Danone Increases Stake in Moroccan Unit for $686m," *MEED*, June 28, 2012, https://www.meed.com/danone-increases-stake-in-moroccan-unit-for-686m/.
[169]"GEMMES Morocco: Analyzing the Impacts of Different Climate Scenarios on Moroccan Agriculture," AFD - Agence Française de Développement, accessed September 5, 2024, https://www.afd.fr/en/carte-des-projets/gemmes-morocco-analyzing-impacts-different-climate-scenarios-moroccan-agriculture.
[170]"MOROCCO: AFD Pledges €80M to Support Sustainable Agriculture against Climate Change," *Afrik 21*, December 1, 2023, https://www.afrik21.africa/en/morocco-afd-pledges-e80m-to-support-sustainable-agriculture-against-climate-change/.
[171]Sara Zouiten, "Morocco, Netherlands Launch €300 Million Investment Fund for Green Initiatives," *Morocco World News*, June 22, 2023, https://www.moroccoworldnews.com/2023/06/356075/morocco-netherlands-launch-euro-300-million-investment-fund-for-green-initiatives.
[172]Ibid.
[173]Ana López , "Morocco Floods Europe with Its Agricultural Products," *Atalayar*, May 22, 2023, https://www.atalayar.com/en/articulo/economy-and-business/morocco-floods-europe-with-its-agricultural-products/20230518174545184976.html.
[174]"EU-Morocco Green Partnership: Commission Adopts a Key Programme to Support the Agricultural and Forestry Sectors in Morocco," European Commission, October 25, 2022, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6362.
[175]"Morocco: EIB Global Mobilises €100 Million for Inclusive and Sustainable Forests," *European Investment Bank*, December 28, 2023, https://www.eib.org/en/press/all/2023-558-maroc-bei-monde-100-millions-forets-inclusives-durables.
[176]"AGRO-FOOD PROGRAMME MOROCCO," European Investment Bank, December 23, 2019, https://www.eib.org/en/projects/all/20190010.
[177]Cynthia Gharios and Mohammed Mehdi, "Investments in the Agricultural Sector in Morocco," *Athimar*, May 7, 2019, https://www.athimar.org/articles/details/investments-in-the-agricultural-sector-in-morocco.

promoting agricultural investment, and removing property rights restrictions.[178] By 2017, the investment budget reached 75 billion MAD.[179]

- **Green Generation Plan 2020-2030**: This plan focuses on modernising agriculture, increasing production, improving incomes, and reducing water consumption.[180]
- **Export Growth**: Morocco became the world's third-largest tomato exporter in 2022, with exports increasing by 7%.[181] The EU, Morocco's top trade partner, handled €43bn in goods trade in 2021, with Moroccan agricultural exports to the EU totaling €1.25bn, particularly in fruits and vegetables.[182]

Strategic Partnerships and Funding

The EU-Morocco Association Agreement and other trade deals have boosted agricultural trade and investments, lifting tariffs on EU-Moroccan trade over 12 years and providing duty-free access for specific agricultural products.[183] EIB Global, with over 40 years of partnership with Morocco, has significantly financed the agricultural sector.

III. The negative impacts of extractivist European investments on Morocco and Egypt

As stated in a previous section, European investments in North Africa often follow an extractivist model, exploiting natural resources while failing to ensure sustainable development. The growth models that dominate much of the Global South – exported from the Global North – particularly those driven by extractive industries, have far-reaching environmental and social consequences. These models, which prioritise rapid economic gains through the exploitation of natural resources, often result in significant environmental degradation and social dislocation, perpetuating cycles of poverty, inequality, and conflict.

These investments capitalise on the economic vulnerabilities of these countries, particularly their cyclical debt dependency. This extractivist model is fueled by Europe's commitment to an infinite growth mentality, where the focus is on externalising the environmental and social costs of their consumption rather than reducing energy demand. Within this framework, instead of shifting toward a more sustainable lifestyle, European nations are externalising the climate costs of their energy-intensive lifestyles onto the Global South. From this perspective, Europe's green

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[178]Hamza Hamouchene, "Challenging Agribusiness and Building Alternatives in Tunisia and Morocco," Siyada Network, July 17, 2020, https://en.siyada.org/siyada-board/research-and-publications/challenging-agribusiness-and-building-alternatives-in-tunisia-and-morocco/

[179]Ibid.

[180]Ana López , "Morocco Floods Europe with Its Agricultural Products," *Atalayar*, May 22, 2023, https://www.atalayar.com/en/articulo/economy-and-business/morocco-floods-europe-with-its-agricultural-products/20230518174545184976.html

[181]José Ángel Pedraza, "Morocco's Tomato Exports Reach Record Figures in 2023," *Atalayar*, September 24, 2023, https://www.atalayar.com/en/articulo/economy-and-business/moroccos-tomato-exports-reach-record-levels-in-2023/20230919124042191108.html

[182]Ana López , "Morocco Floods Europe with Its Agricultural Products," *Atalayar*, May 22, 2023, https://www.atalayar.com/en/articulo/economy-and-business/morocco-floods-europe-with-its-agricultural-products/20230518174545184976.html

[183]"Morocco - Trade Agreements," International Trade Administration | Trade.gov, accessed September 25, 2024, https://www.trade.gov/country-commercial-guides/morocco-trade-agreements

transition increasingly appears to be a facade of sustainability – more greenwashing than a sincere commitment to fostering sustainable development in the Global South. By prioritising its own energy security, Europe effectively undermines the wellbeing and environmental resilience of the very countries it claims to support, entrenching exploitative dynamics rather than advancing a truly equitable and just transition. This hypocrisy became evident during the energy crisis triggered by the 2022 Russia-Ukraine conflict. When Russia cut 80 billion cubic meters of pipeline gas to Europe, it thrust the continent into an urgent energy crisis.[184] In response, European nations scrambled to secure gas supplies from African and Middle Eastern countries.[185] This response underscores that the primary concern of Europe is energy security rather than green transition.[186] The energy transitions of post-colonial states were consequently disrupted by this shift in European priorities, exposing the double standards of Western powers. While they outwardly champion global efforts to reduce fossil fuel dependence, they simultaneously deepen their reliance on oil and gas to secure their own economic interests, derailing African countries' diversification plans while subjecting them to the environmental and social costs of European consumerism.[187]

Environmental and Social Impacts of Extractive Industries

Extractive industries, such as the mining and oil & gas sectors are notorious for their detrimental impacts on both the environment and local communities. These industries often operate with minimal regard for environmental protection, leading to severe consequences for ecosystems and human health. As Izarali explains, this practice results in significant pollution, contributing to air and water contamination, while simultaneously depriving local populations from long term potential economic benefits.[188] In the case of Egypt, the country is increasing its domestic use of dirty fuels such as mazut – a blend of heavy hydrocarbons containing toxins like sulfides and heavy metals – with a view to freeing up more gas for export to Europe.[189]

Environmental and Socio-Economic Impacts of gas overdilling

The environmental impact of gas overdrilling is significant and multifaceted, and extends beyond production declines, affecting the broader environment and local communities. The environmental impacts of oil and gas drilling operations include soil degradation and

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[184] IEA. (n.d.). *Russia's War on Ukraine – Topics*. IEA, https://www.iea.org/topics/russias-war-on-ukraine

[185] Shafi, N. (2022, July 22). How the Ukraine war exposed Europe's derailed energy transition and its hypocrisy toward the Middle East. *Middle East Institute*. https://www.mei.edu/publications/how-ukraine-war-exposed-europes-derailed-energy-transition-and-its-hypocrisy-toward

[186] Christou, O., & Adamides, C. (2013). Energy securitization and desecuritization in the New Middle East. Security Dialogue, 44(5–6), 507–522. https://doi.org/10.1177/096701061349978

[187] Shafi, N. (2022, July 22). How the Ukraine war exposed Europe's derailed energy transition and its hypocrisy toward the Middle East. *Middle East Institute*. https://www.mei.edu/publications/how-ukraine-war-exposed-europes-derailed-energy-transition-and-its-hypocrisy-toward

[188] M. Raymond Izarali, "Human Rights and State-Corporate Crimes in the Practice of Gas Flaring in the Niger Delta, Nigeria," *Critical Criminology* 24, no. 3 (November 12, 2015): 391–412, https://doi.org/10.1007/s10612-015-9300-9.

[189] Sebastian Rodriguez, 'Egypt Is Burning Dirtier Fuel to Sell More Gas to Europe', Climate Home News, 2022 <https://www.climatechangenews.com/2022/11/15/complete-contradiction-cop27-host-egypt-dirty-fuels-sell-more-gas-to-europe/>

contamination of ground water sources through “produced water”.[190] The disruption of geological formations due to overdrilling by gas and oil companies has led to soil erosion and contamination in areas like Ras Ghareb, polluting the water.[191] The contamination of water sources by gas exploration outfits can have detrimental effects on health, land, water, local ecosystems, and biodiversity.[192] The environmental degradation resulting from gas drilling operations has had direct health implications for local populations.[193] Increased pollution and contamination of water and natural resources have been linked to respiratory problems, waterborne diseases, and other health issues.[194] The lack of adequate environmental safeguards and mitigation measures may have exacerbated these health risks.

Economic Impacts and the "Dutch Disease"

Countries that specialise in the export of primary commodities often fall victim to the "Dutch disease," a phenomenon where the discovery of valuable natural resources leads to an export boom, but also a swift decline in the production of other tradable goods.[195] As a result, these countries become overly dependent on the financial markets, exposing their economies to erratic fluctuations in global prices. The high profit margins associated with extractive industries encourage overproduction when market prices are high, but this also creates a dependence on volatile financial markets.[196] Consequently, national economic activities are vulnerable to sudden downturns, leading to widespread economic instability. For instance, the 2019 COVID-19 pandemic and the collapse in oil prices exacerbated fiscal challenges for hydrocarbon-dependent MENA economies, including Egypt, straining public spending and reducing oil and gas export revenues, leading to economic crises.[197] Additionally, the Russia-Ukraine war has had pronounced impacts on the Egyptian economy due to Egypt’s wheat dependency.

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[190]John Pichtel, “Oil and Gas Production Wastewater: Soil Contamination and Pollution Prevention,” Applied and Environmental Soil Science 2016 (2016): 1–24, https://doi.org/10.1155/2016/2707989.
[191]Sarah Samir, “Reducing Groundwater Contamination in the Egyptian Oil and Gas Sector,” Egypt Oil & Gas, November 8, 2018, https://egyptoil-gas.com/features/reducing-groundwater-contamination-in-the-egyptian-oil-and-gas-sector/.
[192]Numan Hossain, Farhad Howladar, and Abu Bakkar Siddique, “A Comprehensive Evaluation of the Contamination Scenario and Water Quality in the Gas Fields of North-East Region, Bangladesh,” Heliyon 10, no. 15 (August 15, 2024), https://doi.org/10.1016/j.heliyon.2024.e34323; Alexandre Brutelle and Osama AlSayyad, “Flared Shores: Egypt’s Unregulated Flaring along the Mediterranean Shoreline,” *Daraj*, August 1, 2023, https://daraj.media/en/flared-shores-egypts-unregulated-flaring-along-the-mediterranean-shoreline/.
[193]Alexandre Brutelle and Osama AlSayyad, “Flared Shores: Egypt’s Unregulated Flaring along the Mediterranean Shoreline,” *Daraj*, August 1, 2023, https://daraj.media/en/flared-shores-egypts-unregulated-flaring-along-the-mediterranean-shoreline/.
[194]“Oil & Gas Health Effects,” Earthworks, December 12, 2017, https://earthworks.org/issues/oil-and-gas-health-effects/; “#BurningSkies: The Environmental and Human Toll of Egypt’s Energy Decisions,” *Daraj*, September 30, 2024, https://daraj.media/en/burningskies-the-environmental-and-human-toll-of-egypts-energy-decisions/.
[195]Claudine Sigam and Leonardo Garcia, “Extractive Industries: Optimizing Value Retention in Host Countries,” *UNCTAD*, 2012, https://unctad.org/system/files/official-document/suc2012d1_en.pdf.
[196]Ibid.
[197] Hanen Keskes, ‘How Cheap Oil and the Pandemic Threaten Economies and the Energy Transition in the Middle East and North Africa’, Natural Resource Governance Institute, 2020 <http://resourcegovernance.org/articles/how-cheap-oil-and-pandemic-threaten-economies-and-energy-transition-middle-east-and-north>

Social Dislocation, Displacement, and Environmental Injustice

The social dislocation caused by extractive industries is profound. In many regions, the arrival of multinational corporations leads to the displacement of local populations, the destruction of traditional livelihoods, and the breakdown of social cohesion. The influx of expatriate workers and the intense utilisation of local resources often lead to crowding out in services and conflicts with local communities, who are left to bear the brunt of environmental degradation and social disruption.[198] Furthermore, indigenous communities who live on communal rather than private land are often displaced for the sake of megaprojects, as is the case in Morocco with some renewable energy projects. In the case of oil & gas industries, improper planning and management of resources can lead to pollution, deforestation, and the destruction of other economic activities such as fishing and tourism.[199]

The environmental and social costs of energy projects are further compounded by the fact that these industries typically create a limited number of jobs for local communities. For instance, extractive industries are capital-intensive and rely heavily on foreign technology and expertise, leaving local populations with few opportunities for employment.[200] The jobs that are created are often low-paying and precarious, with workers subjected to poor working conditions and inadequate safety measures.[201] This leads to a situation where the economic benefits of extractive activities are concentrated in the hands of a few, while the broader population is left to suffer the environmental and social fallout. A similar trend can be observed in renewables, which, even in the case of large scale projects, do not lead to significant job creation opportunities for highly skilled workers or to horizontal economic linkages. For instance, The Noor Solar Plant in Ouarzazate, Morocco, one of the world's largest concentrated solar power facilities, generated 1,000 jobs during its construction phase but only 60 permanent positions for operations and maintenance across the project's life cycle.[202]

The Green Hydrogen and Renewable Energy Paradox

The push for renewable energy, often touted as a solution to the environmental impacts of extractive industries, is not without its own set of challenges. The establishment of wind and solar farms feeding the grid or green hydrogen production facilities, for example, requires vast terrestrial and maritime areas, leading to conflicts with local livelihood activities.[203] In regions characterised by power asymmetries, land tenure insecurity, and deep historical legacies of injustice, such projects can exacerbate social exclusion, usurp community territories, and deepen socio-environmental vulnerabilities.[204]

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[198]Claudine Sigam and Leonardo Garcia, "Extractive Industries: Optimizing Value Retention in Host Countries," *UNCTAD*, 2012, https://unctad.org/system/files/official-document/suc2012d1_en.pdf.
[199]Ibid.
[200]United Nations Executive Office of the Secretary-General (EOSG), "Transforming Extractive Industries for Sustainable Development," United Nations iLibrary, June 16, 2021, https://www.un-ilibrary.org/content/papers/10.18356/27082245-22.
[201]Ibid.
[202] Alexander P Martin, 'Grid and Bear It: Tunisia's Trans-Mediterranean Electrical Interconnection Megaprojects', in Renewable Energy and Electricity Interconnection Megaprojects in North Africa: Prospects for Euro-North Africa Cooperation (Euromesco, 2024), pp. 68–91.
[203]Christian Brannstrom and Adryane Gorayeb, "Alternative Policy Solutions," *Social Challenges of Green Hydrogen in the Global South*, July 26, 2022, https://aps.aucegypt.edu/en/articles/802/social-challenges-of-green-hydrogen-in-the-global-south.
[204]Ibid.

The production of green hydrogen in Morocco serves as a stark example of how European investments can be both detrimental and extractivist in nature. Despite Morocco's pressing need for a domestic green energy transition, the country's green hydrogen initiatives are largely export-oriented, designed to fuel Europe's energy demands rather than addressing local needs by aiming to position the country as a hub serving mostly European markets.[205] This approach diverts renewable energy that could have been harnessed to meet Morocco's own electricity requirements and reduce the country's reliance on imported fossil fuels.

Export-oriented green hydrogen production in Morocco is also diverting other key resources from agriculture and other industries. For instance, the country has dedicated one million hectares of land to its green hydrogen projects.[206] Similarly, it is estimated that the production of Morocco's planned green hydrogen outputs will require 92 million cubic meters of water.[207] This has raised criticisms, as, according to the World Resources Institute, Morocco is facing high water stress, ranking 27th in the WRI's national water stress ranking.[208] While these criticisms were placated through the announced plans for the construction of desalination plants dedicated to the production of green hydrogen, this has raised additional concerns about the impact of desalination on water resources and the environment in largely desert and semi-desert countries like Morocco and Tunisia.[209] Indeed, water desalination technologies are expensive and energy-intensive. Furthermore, desalination processes can cause severe environmental harm, particularly to marine and coastal ecosystems, due to the discharge of concentrated brine. This environmental strain is even more intense when desalination plants are powered by fossil fuels, given their high energy consumption.[210] Additionally, the use of desalinated water for the electrolysis process required for green hydrogen production does not account for the potable water used to clean and cool down the solar panels which produce the renewables powering green hydrogen production.[211] The diversion of water resources for industrial use risks exacerbating social instability, particularly in regions where access to water is already a sensitive issue.

Ultimately, these green hydrogen ventures reflect Europe's broader strategy of externalising the climate costs of its energy consumption. Rather than reducing its own energy use, Europe is shifting the environmental burden onto Morocco, exploiting its natural resources without

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[205] MASEN, 'Offre Maroc Hydrogène Vert' <https://www.masen.ma/en/green-hydrogen-moroccan-offer> [accessed 23 October 2024].
[206] Reuters, 'Morocco to Dedicate 1 Mln Hectares to Green Hydrogen Projects', Reuters, 11 March 2024 <https://www.reuters.com/sustainability/morocco-dedicate-1-mln-hectares-green-hydrogen-projects-2024-03-11/>
[207] Ali Amouzai and Ouafa Haddiou, Green Hydrogen in Morocco: Just Transition or Greenwashing Neocolonialism? (Transnational Institute, October 2023) <https://www.tni.org/en/publication/green-hydrogen-in-morocco-just-transition-or-greenwashing-neocolonialism>
[208] Samantha Kuzma, Liz Saccoccia, and Marlena Chertock, '25 Countries, Housing One-Quarter of the Population, Face Extremely High Water Stress', World Resources Institute, 2023 <https://www.wri.org/insights/highest-water-stressed-countries>
[209] Luca Manes, "Hydrogen Idea, False Neo-Colonial Solution," ReCommon, February 22, 2024, https://www.recommon.org/en/hydrogen-idea-false-neo-colonial-solution/
[210] Matt Simon, 'Desalination Is Booming. But What About All That Toxic Brine?', Wired, 2019 <https://www.wired.com/story/desalination-is-booming-but-what-about-all-that-toxic-brine/>
[211] Oumaima Jmad, 'À Tasselmante, les femmes démystifient l'énergie solaire', in Maroc : justice climatique, urgences sociales (En toutes lettres, 2021), pp. 189–205, doi:10.3917/etl.houda.2021.01.0189.

contributing meaningfully to the country's sustainable development. This dynamic entrenches extractivist neocolonial structures, where Europe's energy security and economic interests take precedence over Morocco's environmental wellbeing and social progress.

The Impacts of Unsustainable Agricultural Models

The extractivist model is prevalent in large-scale agricultural developments across the Global South. The unsustainability of current agricultural models is one of the most pressing global challenges, presenting a multifaceted crisis that compounds environmental degradation, social inequities, and economic vulnerabilities.

European investments in Moroccan and Egyptian agriculture are no exception and are largely concentrated in agribusiness projects focused on export-driven production. Morocco, for example, exports half of its agricultural product to Europe.[212] Agriculture is a vital sector in both countries, contributing significantly to GDP and serving as a key source of employment, particularly in rural areas where it often sustains local economies. However, this heavy focus on export crops, particularly those destined for European markets, has led to significant social, economic, and environmental consequences.

The globalisation of agriculture, driven by trade liberalisation and the demands of global markets, has also led to the degradation of local ecosystems in developing countries. These countries often have weaker environmental regulations, attracting more foreign investments and allowing for more intensive and environmentally harmful agricultural practices.[213] This has resulted in a situation where the environmental impacts of agriculture—such as the depletion of water resources, deforestation, and biodiversity loss—are felt in regions far from the consumers of these agricultural products.[214]

Temporary environmental destruction is often accepted as the inevitable cost of achieving development in these regions. This mindset ignores the long-term consequences of such practices. As the scale of extraction increases, even so-called renewable resources, such as forests and soil fertility, are becoming non-renewable.[215] This occurs when the rate of extraction far exceeds the rate at which the environment can renew these resources, leading to permanent depletion.[216] The environmental costs of these practices are often borne by the most vulnerable populations, who are least responsible for the demand that drives them. The history of

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[212]Said Oulfakir, "In Morocco: Fruitful Land for Large-Scale Farms and Erratic Rainfall for Small Farmers," *Assafir Arabi*, September 16, 2022, https://assafirarabi.com/en/47507/2022/09/16/in-morocco-fruitful-land-for-large-scale-farms-and-erratic-rainfall-for-small-farmers/

[213]Panxian Wang, Zimeng Ren, and Guanghua Qiao, "How Does Agricultural Trade Liberalization Have Environmental Impacts? Evidence from a Literature Review," *Sustainability* 15, no. 12 (June 10, 2023), https://doi.org/10.3390/su15129379; Judith M. Dean, Mary E. Lovely, and Hua Wang, "Are Foreign Investors Attracted to Weak Environmental Regulations? Evaluating the Evidence from China," *Journal of Development Economics* 90, no. 1 (September 2009): 1–13, https://doi.org/10.1016/j.jdeveco.2008.11.007

[214]Panxian Wang, Zimeng Ren, and Guanghua Qiao, "How Does Agricultural Trade Liberalization Have Environmental Impacts? Evidence from a Literature Review," *Sustainability* 15, no. 12 (June 10, 2023), https://doi.org/10.3390/su15129379

[215]Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in *Beyond Development: Alternative Visions from Latin America*, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).

[216]Ibid.

extractivism in many regions of the Global South is a testament to this destructive cycle, where short-term economic gains are prioritised over the sustainability of natural resources, leading to widespread poverty, recurrent economic crises, and the weakening of democratic institutions.[217] The agricultural sector's significant contribution to global greenhouse gas emissions, which accounts for approximately 22% of total emissions, further underscores the unsustainability of current practices.[218]

In North Africa, the promotion of large-scale, industrial agriculture has led to the overexploitation of land and water resources, resulting in significant environmental degradation.[219] This includes the depletion of groundwater resources, soil erosion, and the loss of biodiversity, all of which undermine the long-term sustainability of agricultural production in the region.[220]

Case Study I: A Critical Examination of Eni's Investments in Egypt's Energy Sector

Eni, the Italian multinational energy giant, has played a pivotal role in shaping Egypt's energy landscape through substantial investments across various hydrocarbon projects. While Eni's involvement, particularly in the Zohr gas field, has been heralded as transformative, a closer examination reveals a more nuanced and problematic picture. This case study delves into Eni's investments in Egypt, focusing on the multifaceted challenges of declining production, environmental degradation, and the broader socio-economic implications of these operations.

Eni's Investment Portfolio in Egypt

Eni's financial commitment to Egypt's energy sector is substantial, with investments exceeding $13bn from 2015-2019.[221] Eni pledged an additional $7.7bn in 2023 to be invested over the following 4 years.[222] The company's portfolio includes significant upstream and downstream projects, reflecting a strategic focus on enhancing gas production and exploring new reserves.

The Zohr Field, discovered in 2015, stands out as Eni's flagship project in Egypt. Located in the Mediterranean Sea, the Zohr field was initially projected to hold around 30 trillion cubic feet of gas.[223] The field's anticipated production capacity of up to 2.7 billion cubic feet per day[224] was expected to significantly bolster Egypt's energy security, reducing the country's dependence on imported fuels and contributing to its energy self-sufficiency.

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[217]Ibid.
[218]Panxian Wang, Zimeng Ren, and Guanghua Qiao, "How Does Agricultural Trade Liberalization Have Environmental Impacts? Evidence from a Literature Review," *Sustainability* 15, no. 12 (June 10, 2023), https://doi.org/10.3390/su15129379
[219]Ibid.
[220]Ibid.
[221]"Italian Oil Giant Eni Says Overall Investments in Egypt Total $13 Billion since 2015 - Economy - Business," Ahram Online, January 16, 2019, https://english.ahram.org.eg/News/321869.aspx.
[222]Sarah Samir, "Eni to Invest 7.7B in Egypt's Energy Sector Over 4 Years," Egypt Oil & Gas, September 4, 2023, https://egyptoil-gas.com/news/eni-to-invest-7-7b-in-egypts-energy-sector-over-4-years/.
[223]"Zohr Natural Gas Field Project," The Arab Republic of Egypt Presidency, January 2018, https://bit.ly/3O4Bcpc
[224]"Eni to Drill Two New Wells in Egypt's Zohr in 2025," Enterprise, July 14, 2024, https://enterprise.news/egypt/en/news/story/97c6012f-bce9-4cd3-a3da-a6e9fd62038e/eni-to-drill-two-new-wells-in-zohr-in-2025.

The Nooros Field, situated in the Nile Delta, has also been a cornerstone of Eni's operations in Egypt. Production from the Nooros Field has reached approximately 1 billion cubic feet per day, making it a crucial component of Egypt's domestic gas supply and export capabilities.[225]

The Baltim South West Field, another notable asset, reflects Eni's ongoing efforts to expand its footprint in Egypt. Located in the Nile Delta, this field has played a key role in increasing gas production and exploring additional reserves.[226]

In the North El Hammad Concession, Eni made a significant gas discovery in 2020, which was expected to enhance production and address the decline from existing fields.[227]

Declining Production at Zohr: An In-Depth Analysis

The Zohr Field, once hailed as a major breakthrough, is now grappling with substantial production challenges. Initial expectations of maintaining a peak output of 2.7 billion cubic feet per day have not materialised as anticipated. Instead, production from Zohr declined to around 2.3 billion cubic feet per day in 2023 and 1.9 bn cfd in 2024.[228] This decline is attributed to several factors, with overdrilling reportedly a primary concern.

Overdrilling and Water Ingress

The decline in Zohr's production can be partially attributed to water leakages reportedly caused by overdrilling, as a consequence of an accelerated extraction strategy by Eni.[229] Reports state that Eni compressed the timeline for production in the Zohr field to just 28 months, instead of six to eight years.[230]The company told Greenpeace MENA that a "fast track approach is a distinctive feature of Eni's project development worldwide" and that the development of the field followed

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[225]Mostafa Hashem and Asma Alsharif, "Egypt's Nooros Gas Field Output Tops One Bcf/d -MENA," ed. Jason Neely, Reuters, May 16, 2017, https://www.reuters.com/article/business/energy/egypts-nooros-gas-field-output-tops-one-bcfd-mena-idUSL8N1II3V2/.

[226]"Eni Starts Production of Baltim South West Field Offshore Egypt," Eni SpA, September 17, 2019, https://www.eni.com/en-IT/media/press-release/2019/09/eni-starts-production-of-baltim-south-west-field-offshore-egypt.html.

[227]"Eni: Bashrush Discovery, in North El Hammad Concession in Mediterranean Sea of Egypt, Tested with Success," Eni SpA, July 28, 2020, https://www.eni.com/en-IT/media/press-release/2020/07/pr-eni-egypt-bashrush.html.

[228]Peter Stevenson, "Eni Egypt Output Woes Continue," MEES, April 26, 2024, https://www.mees.com/2024/4/26/oil-gas/eni-egypt-output-woes-continue/9d8acc20-03c2-11ef-88f3-2746916657c9.

[229]Imam Ramadan and Manar Behary, "Zohr Field's Declining Output: A Threat to Egypt's Energy Future," Zawia3, June 30, 2024, https://zawia3.com/en/zohr-field/; "Egyptian Natural Gas: Sizable Investments, Uncertain Returns," Alternative Policy Solutions, July 30, 2023, https://aps.aucegypt.edu/en/articles/1153/egyptian-natural-gas-sizable-investments-uncertain-returns

[230] "Power Outages Sweep Egypt Again amid High Demand, Decline in Natural Gas Output," *Mada Masr*, July 27, 2023, https://www.madamasr.com/en/2023/07/27/news/u/power-outages-sweep-egypt-again-amid-high-demand-decline-in-natural-gas-output/.

"best international standards".[231] Some have however pointed to "water infiltration problems in the main Zohr gas field as a result of accelerated gas extraction."[232]

According to a 2023 report by MEES, Eni's response to this decline has been to intensify drilling activities in adjacent areas and other fields, attempting to offset the drop in output.[233] Eni states the drilling is "in line with historical track record in Egypt."[234] This approach, while temporarily stabilising production levels, could lead to environmental risk – as it has coincided with an increase in hazardous waste[235] – and depletion of the reservoirs.[236] Eni's annual sustainability report identifies a significant increase in "the produced water from Zohr" as the primary driver behind a 29% rise in the company's "waste from production activities" in 2022, totaling 2.7 million tons. Notably, with this water classified as hazardous, it contributed to a dramatic surge in Eni's hazardous waste output from production activities, which more than doubled from 0.5 million tons to 1.1 million tons in 2022.[237] Eni did not dispute this, but told Greenpeace MENA that produced water from the Zohr field is treated at onshore treatment plants before final disposal.[238].

Analysis conducted on a sample provided by Petrobel–a joint venture between Eni and the Egyptian General Petroleum Corporation–and MI-SWACO of discharged water-based fluid (WBF) from a gas drilling operation that were disposed of in the Egyptian offshore reported that the effluent concentration of certain metals exceeded the legally-mandated offshore guidelines.[239] Eni indicated that while they cannot comment on this assessment as they are not aware of it, the company "carries out its activities in line with the Country regulations, according to the environmental impact studies approved by the Authorities and in line with international standards."[240]

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[231] E-mail from Eni of 27 November 2024.
[232] Ibid
[233]Peter Stevenson, "Egypt's Zohr: Eni Looks To Drill Its Way Out Of Water Woes," *MEES Data Driven Middle East Oil & Gas Analysis*, April 28, 2023 , , https://www.mees.com/2023/4/28/oil-gas/egypts-zohr-eni-looks-to-drill-its-way-out-of-water-woes/2852fa10-e5bf-11ed-8879-35169c87243e
[234] E-mail from Eni of 27 November 2024.
[235] Eni, "Eni for 2022: Sustainability Performance" (Eni), accessed November 19, 2024, https://www.eni.com/assets/documents/eng/just-transition/2022/eni-for-2022-sustainability-performance-eng.pdf
[236]"Declining Gas Production In Egypt Underlines Need For Further Discoveries," Fitch Solutions, July 18, 2023, https://www.fitchsolutions.com/bmi/oil-gas/declining-gas-production-egypt-underlines-need-further-discoveries-18-07-2023; MEES. (2020). Eni's Zohr Under Threat From Water Infiltration. *MEES*. https://www.mees.com/2020/10/16/oil-gas/enis-zohr-under-threat-from-water-infiltration/b80b1550-0fac-11eb-9f85-4d2db1ec78ab; "Power Outages Sweep Egypt Again amid High Demand, Decline in Natural Gas Output," *Mada Masr*, July 27, 2023, https://www.madamasr.com/en/2023/07/27/news/u/power-outages-sweep-egypt-again-amid-high-demand-decline-in-natural-gas-output/.
[237] Eni, "Eni for 2022: Sustainability Performance" (Eni), accessed November 19, 2024, https://www.eni.com/assets/documents/eng/just-transition/2022/eni-for-2022-sustainability-performance-eng.pdf.
[238] E-mail from Eni of 27 November 2024.
[239]Ahmad Agwa et al., "Fate of Drilling Waste Discharges and Ecological Risk Assessment in the Egyptian Red Sea: An Aquivalence-Based Fuzzy Analysis," Stochastic Environmental Research and Risk Assessment 27, no. 1 (February 24, 2012): 169–81, https://doi.org/10.1007/s00477-012-0574-0.
[240] E-mail from Eni of 27 November 2024.

Energy Security and the Impact of Declining Production

The decline in production at the Zohr Field has far-reaching implications for Egypt's energy security. The country has long struggled with energy shortages and unreliable power supply, challenges that have been exacerbated by the reduction in output from its major gas fields.[241]

Electricity Cuts and Power Outages

The decrease in gas supply from Zohr and other fields has led to a rise in electricity cuts and power outages, particularly during peak demand periods.[242] These outages disrupt daily life and economic activities, highlighting the vulnerability of Egypt's energy infrastructure.[243] The reliance on a few large hydrocarbon sources has left the country exposed to fluctuations in the security of power supply.

Energy Infrastructure Challenges

Eni's substantial investments in the fossil fuel industry and intensive extraction, combined with Egypt's fossil fuel-friendly policy, have contributed to Egypt's energy infrastructure remaining heavily reliant on fossil fuels. The lack of diversification in the energy mix and underinvestment in truly renewable energy for domestic use and grid modernisation means that the country has been slow to develop alternative energy sources. The energy infrastructure has not kept pace with the growing demand, leading to energy insecurity and instability of power supply.[244] The challenges faced by Egypt's energy sector underline the need for a more resilient and diversified energy strategy which accounts for an increased share of green energies in the domestic energy mix. The decline in production from major fields like Zohr, reportedly exacerbated by Eni's overdrilling, has exposed the volatility of the country's energy security and the heavy risks of fossil fuel dependency.

Economic Disparities

Eni's investments have generated significant revenues and bolstered Egypt's foreign exchange reserves. However, the economic benefits have not been evenly distributed. The promise of job creation and economic development has largely failed to materialise for local communities. Extractive industries are capital-intensive and the few high-skilled positions they offer are filled by expatriates or temporary workers, leaving local residents with limited opportunities.[245] The benefits of resource extraction have been concentrated among a few local elites and multinational corporations,[246] while the broader population has faced increased environmental

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[241] "Egyptian Natural Gas: Sizable Investments, Uncertain Returns," Alternative Policy Solutions, July 30, 2023, https://aps.aucegypt.edu/en/articles/1153/egyptian-natural-gas-sizable-investments-uncertain-returns.
[242] Ibid.
[243] Ibid.
[244] Ibid.
[245] Claudine Sigam and Leonardo Garcia, "Extractive Industries: Optimizing Value Retention in Host Countries," UNCTAD, 2012, https://unctad.org/system/files/official-document/suc2012d1_en.pdf.
[246] Ksenija Hanaček et al., "On Thin Ice – The Arctic Commodity Extraction Frontier and Environmental Conflicts," Ecological Economics 191 (January 2022): 107247, https://doi.org/10.1016/j.ecolecon.2021.107247.

risks[247] and economic hardships.[248] While Eni continues to reap the benefits from its investments in Egypt, the last official poverty headcount in 2019 stood at 29.7%,[249] with the World Bank estimating 60% of the population lived in or near poverty.[250] The Gini Inequality Index in Egypt amounted to 31.9 in 2019, a slight increase from 2015.[251] Additionally, while unemployment rates seemingly improved by 5%,[252] it can be accounted for by labour force participation rates dropping by an equal 5% from 2015 to 2022.[253]

Eni's investments in Egypt's energy sector reflect broader patterns of neocolonial and extractivist development, where multinational corporations extract significant resources while local communities bear the costs.[254] The uneven distribution of economic benefits and the environmental and social impacts of Eni's operations highlight the limitations of an extractivist development model. Egypt continued to export gas despite decreased production and power cuts in 2023, only halting exports for a couple of months.[255] This pattern continued in 2024 with Egypt upping exports in April despite a decrease in production, triggering an enormous energy shortage in the summer that forced Egypt to import gas and halt exports, expecting to once again resume exports in the fall.[256] The reliance on exporting gas from Zohr without accounting for decreased production or increased local electricity demand during the peak summer months has caused disruptive power outages for Egyptians and forced Egypt to import gas for domestic use, while its own gas production was being exported to Europe in the previous months.

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[247]Amr Hamzawy, Mohammad Al-Mailam, and Joy Arkeh, "Climate Change in Egypt: Opportunities and Obstacles," Carnegie Endowment for International Peace, October 26, 2023, https://carnegieendowment.org/research/2023/10/climate-change-in-egypt-opportunities-and-obstacles?lang=en.
[248]Ruth Michaelson, "Inflation, IMF Austerity and Grandiose Military Plans Edge More Egyptians into Poverty," The Guardian, May 8, 2023, https://www.theguardian.com/global-development/2023/may/08/inflation-imf-austerity-and-grandiose-military-plans-edge-more-egyptians-into-poverty.
[249]World Bank Group, "Poverty & Equity Brief - Middle East & North Africa: Arab Republic of Egypt" (World Bank Group, April 2023), https://databankfiles.worldbank.org/public/ddpext_download/poverty/987B9C90-CB9F-4D93-AE8C-750588BF00QA/current/Global_POVEQ_EGY.pdf.
[250]World Bank Group, "World Bank Group to Extend Current Strategy in Egypt to Maintain Momentum on Reforms," World Bank Group, April 30, 2019, https://www.worldbank.org/en/news/press-release/2019/04/30/world-bank-group-to-extend-current-strategy-in-egypt-to-maintain-momentum-on-reforms.
[251]"World Bank Open Data," World Bank Open Data, accessed September 25, 2024, https://data.worldbank.org/indicator/SI.POV.GINI?locations=EG.
[252]"World Bank Open Data," World Bank Open Data, accessed September 25, 2024, https://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS?locations=EG.
[253]"World Bank Open Data," World Bank Open Data, accessed September 25, 2024, https://data.worldbank.org/indicator/SL.TLF.CACT.NE.ZS?locations=EG.
[254] Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in Beyond Development: Alternative Visions from Latin America, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).
[255]Marwa Rashad, "Egypt Expected to Resume LNG Exports in December or January - ENI Exec," Reuters, November 14, 2023, https://www.reuters.com/business/energy/egypt-expected-resume-lng-exports-december-or-january-eni-exec-2023-11-14/.
[256]Mahmoud Hatem, "Egypt's Gas Exports Rise for First Time since December," Claps, June 25, 2024, https://claps.therumble.app/egypts-gas-exports-rise-for-first-time-since-december/.

The declining production from the Zohr Field and the associated challenges punctuate the need for a more comprehensive and sustainable approach to resource management that prioritises renewable energy for local benefits. The impacts of overdrilling, environmental degradation, and energy insecurity demonstrate the complexities and risks associated with large-scale hydrocarbon projects.

In conclusion, Eni's investments in Egypt's extractives sector have not only failed to deliver long-term benefits but have also exacerbated environmental and socio-economic issues. The decline in production at Zohr highlights the inherent instability and unsustainability of fossil fuel exploitation, raising serious concerns about the continued prioritisation of these resources over renewable energy. Eni's operations offer valuable insights into the broader implications of multinational investments in fossil fuels in developing countries. This case highlights the need for a just transition to renewable energy in Egypt, oriented towards fulfilling Egypt's energy needs in an environmentally sustainable and socially equitable manner away from fossil fuels.

Case study II: focus on water scarcity

Agriculture is by far the main driver of water scarcity globally, as 70% of the water that humans use goes to produce food, the majority through crop irrigation and feeding livestock.[257] At present, a quarter of the world's crops are irrigated, but already about one third of them face extremely high water stress,[258] meaning that their freshwater usage is highly unsustainable. Water for irrigation usually comes from the same sources of water used for households and energy utilities.[259] And as more crops would rely on water from rivers and groundwater, there is less water available for other purposes, such as drinking or sanitation.

At the heart of this issue is the overreliance on unsustainable irrigation practices, which have become a cornerstone of global food production. These practices are depleting critical freshwater resources at an alarming rate, disrupting natural water cycles, and causing irreversible damage to aquatic ecosystems.[260] The relentless drive to meet the growing demands for agricultural products, both domestically and internationally, has led to the excessive extraction of water, particularly from non-renewable sources like groundwater. This over-extraction is happening at rates that far exceed natural recharge capacities, threatening the long-term viability of water supplies and the ecosystems that depend on them.

In Morocco, EU agencies, multilateral development banks (MDBs), and various European countries have heavily invested in agribusiness, specifically targeting the production of crops such as tomatoes, citrus fruits, and other high-yield export crops which typically require substantial amounts of water.[261] Cash crops that are primarily exported to Europe.[262] This

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[257] https://www.wri.org/insights/water-could-limit-our-ability-feed-world-these-9-graphics-explain-why
[258] Ibid.
[259] Ibid.
[260] Lorenzo Rosa et al., "Global Unsustainable Virtual Water Flows in Agricultural Trade," *Environmental Research Letters* 14, no. 11 (October 22, 2019): 114001, https://doi.org/10.1088/1748-9326/ab4bfc.
[261] Ibid.
[262] Hamza Hamouchene, "Challenging Agribusiness and Building Alternatives in Tunisia and Morocco," Siyada Network, July 17, 2020,

emphasis on export of thirsty crops agriculture has resulted in several adverse effects, including the depletion of local water resources, exacerbating water scarcity in an already drought-prone country.[263] Morocco's agricultural sector relies heavily on irrigation, which is often unsustainable given the country's limited water resources. The focus on high-yield export crops typically requires substantial amounts of water, leading to the over-extraction of groundwater and the deterioration of local aquifers.[264] The cultivation of those cash crops often leads to monocultures, reducing biodiversity and increasing vulnerability to pests and diseases.[265] Furthermore, the extensive use of chemical fertilisers and pesticides associated with large-scale agribusiness can lead to soil degradation and pollution of local water sources.[266]

Similarly, in Egypt, investments have predominantly targeted export-oriented agriculture,[267] with a significant focus on cash crops such as cotton, which is notorious for its water-intensive cultivation.[268] The impacts of these investments on the country's agricultural landscape and water resources is wide-reaching. The Nile is Egypt's primary water source, and the prioritisation of export-oriented crops places additional pressure on this crucial resource. With the cultivation of water-intensive crops like cotton, there is a heightened risk of exacerbating the country's existing water crisis.[269] Over-reliance on the Nile for irrigation threatens not only agricultural sustainability but also access to water for domestic use, affecting millions of Egyptians.

Social Impacts and Food Security

The social impacts of this agricultural model are also palpable. Plantations for cash crops such as palm oil often require the dispossession of Indigenous lands, leading to precarious labour conditions, unregulated use of natural resources, and the destruction of local ecosystems.[270] The impact on the environment is profound, as vast tracts of forests are cleared, leading to a loss of biodiversity and the disruption of traditional livelihoods.[271] Moreover, the pay-per-weight

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https://en.siyada.org/siyada-board/research-and-publications/challenging-agribusiness-and-building-alternatives-in-tunisia-and-morocco/.

[263] K. Benabderrazik et al., "Agricultural Intensification Can No Longer Ignore Water Conservation – A Systemic Modelling Approach to the Case of Tomato Producers in Morocco," *Agricultural Water Management* 256 (October 2021): 107082, https://doi.org/10.1016/j.agwat.2021.107082.

[264] Ibid.

[265] "Understanding Monocultures and 'Green Deserts' · Planet Wild," Planet Wild, May 22, 2023, https://planetwild.com/blog/monoculture-green-deserts-and-5-ways-you-can-help.

[266] Sachchidanand Tripathi et al., "Influence of Synthetic Fertilizers and Pesticides on Soil Health and Soil Microbiology," in *Agrochemicals Detection, Treatment and Remediation* (Elsevier, 2020), 25–54, http://dx.doi.org/10.1016/b978-0-08-103017-2.00002-7.

[267] Saker El Nour, "Towards a Just Agricultural Transition in North Africa," in *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region*, ed. Hamza Hamouchene and Katie Sandwell (Pluto Press (UK), 2023).

[268] "Ecological and Social Costs of Cotton Farming in Egypt," Open Case Studies, accessed October 4, 2024, https://cases.open.ubc.ca/w17t2cons200-29/.

[269] Ibid.

[270] Pablo Ciocchini and Joe Greener, "Mapping the Pains of Neo-Colonialism: A Critical Elaboration of Southern Criminology," *The British Journal of Criminology* 61, no. 6 (May 17, 2021): 1612–29, https://doi.org/10.1093/bjc/azab041.

[271] Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in *Beyond Development: Alternative Visions from Latin America*, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).

regimes[272] under which labourers work are often exploitative, leaving them in a state of perpetual poverty.[273]

In North Africa, the withdrawal of state support for small farmers, who have traditionally been the stewards of sustainable agricultural practices, has marginalised these communities and exacerbated rural poverty.[274]

The concentration of land and resources in the hands of a few agribusiness firms has also led to social displacement and rising inequality in rural areas. Small-scale farmers and agricultural workers in Egypt often find themselves unable to compete for land and resources,[275] leading to increased poverty, displacement and social unrest. Egypt's agricultural megaprojects and land reclamation projects, often implemented with an eye on upping exports, have a long history of displacing local populations,[276] with the recently revived Toshka project in Egypt as one example.[277] The Toshka and Wadi Al-Nukra[278] projects have displaced a large number of indigenous populations – Nubians in the former and Ababda Bedouins in the latter – in the projects' decided territories for the sake of investors (oftentimes for export production), with the recent push for land reclamation projects[279] mirroring this dynamic. Facing a similar dynamic, smallholder farmers, who form the backbone of Morocco's agricultural sector, are increasingly marginalised as agribusiness firms monopolise arable land and water supplies. These firms often possess better access to technology, finance, and market information, allowing them to outcompete smallholders.[280] This trend threatens the livelihoods of these farmers and diminishes local food sovereignty, as agricultural production becomes increasingly geared toward international markets rather than local consumption.[281]

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[272]Pay-per-weight regimes are payment structures where farm labourers are paid by the weight collected/sold; labour hours do not factor into this system.
[273]Pablo Ciocchini and Joe Greener, "Mapping the Pains of Neo-Colonialism: A Critical Elaboration of Southern Criminology," *The British Journal of Criminology* 61, no. 6 (May 17, 2021): 1612–29, https://doi.org/10.1093/bjc/azab041.
[274]Ibid.
[275]OECD et al., "Production Transformation Policy Review of Egypt," *OECD Development Pathways* (OECD, July 8, 2021), http://dx.doi.org/10.1787/302fec4b-en
[276]Ali Al-Raggal, "Land in Egypt: A Struggle for Power, Wealth, and Survival," *Assafir Arabi*, September 24, 2022, https://assafirarabi.com/en/47676/2022/09/24/land-in-egypt-a-struggle-for-power-wealth-and-survival/
[277]Ruth Michaelson, "Egypt's Nubians Fight for Ancestral Land Earmarked for Mega-Project," *The Guardian*, February 13, 2017, https://www.theguardian.com/global-development/2017/feb/13/egypt-nubians-fight-for-ancestral-land-earmarked-for-mega-project.
[278] Saker El Nour, "Grabbing from below: A Study of Land Reclamation in Egypt," *Review of African Political Economy* 46, no. 162 (2019), https://doi.org/10.1080/03056244.2019.1755190.
[279]"Mega Projects in Agriculture and Transport: Is This What We Need?," Alternative Policy Solutions, accessed October 4, 2024, https://aps.aucegypt.edu/en/articles/1337/mega-projects-in-agriculture-and-transport-is-this-what-we-need..
[280]Ibrahim El Hatimi, "Loans and Their Impact on Small-Scale Food Producers in Morocco," Network Siyada, August 11, 2023, https://en.siyada.org/ibrahim-el-hatimi/struggles-and-resistance/farmers/loans-and-their-impact-on-small-scale-food-producers-in-morocco/.
[281]Hamza Hamouchene, "Challenging Agribusiness and Building Alternatives in Tunisia and Morocco," Siyada Network, July 17, 2020, https://en.siyada.org/siyada-board/research-and-publications/challenging-agribusiness-and-building-alternatives-in-tunisia-and-morocco/.

Indeed, the shift towards export-oriented agriculture, coupled with the privatisation of land and water resources, has led to significant social challenges. Neoliberal policies of desert agricultural expansion, state land commodification, and the capital-intensive shift towards agricultural exports production have led to a foregoing of food self-sufficiency for the sake of globalised market-based purported food security mechanisms.[282] This has, in turn, led to rising food insecurity, malnutrition, and food dependency.[283]

The prioritisation of exports over domestic food security reflects a broader trend of European extractivist investments that often prioritise European needs over local welfare. Countries in the Global South on the receiving end, often trapped by their need to service debts and to pay high food import bills (generally in USD), are likely to go along with it to ramp up exports of cash crops and generate foreign exchange rather than shift towards growing staples for domestic consumption or diversifying their agriculture – thereby reinforcing their reliance on staple food imports in the longer term.[284]

In Egypt, the currency floatation coinciding with an increase in agricultural FDI is an indication that foreign investors are mainly aiming to export products and reduce costs.[285] As a result, Egypt faces challenges in ensuring food security, as large portions of arable land are dedicated to crops that serve international markets instead of addressing local food demands.[286] This has led to increased food prices and reliance on food imports, further compromising the country's food security.

In both Morocco and Egypt, the export-driven agricultural investments from European countries reflect a troubling trend where local communities bear the brunt of social and environmental costs. While these investments may boost export revenues, they undermine the very foundations of local economies, exacerbate environmental degradation, and threaten food security. To address these challenges, a shift towards more sustainable, equitable agricultural practices that prioritise local welfare and environmental health is essential.

- END OF CASE STUDY

IV. Towards a Feminist and Just Economic Transition

The Sufficiency-Based Wellbeing Economy

The concept of a sufficiency-based wellbeing economy fundamentally challenges the conventional economic paradigm of perpetual growth and material abundance that drives Europe's extractivist endeavors in Morocco and Egypt. Rooted in the belief that the economy's

[282]Saker El Nour, "Towards a Just Agricultural Transition in North Africa," in *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region*, ed. Hamza Hamouchene and Katie Sandwell (Pluto Press (UK), 2023).
[283]Ibid.
[284] https://ipes-food.org/_img/upload/files/AnotherPerfectStorm.pdf
[285]A.Z. Kassem and Mai M. Awad, "Determinants of Foreign Direct Investment in Egypt's Agriculture," *Assiut Journal of Agricultural Sciences* 50, no. 4 (December 1, 2019): 13–14, https://doi.org/10.21608/ajas.2019.66207.
[286]Saker El Nour, "Towards a Just Agricultural Transition in North Africa," in *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region*, ed. Hamza Hamouchene and Katie Sandwell (Pluto Press (UK), 2023).

purpose is to serve people and the planet, not vice versa,[287] and that "just enough is plenty," a sufficiency-based wellbeing approach focuses on meeting essential needs within the ecological limits of the planet while fostering social equity and ecological sustainability.[288] This framework centers people and the planet[289] and prioritises achieving a balanced state where both individual and societal needs are modestly but sufficiently met, as opposed to the endless pursuit of economic growth and material excess.[290]

As defined by the Intergovernmental Panel on Climate Change, sufficiency policies are "measures and daily practices that avoid the demand for energy, materials, water, and land while delivering human wellbeing for all within planetary boundaries."[291]

The sufficiency-based wellbeing economy stands in stark contrast to the dominant macroeconomic paradigm, which is heavily reliant on continuous growth and increased consumption. Traditional capitalist economic models are predicated on the assumption that more production and consumption equate to better living standards. In contrast, the sufficiency approach shares affinities with post-growth conceptualisations, which recognise that excessive consumption and growth are neither necessary nor desirable for achieving a high quality of life. Instead, it prioritises the need to operate within the planet's ecological boundaries, advocating for a lifestyle that respects both social and environmental limits.[292]

As proposed by the Wellbeing Economy Alliance, a wellbeing economy is centred around four principles: pre-distribution, purpose, prevention, and people-powered. Greenpeace's principles for alternative futures prioritise an economy and society that promotes wellbeing at the core; people and the planet above growth and profit; equitable distribution of wealth and power; inclusion, justice and diversity; and resilience and communities.[293] They also call for governments to promote transparency, participatory democracy, cooperation and mutual aid, and accountability.[294] In a wellbeing economy, policies are people-centered, long-term, and ensure

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[287]"What Is a Wellbeing Economy? ," Wellbeing Economy Alliance, accessed September 5, 2024, https://weall.org/what-is-wellbeing-economy.
[288]Samuel Alexander, "The Sufficiency Economy: Envisioning a Prosperous Way Down," *SSRN Electronic Journal*, 2012, https://doi.org/10.2139/ssrn.2210170.
[289]"What Is a Wellbeing Economy? ," Wellbeing Economy Alliance, accessed September 5, 2024, https://weall.org/what-is-wellbeing-economy.
[290]Samuel Alexander, "The Sufficiency Economy: Envisioning a Prosperous Way Down," *SSRN Electronic Journal*, 2012, https://doi.org/10.2139/ssrn.2210170; Anders Hayden and Clay Dasilva, "The Wellbeing Economy: Possibilities and Limits in Bringing Sufficiency from the Margins into the Mainstream," *Frontiers in Sustainability* 3 (October 10, 2022), https://doi.org/10.3389/frsus.2022.96687; Doris Fuchs et al., "Living Well within Limits," in *Consumption Corridors* (London: Routledge, 2021), 1–5, http://dx.doi.org/10.4324/9780367748746-1.; Anders Hayden, "Sufficiency," in *Routledge Handbook of Global Sustainability Governance* (Routledge, 2019), 151–63, http://dx.doi.org/10.4324/9781315170237-13.
[291] Intergovernmental Panel on Climate Change, Climate Change 2022: Mitigation of Climate Change, Working Group III Contribution to the Sixth Assessment Report, 2022 https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/
[292] Lorenzo Fioramonti et al., "Wellbeing Economy: An Effective Paradigm to Mainstream Post-Growth Policies?," *Ecological Economics* 192 (February 2022): 107261, https://doi.org/10.1016/j.ecolecon.2021.107261; "FAQ : Wellbeing Economy Alliance," Wellbeing Economy Alliance, accessed September 5, 2024, https://weall.org/faq.
[293]"Growing the Alternatives," Greenpeace International, November 21, 2023, https://www.greenpeace.org/international/publication/62592/growing-the-alternatives/.
[294]Ibid.

environmental protection and regeneration.[295] In practical terms, this model aims to reduce material consumption and limit production to what is ecologically sustainable and socially equitable. It recognises that while material sufficiency might require increased consumption for those living with scarcity, for affluent societies, it means curbing excessive consumption and redistributing resources more fairly.[296] This approach aligns with the understanding that true progress involves achieving wellbeing within ecological constraints rather than pursuing unbounded economic growth.[297] This is feasible, given recent research suggesting that provisioning decent living standards for 8.5 billion people would require only 30% of current global resource and energy use.[298]

The sufficiency-based wellbeing economy emphasises a respectful and sustainable relationship with nature, as well as the commoning and collective management of resources.[299] This involves moving away from exploitative practices and adopting models that do not harm the environment, and respect it as a shared resource.[300] Integrating indigenous knowledge and practices that centre harmony with nature can play a crucial role in this transition. Reconnecting with nature also means adopting practices that support environmental conservation and reduce ecological impacts.[301]

Two prominent frameworks that are integral to a sufficiency-based wellbeing economy are degrowth and strong sustainability, which challenge conventional assumptions and propose new ways of organising economic and social systems.

Degrowth is an economic paradigm that advocates for intentionally reducing economic activity and resource consumption to stay within ecological limits. The core idea behind degrowth is that perpetual economic growth is neither feasible nor desirable given the planet's finite resources. While some level of economic development is necessary to meet basic needs in impoverished regions, wealthier nations must deliberately scale down their consumption to create ecological and economic space for poorer countries. The goal is to achieve a "steady-state" economy where growth is no longer the primary objective but rather a balanced state of sufficiency and wellbeing.[302] The practical implications of degrowth involve a fundamental rethinking of economic organisation and measurement. This includes transitioning away from Gross Domestic Product (GDP) as the central metric of success, and adopting new indicators that reflect social and environmental wellbeing.

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[295]"What Is a Wellbeing Economy?" Wellbeing Economy Alliance, accessed September 5, 2024, https://weall.org/what-is-wellbeing-economy.
[296]Hannah Klinkenborg and Anica Rossmoeller, "Connecting Sufficiency, Materialism and the Good Life? Christian, Muslim and Hindu-Based Perspectives on EU-Level," *Frontiers in Sustainability* 3 (October 28, 2022), https://doi.org/10.3389/frsus.2022.952819.
[297]Ibid.
[298] Jason Hickel and Dylan Sullivan, 'How Much Growth Is Required to Achieve Good Lives for All? Insights from Needs-Based Analysis', World Development Perspectives, 35 (2024), p. 100612, doi:10.1016/j.wdp.2024.100612.
[299]"What Is a Wellbeing Economy? ," Wellbeing Economy Alliance, accessed September 5, 2024, https://weall.org/what-is-wellbeing-economy.
[300]Ibid.
[301]Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in *Beyond Development: Alternative Visions from Latin America*, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).
[302]Anders Hayden and Clay Dasilva, "The Wellbeing Economy: Possibilities and Limits in Bringing Sufficiency from the Margins into the Mainstream," *Frontiers in Sustainability* 3 (October 10, 2022), https://doi.org/10.3389/frsus.2022.966876.

Degrowth models also advocate for equitable resource distribution and fair wages. Traditional economic systems often exacerbate inequalities, concentrating wealth and resources in the hands of a few, while large segments of the global population remain impoverished. By challenging the traditional focus on growth, degrowth models propose a more equitable distribution of resources and wealth, aligning economic practices with social and environmental goals.[303] This involves creating economic systems that prioritise fair wages and equitable resource allocation, addressing income disparities and fostering social justice.

The concept of **strong sustainability** complements this approach by emphasising that economic/manufactured/human capital should not and cannot entirely replace natural capital.[304] It views natural capital (e.g. forests or river systems) as distinct and able to fulfill a range of economic production inputs and biological, recreational, and pollution absorption functions, where it is not possible to find replacements that fulfill all those functions.[305] Strong sustainability advocates for preserving environments rich in ecological and social values.

Intersectional feminist perspectives are also integral to the discourse on equitable economic models. Intersectional feminism highlights how gender, race, class, and sexuality intersect within economic systems, advocating for frameworks that recognise and address the unique challenges faced by marginalised communities. For instance, feminist groups in Morocco have formed coalitions that include indigenous women, rural women, economically disadvantaged individuals from both rural and urban areas, women of African descent, lesbians, and trans women.[306] These coalitions bring diverse perspectives and experiences to the forefront, fostering solidarity and collective management in response to extractive industries that disproportionately impact these groups.[307]

Intersectional feminism emphasises the importance of inclusive and equitable economic models that consider the multifaceted nature of marginalisation. By integrating these perspectives, economic systems can be developed to address both social justice and environmental sustainability. This approach helps create policies and practices that are more inclusive and responsive to the needs of all segments of society, particularly those most affected by economic and environmental injustices.

Feminist Economics and Sufficiency-Based Wellbeing

Feminist economics, which emerged as a critical response to traditional economic theories, shares key principles with the sufficiency-based wellbeing economy. It challenges the

[303]Samuel Alexander, "The Sufficiency Economy: Envisioning a Prosperous Way Down," SSRN Electronic Journal, 2012, https://doi.org/10.2139/ssrn.2210170.
[304]Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in *Beyond Development: Alternative Visions from Latin America*, ed. Miriam Lang and Dunia Mokrani (Transnational Institute / Rosa Luxemburg Foundation, 2013).
[305]Jean-François Noël and Martin Paul O'Connor, "Strong Sustainability and Critical Natural Capital," unknown, January 1, 1998, https://www.researchgate.net/publication/284078771_Strong_sustainability_and_critical_natural_capital.
[306]Lamyaâ Achary, "Extractivism, Gender Inequality, and Queer Marginalization in Morocco," *Friedrich-Ebert-Stiftung*, September 11, 2023, https://feminism-mena.fes.de/e/extractivism-gender-inequality-and-queer-marginalization-in-morocco.html.
[307]Lamyaâ Achary, "Extractivism, Gender Inequality, and Queer Marginalization in Morocco," *Friedrich-Ebert-Stiftung*, September 11, 2023, https://feminism-mena.fes.de/e/extractivism-gender-inequality-and-queer-marginalization-in-morocco.html.

androcentric and growth-focused nature of mainstream economics, while also constituting a framework for social transformation and the construction of economies based on justice and equity.[308]

A feminist approach to the economy focuses on social provisioning and the equitable distribution of resources, integrating gender as a central category of analysis. It seeks to address the inequities inherent in economic systems that prioritise profit and growth over human wellbeing and environmental sustainability.[309] Feminist economics critiques the reductionist focus on market performance and production, instead highlighting the importance of meeting basic needs and ensuring equitable access to resources.

Feminist economic frameworks prioritise transforming economic systems for equity and sustainability. Key tenets include recognising and compensating invisible and unpaid labour, such as domestic and care work, and focusing on sustainability and ecological health. They emphasise solidarity, cooperation, and eco-dependence, integrating ecological and economic considerations. Protection from violence in extractive industries, strengthening worker rights, and ending sanctions are crucial, alongside investing in the care economy and ensuring equitable healthcare and reproductive justice. The frameworks advocate for gender equality through the equal earner – equal carer model, gender budgeting, and inclusive decision-making. Anti-colonialism, local knowledge, and alternative economic measurements are essential, with a strong emphasis on non-violence and peace.[310]

The sufficiency-based wellbeing economy offers a transformative vision for moving beyond the limitations of growth-focused economic models. By aligning with feminist values and emphasising social and ecological wellbeing, this approach provides a pathway towards more sustainable and equitable economic systems. Implementing sufficiency principles requires a concerted effort to rethink economic priorities, address systemic inequities, and promote policies that support both human and environmental health. Through this shift, societies can build more just and resilient economies that respect planetary boundaries and ensure a dignified life for all.

Leveraging Communal, Traditional, and Ancestral Models in Pursuit of Feminist People-Centered Wellbeing Economies

Community-Centric Renewable Energy Projects: A Model for Communal Resource Management

Community-centric renewable energy projects provide a compelling model for achieving equity, sustainability, and local empowerment in the transition to cleaner energy sources. By involving local communities directly in the development, ownership, and management of renewable energy systems, these projects address both energy needs and broader social and economic goals.

[308]Astrid Agenjo-Calderón and Lina Gálvez-Muñoz, "Feminist Economics: Theoretical and Political Dimensions," *American Journal of Economics and Sociology* 78, no. 1 (January 23, 2019): 137–66, https://doi.org/10.1111/ajes.12264.
[309]Ibid.
[310]"Investing in a Feminist Economy," Climate Justice Alliance, June 3, 2020, https://climatejusticealliance.org/investing-in-a-feminist-economy/; "What Is a Feminist Economy?," Friends of the Earth International, February 28, 2023, https://www.foei.org/video/what-is-a-feminist-economy-video/; "Purple Pact: It's Time for a Feminist Approach to the Economy," European Women's Lobby, March 4, 2020, https://www.womenlobby.org/Purple-Pact-It-s-Time-for-a-Feminist-approach-to-the-Economy.

Community-centric renewable energy projects also play a crucial role in fostering energy democracy – a concept adopted by grassroots movements advocating for equitable, community-owned energy systems. By shifting control from centralised, profit-driven energy models to locally governed and owned systems, these projects address historical inequities in energy access, and environmental justice, and citizen participation in decentralised decision making. The Energy Democracy movement aims to ensure that renewable energy transitions are governed by communities, designed to minimise environmental harm, and support local economies.[311] This approach not only enhances energy security and reduces costs for local residents but also empowers communities to determine how energy revenues are used and reinvested, thus fostering a regenerative energy economy.[312]

Community-powered schemes and decentralised, local production represent a transformative shift in how we approach energy, resource management, and economic development. These models offer a critical alternative to traditional, centralised systems that often prioritise profit over people and the environment. Decentralised systems may also contribute to addressing questions regarding storage and transportation of energy, contributing to wildlife conservation through limiting energy transport infrastructure, which often jeopardizes ecosystems.[313] By redistributing power and resources to local communities and emphasising self-sufficiency, these approaches provide a pathway toward more equitable and sustainable development.

Globally, community-owned energy projects are gaining momentum. In Brixton, South London, the Brixton Energy co-op has installed over 100,000 kW of solar power on the roofs of three neighborhood estates.[314] The cooperative allocates a portion of the revenue to a Community Energy Efficiency Fund, which supports local energy efficiency initiatives. In the state of Goias in Brazil, farming women have organised to provide renewable energy and manage water systems, addressing both energy and water needs while promoting local self-sufficiency.[315] In the Philippines, residents of Tacloban, devastated by Typhoon Haiyan, have built portable solar panels known as TekPaks to enhance local energy resilience and provide emergency power during blackouts.[316] These examples highlight the diverse and impactful ways in which community ownership and participation in renewable energy projects can drive sustainable development and social justice.

The benefits of including community-powered schemes in Global South countries' energy transition and development strategies extend beyond economic and environmental aspects. They also foster social cohesion and empowerment by involving local residents in decision-making processes and project management. This participatory approach ensures that projects are tailored

[311]"Energy Democracy," Climate Justice Alliance, January 18, 2018, https://climatejusticealliance.org/workgroup/energy-democracy/.
[312]Ibid.
[313]Sara C. Bronin, "Curbing Energy Sprawl with Microgrids," April 23, 2010, https://www.researchgate.net/publication/228155619_Curbing_Energy_Sprawl_with_Microgrids.
[314]santiago, "Community-Centred Energy: A Roadmap for Renewable Energy Transition," 350, August 7, 2023, https://350.org/community-centred-energy-a-roadmap-for-renewable-energy-transition/.
[315]Ibid.
[316]Ibid.

to the specific needs and preferences of the community, enhancing their effectiveness and sustainability. Additionally, community-owned projects often reinvest profits back into the local area, creating a regenerative economy that supports social and economic development. This reinvestment can fund local services, infrastructure, and community initiatives, further strengthening the social fabric and economic resilience of the area.[317] Community-powered schemes can also contribute to achieving gender justice, centering women as energy producers, instead of just consumers.[318]

Examples in Action

The Global South offers valuable insights into alternative economic models and their application. The intellectual roots of degrowth are often traced to Southern post-development discourses. Scholars highlight that the critique of growth was significantly influenced by thinkers from the Global South, such as Sri Lankan-born philosopher Ananda Coomaraswamy and Bengali poet Rabindranath Tagore.[319] These Southern philosophies emphasise alternatives to Western development models, such as Buen Vivir from the Andean region and Ubuntu from Bantu-speaking peoples in Africa.[320]

Sufficiency Economy in Thailand

The Sufficiency Economy Philosophy, introduced by King Bhumibol Adulyadej in Thailand in 1997, provides a comprehensive framework for sustainable development. This philosophy emerged as a response to economic adversity and is distinguished by its emphasis on moderation, reasonableness, and self-immunity or built-in resilience to internal and external changes.[321] It encourages individuals and communities to adopt a balanced approach to resource use, emphasising ethical behavior and social responsibility over unchecked economic growth.[322] A 2007 survey found that 74% of communities in Thailand moderately applied the philosophy's main tenets, while 13.6% of communities adhered to its principles to a large extent.[323]

Buen Vivir in Ecuador and Bolivia

In the Andean region, Ecuador and Bolivia have embraced the concept of Buen Vivir, or "Sumac Kawsay," as a foundational principle for development. Adopted from the indigenous Quechua and Aymara traditions, the concept of Buen Vivir represents a paradigm shift from conventional economic models focused on growth and extraction to one centered on harmony with nature and

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[317]Megan Snaith, "An Overview of Community Energy and Its Benefits," *Earth.Org*, February 2, 2024, https://earth.org/power-to-the-people-an-overview-of-community-energy/.
[318]Ulrika Ernström, "The Women Who Tear down Power Structures with Solar Energy," *Chalmers University of Technology*, February 23, 2023, https://www.chalmers.se/en/current/news/tme-the-women-who-tear-down-power-structures-with-solar-energy/.
[319]Jason Hickel, "The Anti-Colonial Politics of Degrowth," *Political Geography* 88 (June 2021): 102404, https://doi.org/10.1016/j.polgeo.2021.102404.
[320]Giacomo D'Alisa, Federico Demaria, and Giorgos Kallis, *Degrowth: A Vocabulary for a New Era* (Routledge, 2014).
[321]Aree Naipinit, Thongphon Promsaka Na Sakolnakorn, and Patarapong Kroeksakul, "Sufficiency Economy for Social and Environmental Sustainability: A Case Study of Four Villages in Rural Thailand," *Asian Social Science* 10, no. 2 (December 29, 2013), https://doi.org/10.5539/ass.v10n2p102.
[322]Prasopchoke Mongsawad and Nattapong Thongpakde, "Sufficiency Economy Philosophy: A Holistic Approach to Economic Development and Mainstream Economic Thought," *Asian Social Science* 12, no. 7 (June 21, 2016): 136, https://doi.org/10.5539/ass.v12n7p136.
[323]"Sustainability in Thailand – Experience for Developing Countries (2017)," UNOSSC, January 12, 2017, https://unsouthsouth.org/2017/01/12/sustainability-in-thailand-experience-for-developing-countries-2017/.

community wellbeing. Ecuador's 2008 Constitution and Bolivia's 2009 Constitution incorporate Buen Vivir as a guiding principle for state action. This concept challenges the traditional neoliberal model of development, which often prioritises resource extraction and economic growth at the expense of environmental and social sustainability. Instead, Buen Vivir promotes a holistic approach to development that values ecological balance, community cohesion, and respect for indigenous knowledge.[324]

Commons and Communal Resource Management

Several initiatives in the Global South demonstrate innovative approaches to resource management and urban commons that align with principles of sustainability and community empowerment.

Kyrgyzstan:The government has supported reforms that enable communities to manage pastures using traditional commons-based systems, which describe models of production in which large numbers of people work cooperatively. These reforms recognise that local knowledge and practices are often more effective than market-based or state regulations in maintaining ecological balance and supporting community livelihoods. By allowing communities to manage their resources according to traditional practices, these reforms help preserve both the environment and local cultural heritage.[325]

Ghana: The Community Resource Management Area (CREMA) Policy provides a framework for local communities to manage and harvest resources within designated areas. This policy empowers communities to take control of their natural resources, ensuring that their economic activities are aligned with ecological conservation goals. The CREMA Policy represents a shift towards more inclusive and sustainable resource management practices.[326]

Tunisia: In the Jemna Oasis in Tunisia, local farmers occupied and reclaimed the land for the community after the 2011 revolution. Supported by civil society, leftist parties, and the Million Rural Women Association, they started managing it as a common property. They proceeded to establish the Association de Defense de Oasis de Jemna (ADOJ) to organise their work and actions and to handle the investment of revenues and implement development projects for the community, effectively commoning the oasis. Decisions are taken in an assembly/majlis in the central square in Jemna, with involvement from the entire community. This has led to significant improvements in the oasis' economic state as well as for the farmers, with more locals working in it and annual profits increasing, enabling them to reinvest them in local community development through renovating schools and community health centers.[327]

Thailand: The Baan Mankong Program offers another example of community-based development. This initiative transforms slum areas into collectively-owned housing cooperatives,

[324]"Buen Vivir: The Rights of Nature in Bolivia and Ecuador," Rapid Transition Alliance, December 2, 2018, https://rapidtransition.org/stories/the-rights-of-nature-in-bolivia-and-ecuador/.
[325]Munro Fraser and Thomas Mande, "The Commons in a Wellbeing Economy Paper Launch : Wellbeing Economy Alliance," *Wellbeing Economy Alliance*, January 27, 2022, https://weall.org/commons-in-the-wellbeing-economy-paper-launch.
[326]Ibid.
[327]"Growing the Alternatives Map," Greenpeace International, accessed September 5, 2024, https://maps.greenpeace.org/maps/gpint/alternativefutures/?id=20.

allowing residents to manage their own development and finance systems. The program has successfully supported the construction of thousands of homes across the country, demonstrating how collective ownership and management can enhance housing quality and community resilience. The Baan Mankong Program not only improves living conditions but also fosters community cooperation and empowerment.[328]

Brazil: The Brazilian Semiarid Articulation, a network of 3000 civil society organisations, works across semi-arid regions in the country to preserve the ecosystem and ameliorate its resilience, in an attempt to preserve traditional ways of life. The network focuses on sharing power and goods, giving priority to food and water security, and caring for the common environment in the region.[329]

The initiatives highlighted above from the Global South provide valuable examples of how alternative economic models and practices are not only possible and available, but offer viable solutions to contemporary challenges. By integrating traditional knowledge with innovative approaches, these initiatives demonstrate how principles of equity, sustainability, and social justice can be realised in practice. Whether through the Sufficiency Economy Philosophy in Thailand, Buen Vivir in Ecuador and Bolivia, or communal resource management and commoning, these examples offer insights into creating more resilient and equitable economic systems that prioritise environmental stewardship and community empowerment.

Participatory Governance and Co-Management Models: Insights from Traditional Governance Models

Participatory Governance

Participatory governance is rooted in deliberative and participatory democracy theories, which emphasises the active involvement of citizens in political decision-making processes. This approach seeks to enhance public reasoning, ensure diverse voices are heard, and improve the legitimacy and effectiveness of governance. By fostering more inclusive decision-making, participatory governance aims to create more equitable and responsive systems.

South Africa: At the Intsika Yethu Local Municipality (IYLM), participatory governance is exemplified through the use of ward committees and traditional councils. These bodies facilitate a democratic process where ward councillors and traditional leaders work together to engage the community in discussions and decision-making. The ward committees, led by councillors, hold regular meetings to deliberate on local issues, while traditional councils, operating under traditional leadership, contribute their insights and guidance. This collaborative approach helps in addressing community needs and improving local governance.[330]

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[328]Munro Fraser and Thomas Mande, "The Commons in a Wellbeing Economy Paper Launch : Wellbeing Economy Alliance," *Wellbeing Economy Alliance*, January 27, 2022, https://weall.org/commons-in-the-wellbeing-economy-paper-launch.
[329]"Growing the Alternatives Map," Greenpeace International, accessed September 5, 2024, https://maps.greenpeace.org/maps/gpint/alternativefutures/?id=14.
[330]Julius Jabavu Dantile, "Participatory Governance through Ward Committee and Traditional Council Structures at Intsika Yethu Municipality," University of the Witwatersrand, Johannesburg, 2020, https://wiredspace.wits.ac.za/items/993f0d65-44be-490c-9064-2e7ed1863e8b.

Despite facing some challenges, such as institutional discrepancies and occasional conflictual interactions, the participatory governance model at IYLM has generally proven effective. The involvement of traditional leadership within the municipal council has enhanced accountability, legitimacy, and trust among community members. This integration has been crucial in fostering a cooperative environment and improving the overall effectiveness of governance processes at the local level.[331]

Mexico: In Oaxaca, the governance of public good provision in poor communities through "usos y costumbres" – a form of indigenous participatory democracy – has been found to increase access to sewage systems, electricity, and education in a more effective manner than municipalities ruled by political parties.[332]

Co-Management Models

Co-management is a strategy that involves sharing the responsibility for natural resource management between local communities and government authorities. This approach can range from formal legal agreements to informal arrangements, and it is designed to achieve sustainable and equitable use of resources.[333] Co-management practices stress collaboration and the integration of local knowledge with formal governance structures. Several case studies across the Global South illustrate the application and impact of co-management models across different contexts:

Cambodia: In the Ratanakiri Province, participatory mapping and planning have been instrumental in helping local ethnic minority groups assert their traditional resource rights. By integrating traditional knowledge with formal governance frameworks, conflicts with concessionaires have been significantly reduced. This process highlights the value of combining indigenous knowledge with modern regulatory practices to achieve more equitable resource management.[334]

Vietnam: The Tam Giang Lagoon system has benefited from participatory planning and co-management practices designed to address issues related to shrimp ponds and net enclosures. National legislation supporting fisheries co-management has facilitated a cooperative approach involving local fishers and government authorities. This model demonstrates how legal frameworks and local participation can effectively manage and sustain aquatic resources.[335]

Lebanon: In Arsaal, the establishment of a Local Users Network (LUN) based on traditional Majlis practices has facilitated sustainable resource management and influenced local policy. This example demonstrates how integrating traditional practices with modern governance structures can support sustainable development even in remote and marginalised areas.

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[331]Ibid.
[332]Beatriz Magaloni, Alberto Díaz-Cayeros, and Alexander Ruiz Euler, "Public Good Provision and Traditional Governance in Indigenous Communities in Oaxaca, Mexico," *Comparative Political Studies* 52, no. 12 (July 12, 2019): 1841–80, https://doi.org/10.1177/0010414019857094.
[333]Stephen R. Tyler, *Comanagement of Natural Resources: Local Learning for Poverty Reduction* (IDRC, 2014).
[334]Ibid.
[335]Ibid.

Leveraging Local Traditions

Leveraging local traditions and models is essential for advancing a sufficiency-based economy. Traditional practices, such as Majlis, cooperatives, Gam'ya, and other community-driven models, offer valuable opportunities to promote these goals and enhance community resilience.

Majlis: Community Gathering Spaces for Development

The Majlis, also known as Diwanyah, is a traditional gathering space in some Arab cultures, which plays a pivotal role in community interaction and decision-making. Historically, Majlis spaces have facilitated dialogue and preserved cultural heritage, and these roles can be adapted to support a sufficiency-based economy. By convening discussions on sustainability initiatives and integrating traditional ecological practices with modern efforts, Majlis can contribute to environmental conservation and resource management. Additionally, Majlis spaces can serve as venues for sharing traditional knowledge related to agriculture, water management, and environmental stewardship, which are crucial for developing sustainable practices and adapting to climate change. The inclusive nature of Majlis promotes social cohesion and collective problem-solving, supporting local development projects aligned with the principles of a sufficiency-based economy.[336]

Collective Ownership and Social Equity

Cooperatives are collective ownership models that facilitate resource management and equitable benefit sharing. Cooperatives represent a practical model for enhancing local ownership and equitable resource management. In Morocco, initiatives like "MOURAFAKA" support cooperatives by providing strategic guidance and training, enabling them to thrive and contribute to local development.[337] Cooperatives, such as Dar Azaafarane, not only create jobs and generate income but also offer essential community services. Members participate in decision-making processes, which fosters a sense of ownership and ensures that the cooperative's operations align with community needs and values.[338] Examples of successful cooperative models include:

Argan Oil: Cooperatives in Morocco have promoted environmental conservation and social equity by involving local women in the production and commercialisation of argan oil. This model demonstrates the potential of cooperatives to support sustainable livelihoods and address social and environmental challenges.[339]

Transportation: In rural Egypt, transportation cooperatives have improved access to affordable and reliable transportation, addressing issues of service monopoly and inadequate infrastructure.

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[336]"Majlis, a Cultural and Social Space," UNESCO, accessed September 5, 2024, https://ich.unesco.org/en/RL/majlis-a-cultural-and-social-space-01076.

[337]Aomar Ibourk and Karim El Aynaoui, "Agricultural Cooperatives' Sustainability and the Relevance of Start-Up Support Programs: Evidence from Cooperatives' Level in Morocco," *Sustainability* 15, no. 4 (February 14, 2023), https://doi.org/10.3390/su15043460.

[338]Younes Taghouti and Noureddine Abdelbaki, "Cooperatives, Globalization and Local Development in Morocco: Case Study of a Grouping of Cooperatives in the Souss Massa Region," *African Scientific Journal* 3, no. 17 (April 2023), https://www.africanscientificjournal.com/index.php/AfricanScientificJournal/article/view/395/372.

[339]Zahir A. Dossa, "Cooperatives: A Development Strategy? An Analysis of Argan Oil Cooperatives in Southwest Morocco," *SSRN Electronic Journal* Euricse Working Paper No. 29/12 (March 14, 2012), https://doi.org/10.2139/ssrn.2018898.

This model illustrates the potential of community ownership to enhance essential services and foster economic resilience.[340]

Mutual Financial Support Systems:

Gam'ya, or Rotating Savings and Credit Associations (ROSCAs), are informal financial systems that facilitate collective savings and lending. These systems provide several benefits for a sufficiency-based economy, including enhancing financial resilience and funding local initiatives. ROSCAs offer a flexible financial resource that can be used for community projects or emergencies, thus strengthening community financial resilience and supporting self-reliance. They can also finance local projects such as infrastructure improvements or sustainable agriculture, ensuring that resources are allocated based on community needs.[341] Additionally, the mutual support and reciprocity inherent in ROSCAs enhance social cohesion and trust within communities, which supports collaborative efforts towards sustainable development.[342]

Traditional Knowledge and Practices: Integrating Cultural Wisdom

Integrating traditional knowledge into sufficiency-based economic models involves applying indigenous practices developed for managing environmental and economic challenges. Indigenous communities often possess valuable methods for managing climate variability and environmental resources. Incorporating these practices into local development strategies can enhance resilience and sustainability. Combining traditional knowledge with modern technologies creates a hybrid approach that leverages the strengths of both, supporting more comprehensive and adaptable solutions for local development challenges.[343] One example of this is Sinaweya in Egypt, a social enterprise working to safeguard Sina's ecosystem and local, traditional communities through enabling them to exercise their traditional knowledge in environmental and cultural heritage projects. Sinaweya aims to leverage traditional cultural practices to support livelihoods in the modern age, while working to preserve the Jabaleya tribe's cultural heritage.[344]

Commons-Based Models: Shared Resource Management

The concept of the commons involves community-based governance of shared resources, focusing on equitable access and sustainability. This model supports a sufficiency-based economy by letting communities manage natural resources like water through commons-based systems to promote sustainable use and prevent overexploitation and **fostering community responsibility** through encouraging shared responsibility and collective action, aligning with the principles of a sufficiency-based economy.[345]

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[340]Ehaab D. Abdou and Homi Kharas, "Regulatory Reforms Necessary for an Inclusive Growth Model in Egypt," *Brookings*, November 27, 2012, https://www.brookings.edu/articles/regulatory-reforms-necessary-for-an-inclusive-growth-model-in-egypt/.
[341]Andres Felipe Zambrano et al., "Rotating Savings and Credit Associations: A Scoping Review," *World Development Sustainability* 3 (December 2023): 100081, https://doi.org/10.1016/j.wds.2023.100081.
[342]Ibid.
[343]Nurul Syamimi Samsuddin et al., "The Role of Traditional Knowledge Due to Climate Change Adaptation and Economic Wellbeing in Island Communities: A Case Study of Terengganu, Malaysia," *Sustainability* 16, no. 10 (May 17, 2024), https://doi.org/10.3390/su16104218.
[344]"Growing the Alternatives Map," Greenpeace International, accessed September 5, 2024, https://maps.greenpeace.org/maps/gpint/alternativefutures/?id=16.
[345]Munro Fraser and Thomas Mande, "The Commons in a Wellbeing Economy Paper Launch : Wellbeing Economy Alliance," *Wellbeing Economy Alliance*, January 27, 2022, https://weall.org/commons-in-the-wellbeing-economy-paper-launch.

Integrating local traditions, participatory governance, and cooperative models offer valuable frameworks for advancing a sufficiency-based economy. Practices such as Majlis, cooperatives, Gam'ya, and commons-based governance, when combined with participatory and cooperative approaches, enhance community engagement, collective ownership, and mutual support. These models foster inclusive, accountable, and sustainable development, contributing to resilient and equitable economies.

V. Policy Recommendations

A. National Level

1. Incentivising Sustainable Practices and Local Food Security

Renewable Energy Subsidies: Implement targeted subsidies for small-scale, community-owned renewable energy projects. These subsidies should prioritise decentralised, off-grid systems that enhance energy access in rural areas. Decentralised community-powered renewable energy schemes can have positive impacts on local communities.Two examples of this are the above mentioned example of Brazil, where farming women organised to provide renewable energy and manage water systems, while promoting local self-sufficiency,[346] and the Philippines, where residents of Tacloban, devastated by Typhoon Haiyan, built portable solar panels to enhance local energy resilience and provide emergency power during blackouts.[347] Such projects could empower local communities by ensuring that they have control over the energy they produce and consume.

Sustainable Agriculture Techniques: Promote agroecology and permaculture practices that align with local ecosystems. Financial incentives, such as grants or tax breaks, could be provided to farmers adopting sustainable practices that enhance soil fertility, water conservation, and biodiversity. An example is the SEKEM initiative in Egypt[348], which has successfully integrated biodynamic farming methods to improve food security and provide employment for local communities. Programs like the Green Morocco Plan could be adapted to actually support low-input, sustainable farming methods that strengthen local food systems and resilience against climate change.

2. Encouraging Local Ownership and Participatory Governance

Community Land Trusts (CLTs): Establish CLTs to manage land and resources at the community level. For example, the Caño Martín Peña communities in Puerto Rico effectively use CLTs to manage communal land for sustainable agricultural practices, helping them secure

[346]santiago, "Community-Centred Energy: A Roadmap for Renewable Energy Transition," 350, August 7, 2023, https://350.org/community-centred-energy-a-roadmap-for-renewable-energy-transition/.
[347]Ibid.
[348]"About – SEKEM," SEKEM, accessed September 5, 2024, https://sekem.com/en/about/.

land tenure and avoid displacement in the face of gentrification and climate disaster.[349] These trusts would prevent land expropriation by ensuring that local communities retain ownership and control over their ancestral lands. CLTs could be used to manage land used for renewable energy projects, ensuring that profits and benefits are shared equitably among community members.

Participatory Resource Management: Introduce policies that mandate community participation in the planning and implementation of development projects. Tools like Participatory Rural Appraisal[350] (PRA) could be institutionalised to involve local communities, particularly marginalised groups such as women and indigenous peoples, in decision-making processes. Vietnam's Tam Giang – Cau Hai Lagoon exemplifies this.[351] In Morocco, Article 12 of the Constitution stipulates that civil society organisations "contribute, within the framework of participatory democracy, to the development, implementation, and evaluation of the decisions and projects undertaken by elected institutions and public powers." Relatedly, the Moroccan government's roadmap for a new development model (2021-2025) evidences the government's awareness of the need to improve women's and marginalised minorities' social participation. Indeed, the roadmap endeavours to "reinforce their rights in compliance with constitutional principles and religious jurisprudence."[352] These are positive commitments which must be implemented in practice.

Gender Justice in Resource Governance: Ensure the meaningful and effective participation and decision-making of women and gender-diverse people in participatory resource governance and community ownership models. Gender justice in decision-making often leads to more environmentally friendly policies[353] and better provision of public services.[354] It is crucial for resource management decisions to be inclusive and intersectional.

3. Capacity Development for Local Communities

Education and Training Programs: Implement training programs focused on environmental management, renewable energy technologies, and sustainable agricultural practices. The Barefoot College in India provides a successful model, training rural women in solar engineering, enabling them to bring electricity to their communities.[355] Similar programs could be established to empower local communities in Egypt and Morocco to engage actively in renewable energy projects and sustainable agriculture, ensuring they can benefit directly from such initiatives.

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[349]Mariangela Veronesi, Line Algoed, and María E. Hernández Torrales, "Community-Led Development and Collective Land Tenure for Environmental Justice: The Case of the Caño Martín Peña Community Land Trust, Puerto Rico," *International Journal of Urban Sustainable Development* 14, no. 1 (July 7, 2022): 388–97, https://doi.org/10.1080/19463138.2022.2096616.
[350]Philip Townsley, "Rapid Rural Appraisal, Participatory Rural Appraisal and Aquaculture," *Food and Agriculture Organization of the United Nations*, 1996, https://www.fao.org/4/w2352e/W2352E06.htm.
[351]Stephen R. Tyler, *Comanagement of Natural Resources: Local Learning for Poverty Reduction* (IDRC, 2014).
[352] La Commission Spéciale sur le Modèle de Développement, LE NOUVEAU MODELE DE DEVELOPPEMENT: Libérer Les Énergies et Restaurer La Confiance Pour Accélérer La Marche Vers Le Progrès et La Prospérité Pour Tous (Royaume du Maroc, April 2021) <https://www.csmd.ma/documents/Rapport_General.pdf>.
[353]Lena Ramstetter and Fabian Habersack, "Do Women Make a Difference? Analysing Environmental Attitudes and Actions of Members of the European Parliament," *Environmental Politics* 29, no. 6 (May 2, 2019): 1063–84, https://doi.org/10.1080/09644016.2019.1609156.
[354]"Women's Participation in Decision Making: Why It Matters," UNDP, accessed September 25, 2024, https://www.undp.org/ghana/news/womens-participation-decision-making-why-it-matters.
[355]"Barefoot College International," Barefoot College, March 23, 2017, https://www.barefootcollege.org/.

Legal and Financial Literacy: Provide local communities with legal and financial literacy programs to navigate contracts, agreements, and investment proposals. This capacity-building would enable communities to better advocate for their rights and negotiate fair terms with investors and government entities.

4. Transparency and Accountability in Investments

Regulatory Frameworks: Establish robust regulatory frameworks that require comprehensive Environmental and Social Impact Assessments (ESIAs) before any investment is approved. An example of this is the Kenyan Environmental Management and Coordination Act, which mandates public participation in ESIAs, helping to ensure that investments are environmentally sustainable and socially responsible.[356] Such regulations should be enforced to ensure that all stakeholders, including local communities, are informed and involved in the decision-making process.

Public Disclosure Laws and practices: Enforce stringent public disclosure requirements for all investment projects, particularly those involving natural resources. These laws should mandate that companies and government agencies publicly share information on project financing, environmental and social impact assessments (ESIAs), and community consultation processes. This transparency will help hold stakeholders accountable and prevent exploitative practices.[357] Notably, it is important to address the persistent implementation gap in this regard. While Moroccan law mandates public disclosure of ESIA and mitigation plans in the mining sector, no such disclosures have been made.[358]

Independent Oversight Committees: Establish independent oversight committees that include local community representatives, NGOs, and experts. These committees would monitor the implementation of projects to ensure compliance with environmental, social, and gender equity standards, providing regular reports to the public and government bodies.

5. Economic Models Aligned with Local Values, History, and Traditions

Adopting Traditional Models: Advocate for the adoption of traditional economic and governance models, such as the Majlis (traditional council assemblies) and Cooperatives. Some examples that could fall under this are the Mondragón Cooperative Corporation in Spain, which operates on principles of collective ownership and democratic decision-making, providing a viable alternative to conventional capitalist models.[359] Furthermore, SEWA (Self Employed Women's Association) in India is an excellent example of a feminist economic model that promotes equitable growth by empowering women through cooperative structures, ensuring they

[356]The Republic of Kenya, "Environmental Management and Co-Ordination Act," 8 (1999, revised 2012), https://eregulations.invest.go.ke/media/emca_1.pdf.
[357]"Right to Information - Our Priorities," Transparency.org, March 18, 2020, https://www.transparency.org/en/our-priorities/right-to-information.
[358] Resource Governance Index, Natural Resource Governance Institute (2021) https://resourcegovernanceindex.org/country-profiles/MAR/mining?years=2021
[359]"Introduction, MONDRAGON Corporation," MONDRAGON Corporation | MONDRAGON Corporation, May 14, 2019, https://www.mondragon-corporation.com/en/about-us/.

have access to resources and decision-making power.[360] Similar models could be adapted in Egypt and Morocco to promote community-driven development that respects local traditions and ensures equitable distribution of resources.

B. International Level

1. Reform of the Global Financial Architecture

At an international level, a transformation of the global financial architecture that redresses unequal power imbalances is needed to enable a global just transition. This involves unfair debt and surcharge cancellations, a reduction of interest rates for loans, halting the funding of fossil fuels, imposing carbon levies on polluting industries to fund transformative climate action, progressive taxation, and a redistribution of International Monetary Fund (IMF) Special Drawing Rights (SDRs).[361]

As advocated in a joint civil society report,[362] these actions are necessary to ensure that indebted countries are no longer trapped in export-oriented economic models and forced to sacrifice basic needs (health, education, climate mitigation and adaptation measures, etc.) to pay creditors.

2. Reforms in International Trade and Loan Agreements

Dismantling Neocolonial Economic Frameworks: It is essential to introduce reforms in international trade and loan agreements that dismantle neocolonial economic structures. For instance, canceling harmful, neoliberal trade deals and renegotiating other types of agreements such as the EU-Morocco Fisheries Partnership Agreement can ensure that such partnerships prioritise the needs and rights of local communities over external profits. Loan agreements and austerity policies by the International Monetary Fund (IMF) and the World Bank are items also worth revisiting, as those have been major causes for failure in the mandate of these institutions to promote international economic cooperation, perpetuating the neocolonial paradigms and further locking post-colonial Global South nations into debt. This undermines vulnerable countries' ability to invest in climate change adaptation and mitigation and affect vulnerable social groups, exacerbating inequalities and undermining public spending in social protection policies.

3. Reform of the international tax system

UN Framework Convention on International Tax Cooperation: Over the past decades, the global tax rules have been governed by the Organisation for Economic Co-operation and Economic Development (OECD), whose framework has served as a foundation for several bilateral treaties and domestic laws. It has, however, also served the vested interests of its members, many of which are tax haven countries. UN members voting against the convention are responsible for about 75% of revenue loss to tax abuse. The negotiation of a new convention

[360]"Self Employed Women's Association," accessed September 5, 2024, http://www.sewa.org/.
[361]Bronwen Tucker and Shereen Talaat, "At COP28, It's Time to Transform the Global Financial Architecture," *MENA Fem Movement for Economic, Development, and Ecological Justice* (blog), December 4, 2023, https://menafemmovement.org/at-cop28-its-time-to-transform-the-global-financial-architecture/.
[362] Global Debt and Climate Working Group, Debt Demands and Debunking Distractions for Climate Action, June 2024 <https://debtjustice.org.uk/wp-content/uploads/2024/05/Debt-demands-for-climate-action_June-24.pdf>

for international tax cooperation under the UN – where countries vote on an equal footing, differently than the OECD – will ensure a space for low and middle income countries in policy and decision-making for international tax standards. Nonetheless, it also demands leadership and transparency from European countries to negotiate in good faith by not blocking the adoption of progressive commitments, which aim to contribute to tackling, among others, the transnational issues of cross-border tax abuse and illicit financial flows.

4. Ending Neocolonial and Extractivist Practices

There is a need for an end to the neocolonial extractivist paradigm and the Global North's neocolonial practices. The Global North must put an immediate stop to its purposeful underdevelopment of the Global South and let its peoples self-determine their own futures. The Global North should stop funding extractivist investments in a pursuit of growth and profit and instead turn to self-sufficiency and building solidarity-based economic relations with other countries, specifically those in the Global South.

5. Ensuring a Just Transition to Renewable Energy

Building on the above, it is a global responsibility to ensure a just transition for all from fossil fuels to complete dependence on renewables. This transition must be equitable, gender-just, and account for historical context. As the Global North is historically responsible for climate change and emits 92% of excess global CO_2 emissions,[363] it bears responsibility to fund the Global South's transition in a just and equitable manner beneficial to its local communities. This must be in the form of unconditional climate finance that does not add to the Global South's debt burdens. A just transition is one that prioritises national and sub-national needs, including in energy access and socio-economic/environmental rights in producing communities. This can be done in tandem with contributing to the global energy transition and decarbonisation efforts, including through increased production of renewable energies. From a global justice perspective, the least polluting Global South countries, which bear the brunt of climate change, should not be made to pay for this transition. Therefore, the only just climate funding is one that does not further lock these countries into debt or prioritise the interests of foreign investors.

It is also very important to note that, without the right safeguards and accountability mechanisms (enshrining and implementing participatory governance processes, requiring the development and publication of Environmental/Social Impact Assessments and Mitigation Plans) any financing mechanism can perpetuate an unjust transition at the local level.

6. Community Governance of Foreign Investments

Environmental and Social Impact Assessments (ESIAs): Require European and all foreign companies investing in the Global South to conduct comprehensive ESIAs that go beyond the minimum legal requirements. An example is the Equator Principles, a risk management framework adopted by financial institutions for determining, assessing, and managing environmental and social risk in projects. However, this framework falls short of fulfilling its purported intention. A similar framework should be generated by countries and communities most affected by financial institutions' policies, oriented towards their needs and demands. This framework should be developed through a participatory community process and ensure diverse

[363] Jason Hickel, "Quantifying National Responsibility for Climate Breakdown: An Equality-Based Attribution Approach for Carbon Dioxide Emissions in Excess of the Planetary Boundary," *The Lancet Planetary Health* 4, no. 9 (September 1, 2020): e399–404, https://doi.org/10.1016/S2542-5196(20)30196-0.

and meaningful representation. It should include mandatory reporting on gender impacts and community consultations that enable local communities to actively decide to accept or reject projects, along with a process to monitor implementation where local communities can halt the project at any time after holding community caucuses, ensuring that investments prioritise local development over resource extraction.

7. International Support for Sufficiency-Based Economies

Technology Transfer and Financial Aid: Recommend increased international support for developing countries transitioning to sufficiency-based economies. For example, the Green Climate Fund (GCF) should provide financial resources to developing countries to help them mitigate and adapt to climate change and is, in theory, a beneficial concept.[364] However, it has pledged billions of dollars that have not yet been delivered. Such initiatives should be binding with required follow-through from contributors. This support could be directed towards projects that promote local, sufficiency-based economies, ensuring that developing countries can pursue sustainable development pathways without relying on extractive industries.

8. Climate Finance and Payment of Climate Debt/Reparations

Climate Debt and Reparations: Advocate for the recognition and payment of climate debt owed by developed countries to the Global South. This could involve mobilising resources for non-reimbursable climate finance initiatives that support adaptation and mitigation efforts in vulnerable regions. An example is the Climate Justice Alliance's call for climate reparations, which emphasises the need for compensation to frontline communities in the Global South who have contributed the least to climate change but are suffering its worst impacts.[365] It could also include addressing the climate and debt crises in a comprehensive manner, with measures seeking to solve both interlinked issues. For example, political proposals aiming to cancel the sovereign debts of countries in the Global South in order to expand domestic fiscal space to address the challenges faced with the climate crisis, especially the reconstruction costs after extreme weather events.

These policy recommendations aim to address both local and international challenges, promoting sustainable, equitable, and community-driven development in Egypt and Morocco. By implementing these strategies, it is possible to shift away from neocolonial practices and towards a more just and sustainable future.

VI. Conclusion

This report has thoroughly examined the critical need for a fundamental shift from extractivist economic models to a feminist and just economic transition. Through a detailed analysis of European investments in Egypt and Morocco, we have illuminated how current extractivist practices perpetuate neocolonial dynamics, exacerbating both environmental degradation and

[364]"Homepage," Green Climate Fund, accessed September 5, 2024, https://www.greenclimate.fund/home.
[365]"Just Transition," Climate Justice Alliance, May 16, 2018, https://climatejusticealliance.org/just-transition/.

social inequalities. These investments often prioritise profit over people and the environment, resulting in adverse impacts on local communities and ecosystems.

In contrast, the exploration of community-owned and participatory models has demonstrated promising alternatives. Initiatives such as community-centric renewable energy projects and innovative resource management practices showcase the effectiveness of integrating local knowledge with equitable distribution of benefits. These models not only address immediate energy and resource needs but also foster long-term sustainability and social cohesion. The People Power Solar Cooperative, for instance, exemplifies how collective ownership can democratise access to renewable energy, while local resource management practices in countries like Kyrgyzstan and Ghana highlight the benefits of incorporating traditional knowledge into modern governance frameworks.

The urgency of transitioning to feminist, just, and sustainable economic models cannot be overstated. This shift involves rethinking development priorities to prioritise equity, sustainability, and community empowerment over extractive practices. Frameworks such as the Sufficiency Economy Philosophy in Thailand and Buen Vivir in Ecuador and Bolivia offer valuable insights into how economic activities can align with principles of ecological balance and social justice. These approaches emphasise moderation, local self-sufficiency, and respect for indigenous knowledge, providing a roadmap for creating more resilient and equitable economies.

To affect this transformative shift, decisive action is required from policymakers at both national and international levels. National policymakers should focus on implementing supportive policies that encourage community ownership, participatory governance, and sustainable practices. This includes fostering environments where traditional knowledge and local innovations can thrive and contribute to broader development goals. Internationally, there is a pressing need to reform trade and investment agreements to ensure they support social and environmental justice. This entails revising policies to mitigate the negative impacts of extractive investments and prioritise support for grassroots projects that embody feminist and just economic principles.

Moreover, policymakers must engage with and support local communities in designing and implementing these changes. By promoting frameworks that underline equitable growth and environmental stewardship, and by investing in initiatives that reflect community needs and values, policymakers can help drive a more inclusive and sustainable global economy. This approach addresses immediate challenges and lays the groundwork for long-term social and environmental resilience.

In conclusion, the transition from extractivist models to a feminist and just economic framework represents a crucial step towards achieving a global, equitable, and sustainable transition. By embracing community-centric models and integrating principles of equity, sustainability, and social justice, we can move towards an economic system that respects both people and the planet. The recommendations presented in this report offer a comprehensive path forward,

calling for concerted efforts from policymakers, communities, and international actors to ensure a just transition and foster a more sustainable and equitable global economy.

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