

An aerial photograph of a lush green agricultural landscape. The image shows a central water channel or irrigation system that branches out into several rectangular plots of land. The plots are filled with vibrant green crops, likely rice or similar water-intensive plants. The water channel is bordered by a line of palm trees and other tropical vegetation. The overall scene is a well-maintained and productive agricultural area.

FUNDING FOR ADAPTATION TO CLIMATE CHANGE

SALAD-SUSTAIN Conference | April 2024

FINANCING GAP



Analysed by WWF (2020)

Data: UNCTAD, 2014. "World Investment Report: Investing in the SDGs: An Action Plan."

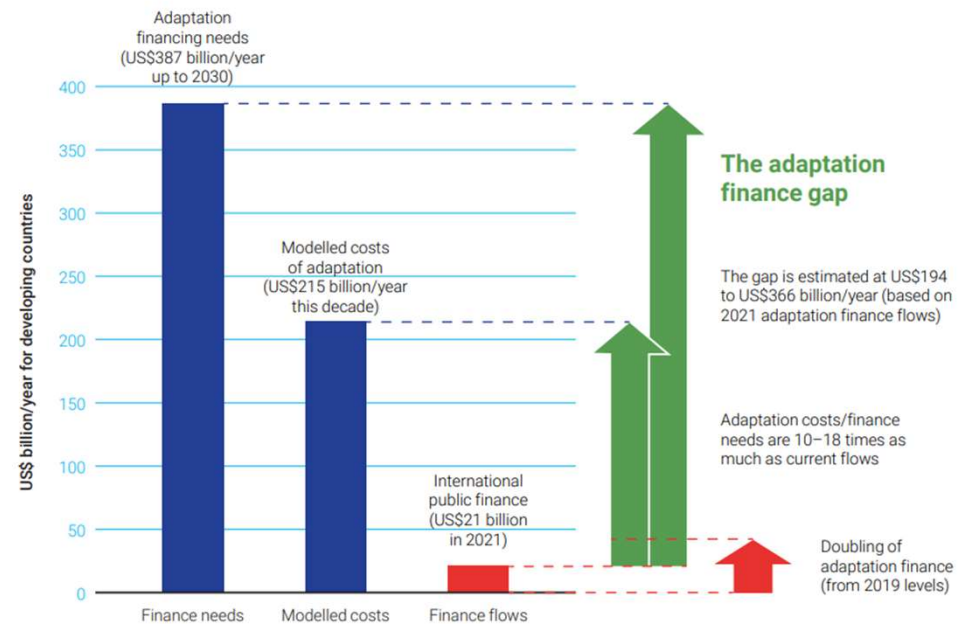
FINANCING GAP



THE GLOBAL ADAPTATION FINANCE GAP



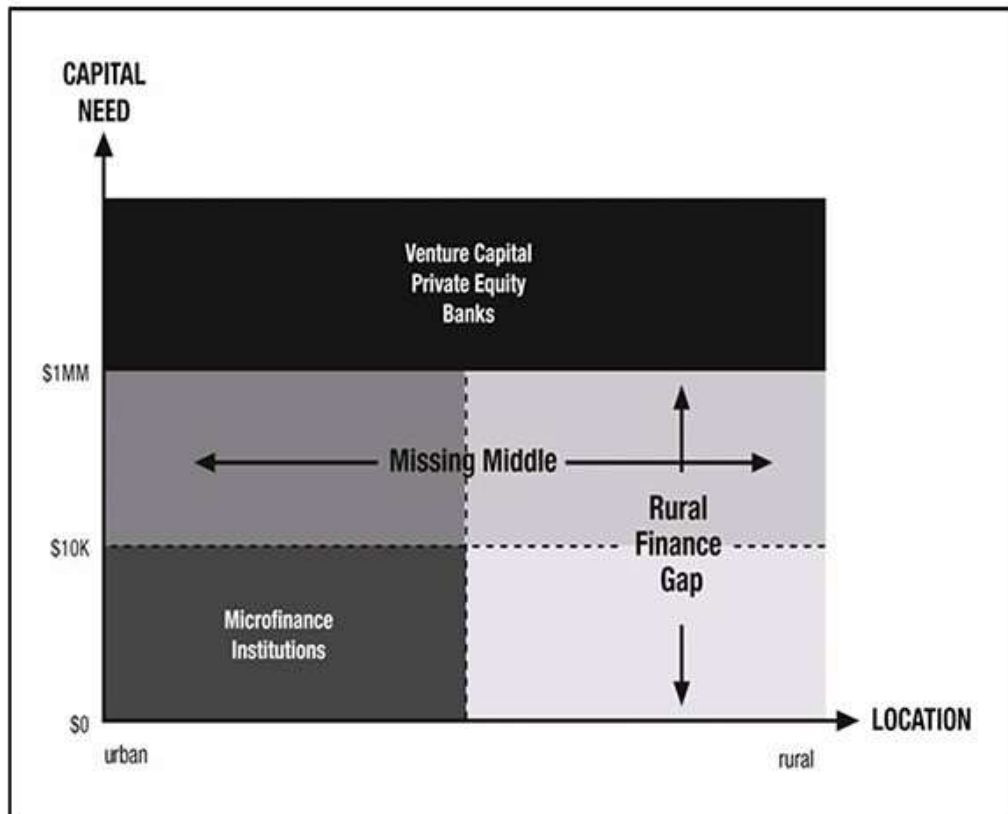
Figure ES.4 Comparison of adaptation financing needs, modelled costs and international public adaptation finance flows in developing countries



Note: Values for needs and flows are for this decade, while international public finance flows are for 2021. Domestic and private finance flows are excluded.

[Adaptation Gap Report 2023](#) | [UNEP - UN Environment Programme](#)

THE MISSING MIDDLE



THIS "MISSING MIDDLE" EXISTS BECAUSE THE COST OF MAKING AN INVESTMENT IS ROUGHLY INDEPENDENT OF THE DEAL SIZE. COMBINED WITH THE RISK PROFILE, THE MISSING MIDDLE, PARTICULARLY IN THE AGRI-FOOD SECTOR IN THE DEVELOPING WORLD, HAS BEEN WIDELY UNDERSERVED.

[Impact Investing for the Missing Middle: Funding Smallholder Farmers and Agriculture \(ssir.org\)](https://ssir.org)



Global Financial Capital

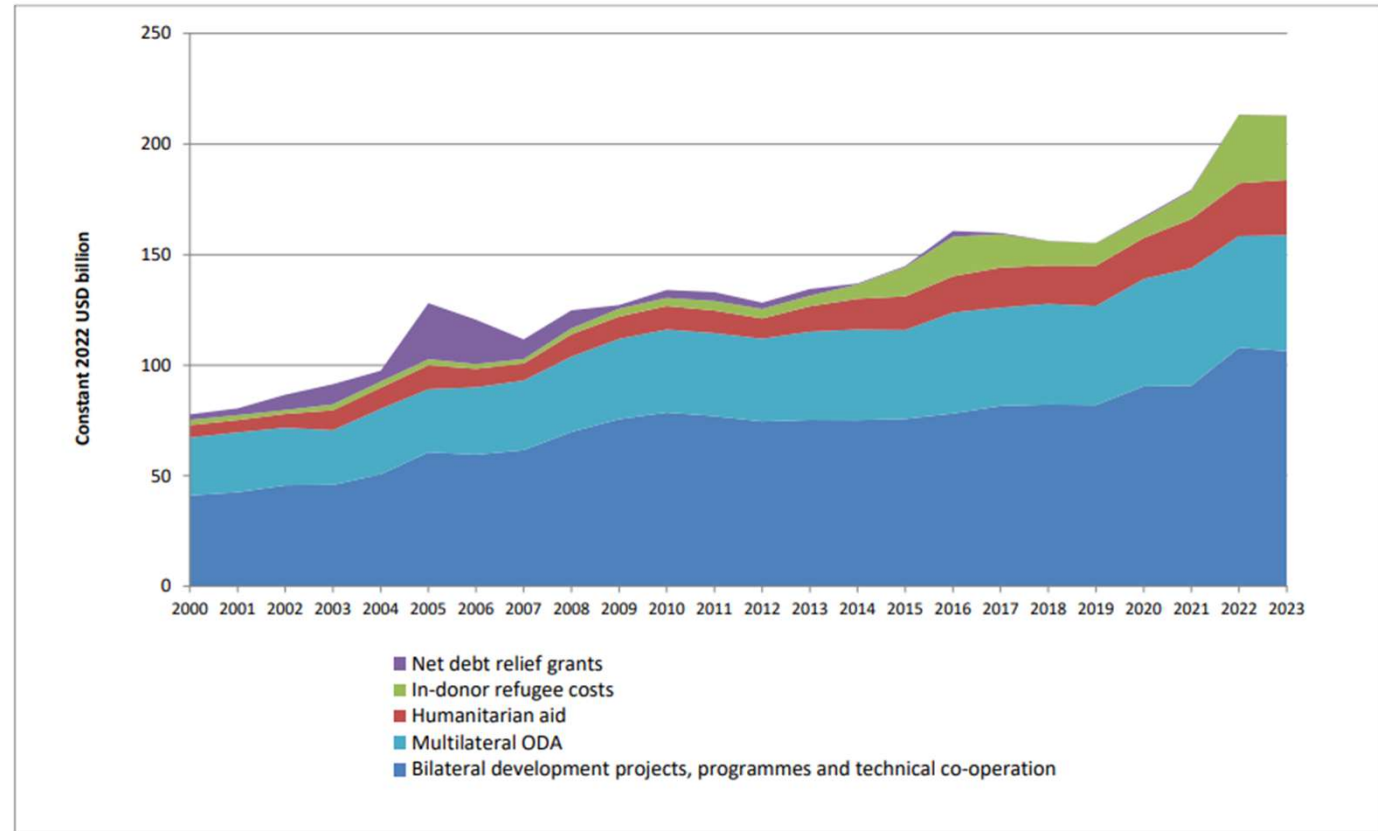
Derived from Various Sources and Analysed by WWF (2020)

- *Global Debt: Institute of International Finance (IIF), 2019*
- *Global Stock Market: Deutsche Bank, 2019*
- *Global Sovereign Funds: Prequin, 2019*
- *Private Equity: Prequin, 2019*
- *Global Philanthropy Report: Harvard University's John F. Kennedy School of Government, 2018*
- *Official Development Assistance: Organisation for Economic Co-operation and Development (OECD), 2019*

ODA GROWTH

COMPONENTS OF DAC MEMBER COUNTRIES NET OFFICIAL DEVELOPMENT ASSISTANCE

Data for 2023 are preliminary



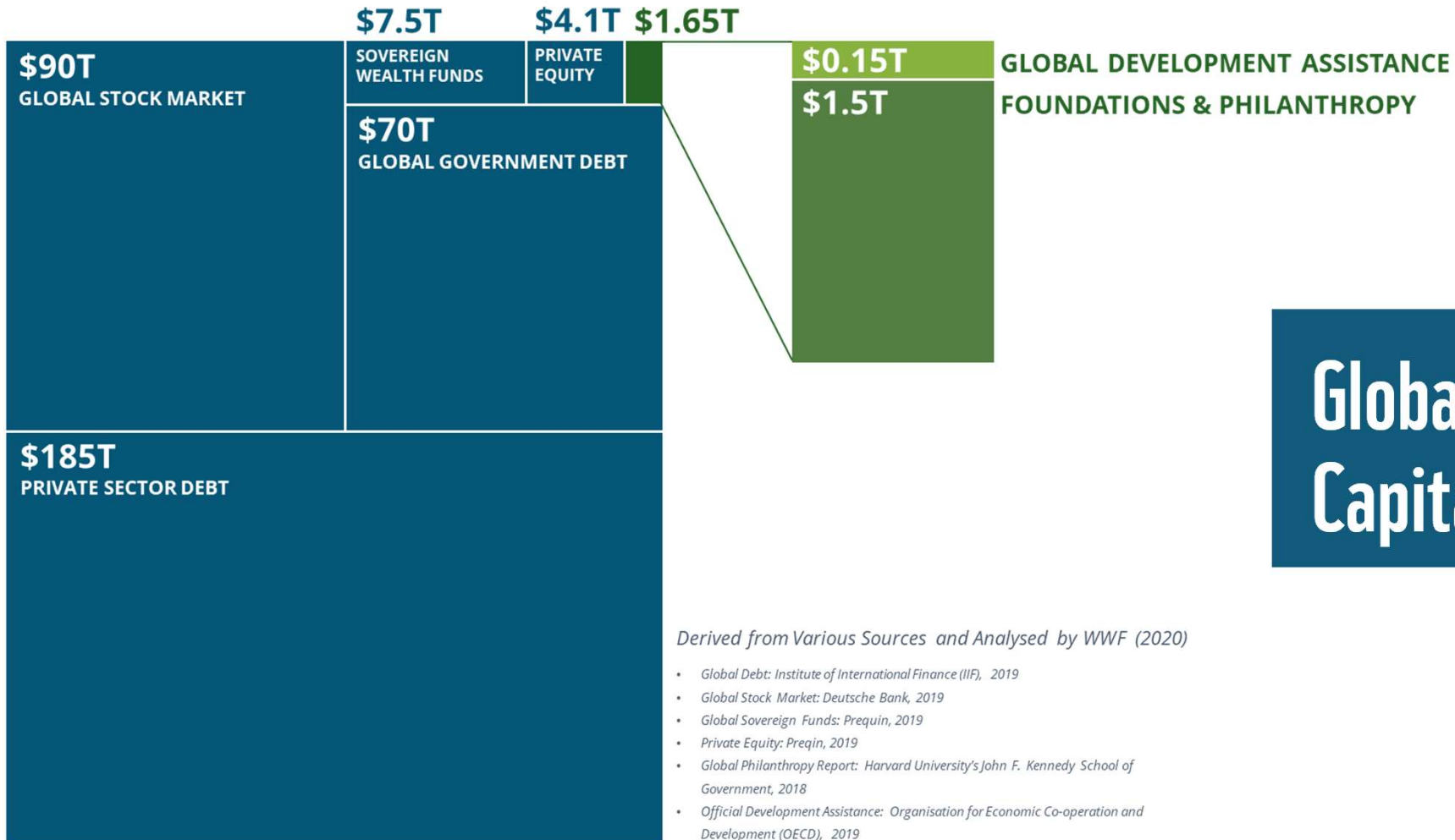
[ODA-summary-2023.pdf \(oecd.org\)](#)



Global Financial Capital

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Global Financial Capital

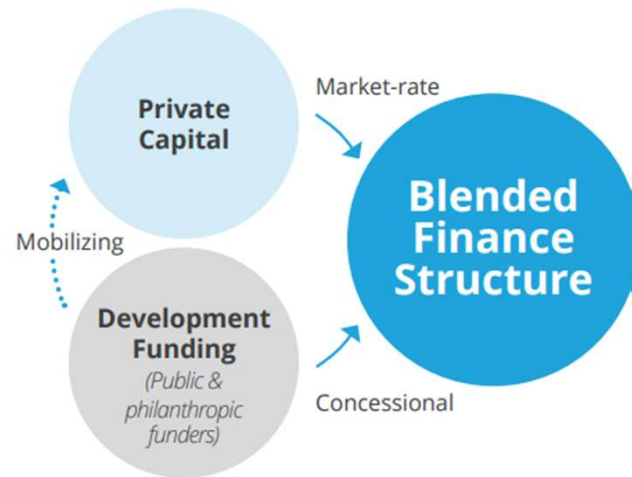
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- Official Development Assistance: Organisation for Economic Co-operation and Development (OECD), 2019

“ Blended finance is the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development.

BLENDED FINANCE

Typical blended finance mechanics and structures



EXAMPLE STRUCTURES

Private equity or debt funds with concessional public or philanthropic funding attracting institutional investment



Bond or note issuances with concessionally priced guarantees or insurance from public or philanthropic funders



Grant funding from public or philanthropic funders to build capacity of investments to achieve expected financial and social return



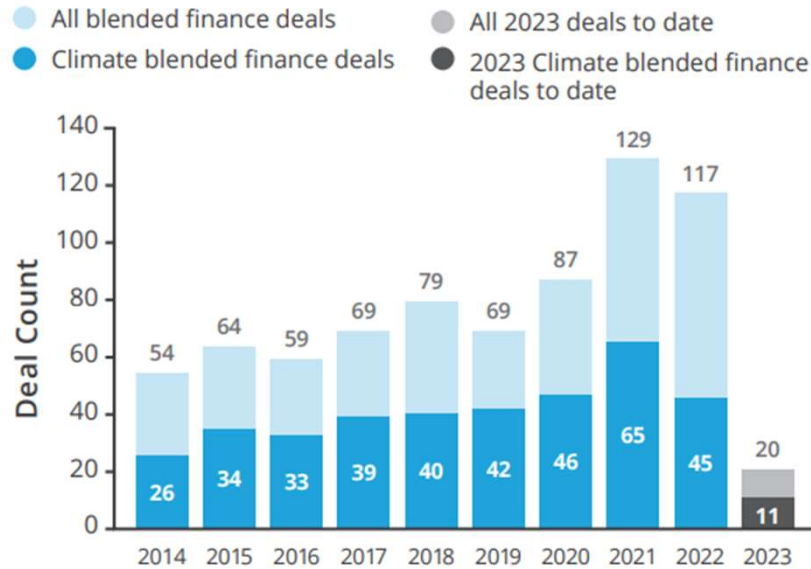
Grant funding from public or philanthropic funders to design or structure projects to attract institutional investment



BLENDED FINANCE

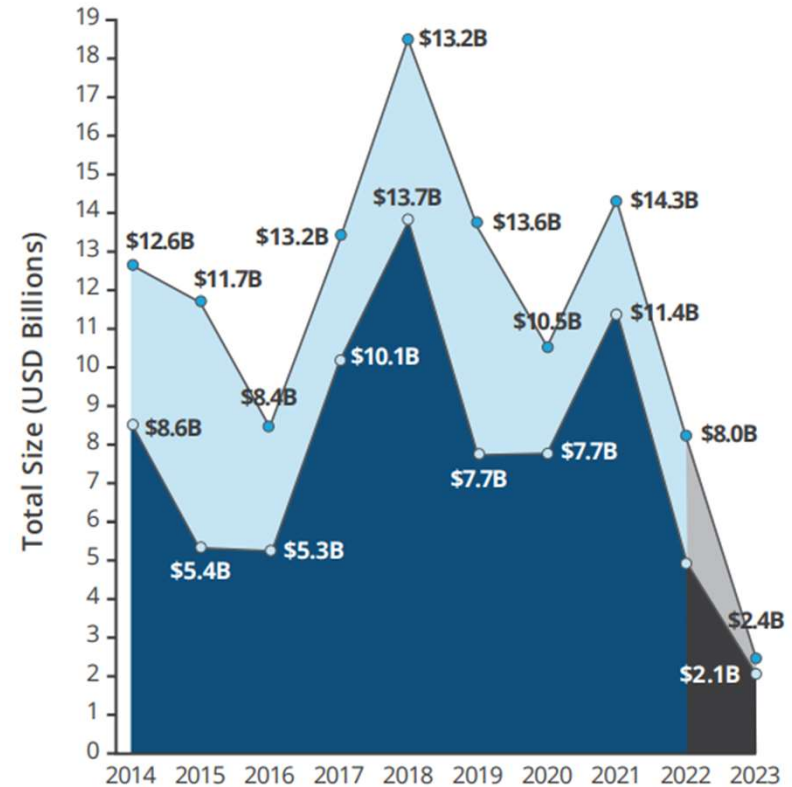


TRANSACTION COUNT, TOTAL BLENDED FINANCE MARKET VS CLIMATE BLENDED FINANCE MARKET, 2014 – October 2023



AGGREGATE ANNUAL DEAL VOLUME, TOTAL BLENDED FINANCE MARKET VS CLIMATE BLENDED FINANCE MARKET, 2014 – October 2023

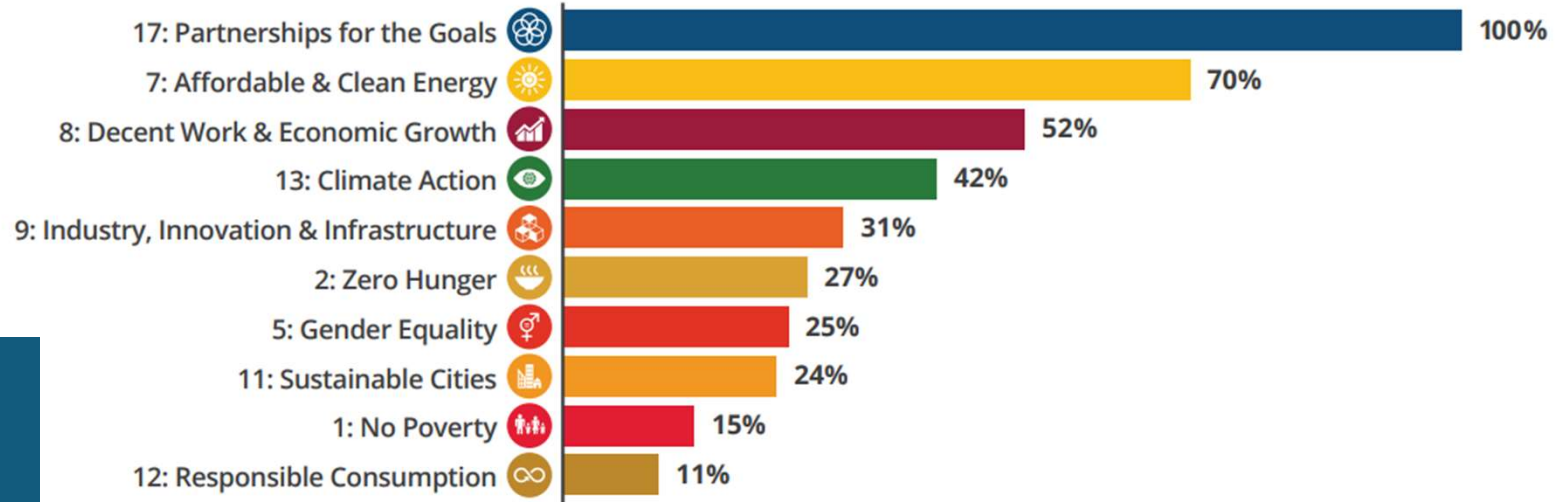
- Climate financing
- 2023 Climate financing to date
- Total financing
- 2023 Total financing to date



[State of Blended Finance 2023, climate blended finance, state of blended finance - Convergence Resources | Convergence](#)



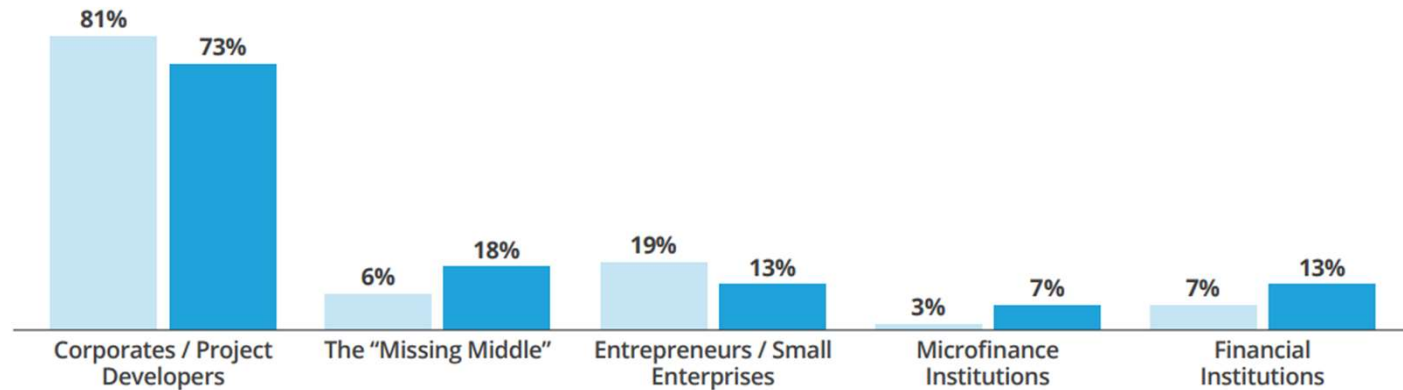
Alignment between blended finance transactions and the SDGs



SGD OVERVIEW

Direct recipients of climate finance blended finance transactions, 2017-2022

● 2017-2019 ● 2020-2022



[State of Blended Finance 2023](#), [climate blended finance](#), [state of blended finance - Convergence Resources](#) | [Convergence](#)

TRANSACTION COSTS



THE CREATION OF NATIONAL GREEN BANKS CAN HELP TO ADDRESS THE DIFFERENT CHALLENGES AND FOCUS ON:

- Designing and implementing interventions
- Creating cost-effectiveness and performance
- Leveraging their local expertise by developing innovative finance and market development solutions
- Providing TA, to underwriting and then aggregating small-scale loans that can then be sold to the private sector.

National green banks may be created as standalone institutions, or where possible, integrated within DFIs in order to leverage existing infrastructure.

For example, the Climate Financing Facility (CFF) is a specialized lending facility and green bank housed within the Development Bank of Southern Africa (DBSA) designed to increase private investment in climate related infrastructure projects in the Southern African Development Community

[State of Blended Finance 2023, climate blended finance, state of blended finance - Convergence Resources | Convergence](#)

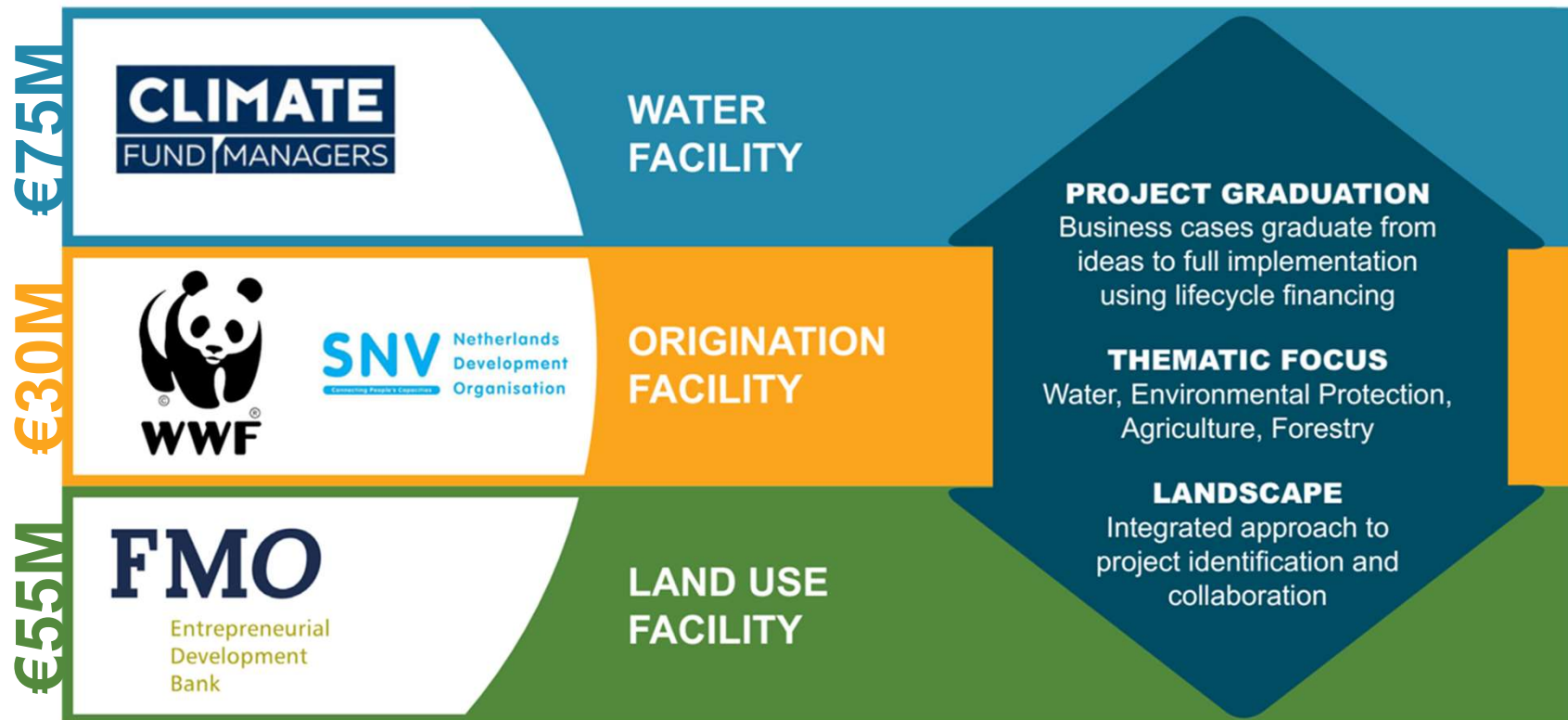
NATURE SOLUTIONS

BANKABLE NATURE SOLUTIONS

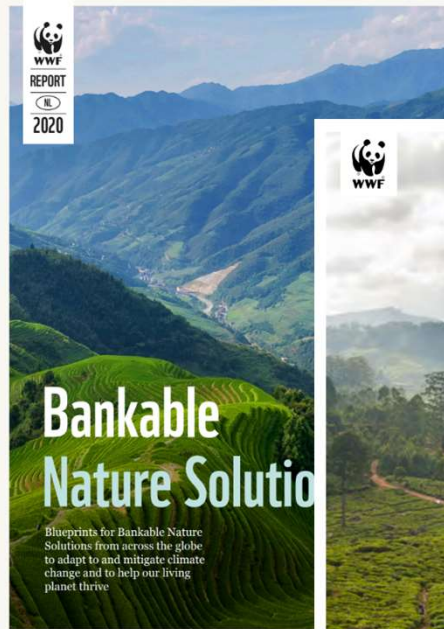


NATURE SOLUTIONS

THE DFCD STRUCTURE



LEARNING & KNOWLEDGE



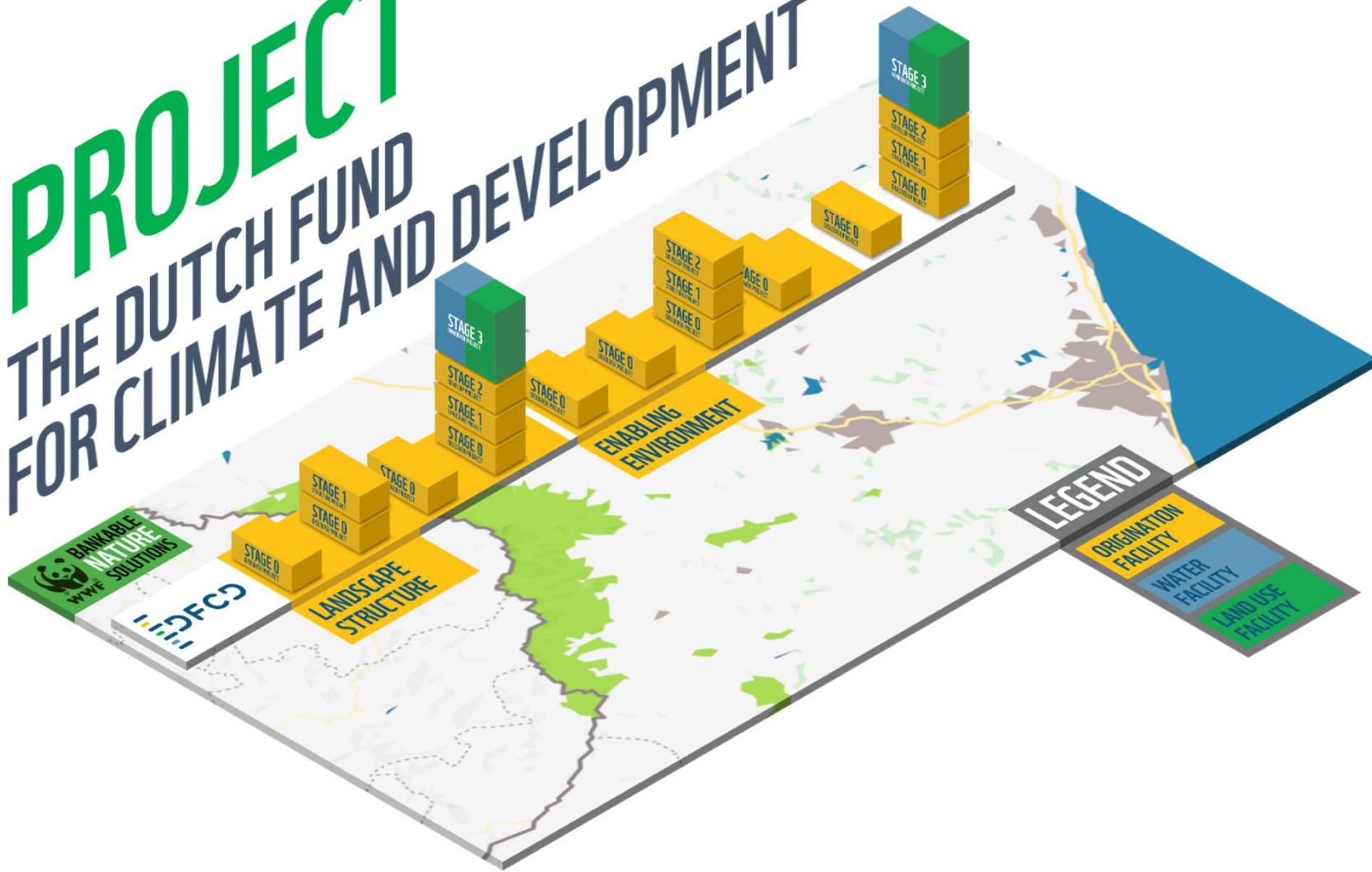
LANDSCAPE

THE DUTCH FUND FOR CLIMATE AND DEVELOPMENT

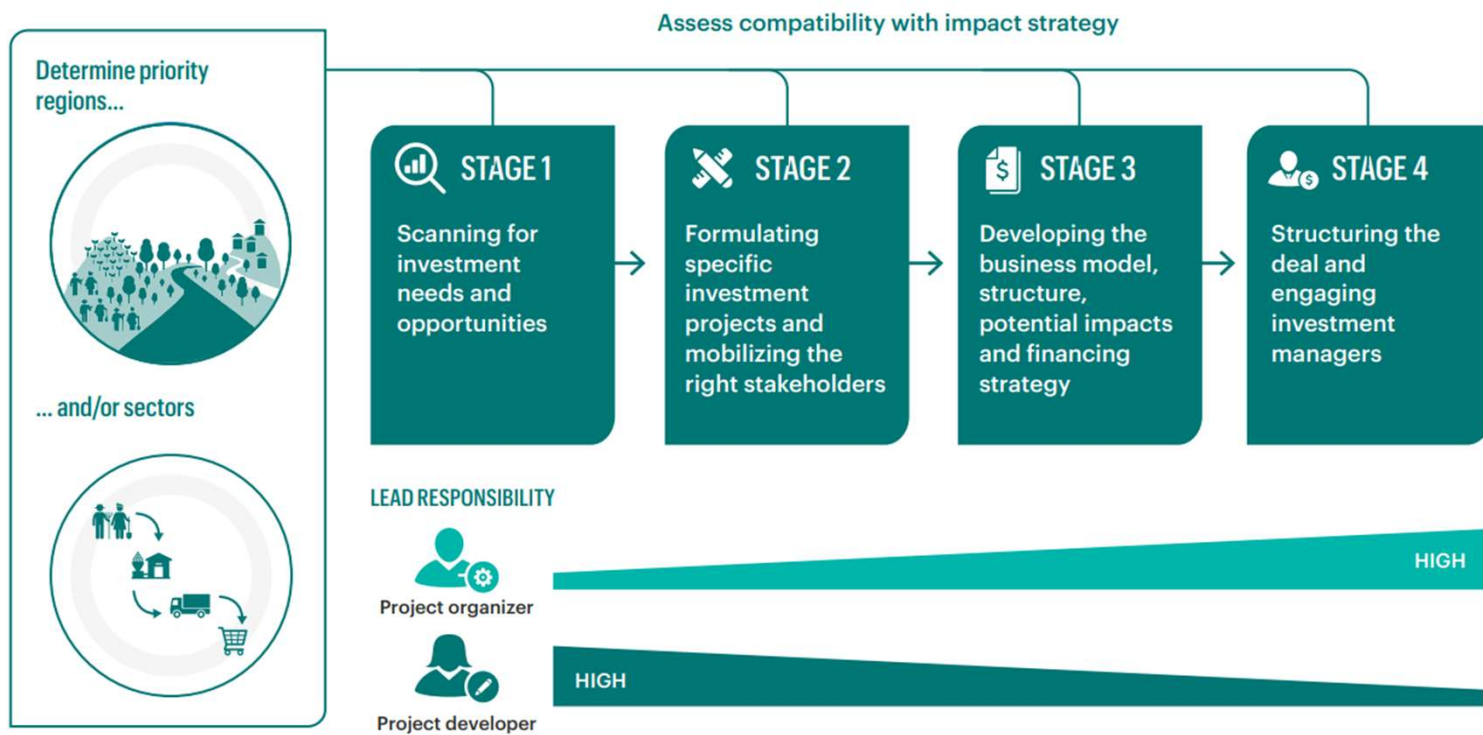


PROJECT

THE DUTCH FUND FOR CLIMATE AND DEVELOPMENT



OUR PROCESS



[WWF IDH Toolkit final 0322.pdf \(idhsustainabletrade.com\)](#)

OUR PROCESS

| | WHO | WHAT | EXAMPLE |
|--|---|---|---|
|  Project organizer | Person or entity responsible for organizing projects | Convenes, coordinates, and supports project design | Organizations such as IDH and WWF |
|  Project developer | Person or entity who sets up or owns a business, taking (financial) risk | Main risk taker and project driver, most likely receiver of finance | Supply chain company, farmer cooperatives, concession owner, service provider |
|  Investor | Organization that provides capital as debt (loan) or equity (ownership) with ROI expectations | Provides capital so that project developer can realize project ideas, thereby creating impact | Impact investors, banks, development finance institutions |
|  Project stakeholder | All other stakeholders (to be) involved in the project | Incurs positive or negative impact, supports or hinders investment success | (Smallholder) farmers, buyers, government, suppliers |

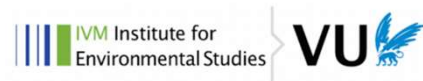
QUINOA IN MOROCCO



Saline Farming Assessment Mission Morocco

Commissioned by the Netherlands Enterprise Agency

>> Sustainable. Agricultural. Innovative.
International.



ASSESSING THE BANKABILITY OF SALINE AGRICULTURE PROJECTS: QUINOA IN MOROCCO

Master Thesis by Mischa Heer (2764129)



1st Supervisor: Prof. Dr. ir. Pier Vellinga
2nd Supervisor: Dr. Kate Negacz & Pim van Tongeren
Word Count: 11962
Date: 30th June 2023

STAGE 1

Scanning for investment needs and opportunities

Stage 1 is a rapid assessment of the landscape to efficiently identify the investment needs and potential landscape finance projects that can contribute to sustainability in the landscape. Firstly, the toolkit covers how to assess all the issues and their (root) causes, key baselines, landscape actors and potential interventions. Secondly, it looks at how project ideas can be formulated, and how potential investors that fit the landscape strategy can be identified.

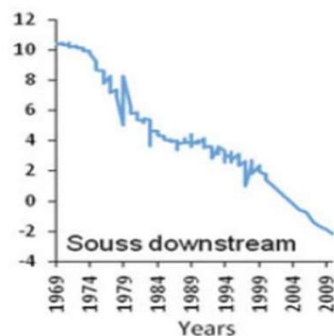
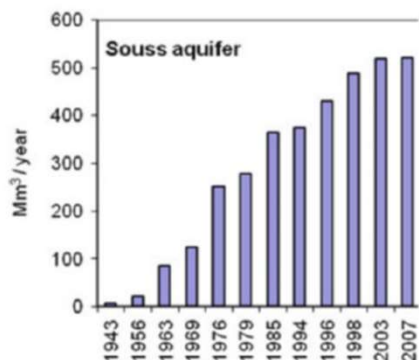
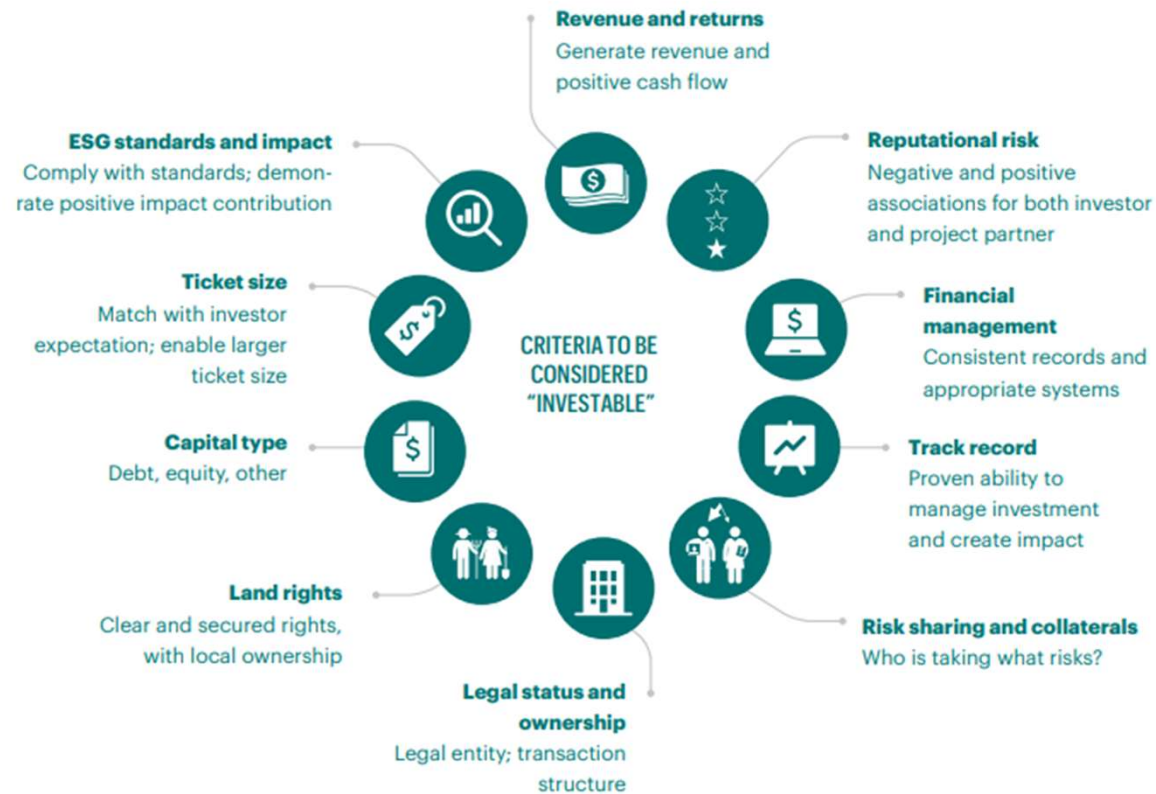


Table 11. Overview of some potential crop based on the work of The Salt Doctors, to be used in a pilot in Morocco.

| | Crop | Family | yield potential range (ton/ha) | harvest in days after (trans)planting | ECe (in dS/m) max for optimal yield | ECe (in ppm*) max for optimal yield |
|--------------|------------------------|---------------|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| proven crops | Salicornia | Amaranthaceae | 20-60 | 50-90 | 20 | 16000 |
| | beetroot (red beet) | Amaranthaceae | 25-35 | 60-80 | 12 | 9600 |
| | chard ("spinach beet") | Amaranthaceae | 10-40 | 30-40 | 12 | 9600 |
| | sugar beet | Amaranthaceae | 40-80 | 150-200 | 12 | 9600 |
| | potato | Solanaceae | 30-60 | 100-120 | 8 | 6400 |
| | carrot | Apiaceae | 20-70 | 90-120 | 8 | 6400 |
| | cauliflower | Brassicaceae | 20-40 | 60-80 | 6 | 4800 |
| | pakchoi | Brassicaceae | 30-50 | 25-30 | 6 | 4800 |
| | lettuce | Asteraceae | 24000 (heads/ha) | 30 | 6 | 4800 |
| | cabbage | Brassicaceae | 40-60 | 50-70 | 4 | 2560 |
| onion | Amaryllidaceae | 20-40 | 80-110 | 4 | 2560 | |

[Saline Farming Assessment Mission Morocco \(rvo.nl\)](http://rvo.nl)

BANKABILITY REQUIREMENTS



STAGE 2

Formulating specific investment projects and mobilizing the right stakeholders

Stage 2 is about engaging with the right stakeholders and mobilizing their commitment. The toolkit covers how to translate project ideas into landscape finance projects that have the potential to become bankable or investable according to general investors' requirements.

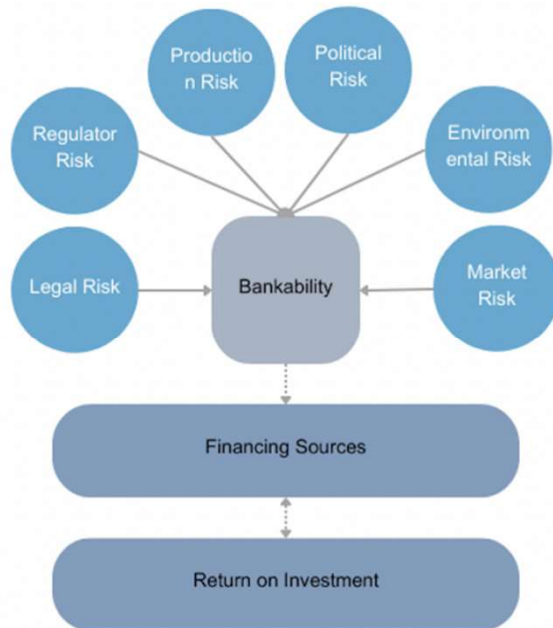


Figure 1: Overview of the bankability framework. Compiled from: Lessambo (2022), Zhu & Chua (2018), and expert interviews.

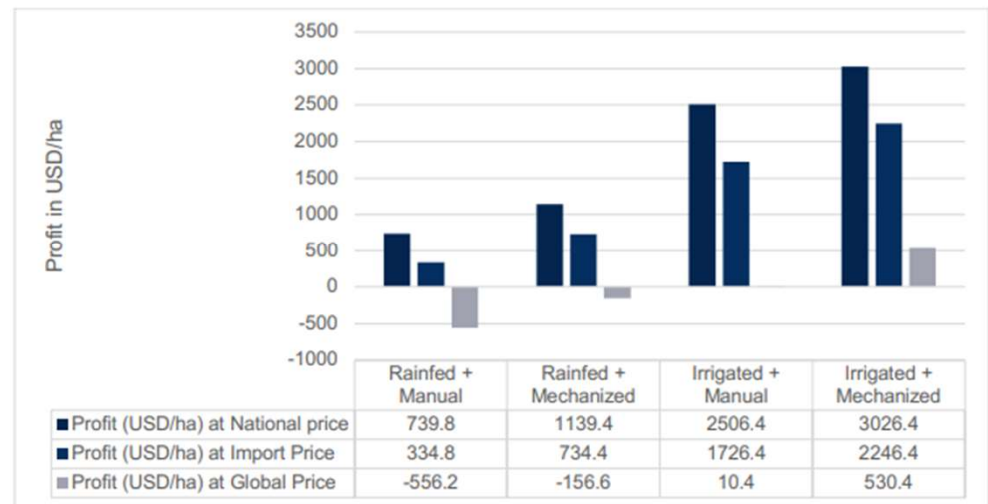


Figure 4: Profitability of quinoa in US dollars per ha. (bulk quinoa seeds) for different scenarios under different price considerations

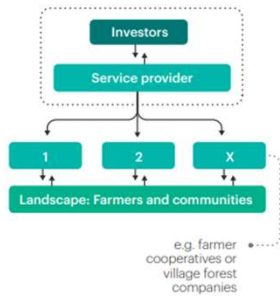


STAGE 2

Formulating specific investment projects and mobilizing the right stakeholders

Stage 2 is about engaging with the right stakeholders and mobilizing their commitment. The toolkit covers how to translate project ideas into landscape finance projects that have the potential to become bankable or investable according to general investors' requirements.

ENTRY POINT 2: FINANCING SUSTAINABILITY VIA SERVICE PROVIDERS

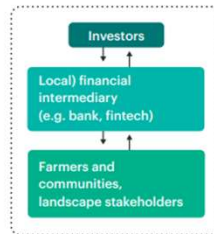


Financing intermediaries (such as fintech companies or value chain service providers) to support multiple small-scale farmers, farmer cooperatives or communities to transition to sustainable farming practices. For example, financing the transition towards fewer and higher quality fertilizers and seeds by channeling capital or in-kind agricultural inputs through service providers, fintech companies and farmer cooperatives to efficiently reach smallholder farmers and/or other landscape stakeholders.

Type of financing involved

Working capital finance, long-term debt (farm level) or equity (fintech level)

ENTRY POINT 5: (LOCAL) FINANCIAL INTERMEDIARIES

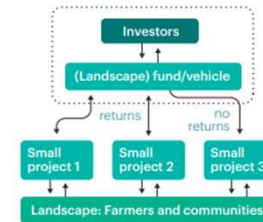


Financing of landscape projects through local financial intermediaries such as a bank, which can be locally based, or a fintech provider.

Type of financing involved

Debt

ENTRY POINT 6: LOCAL FUND STRUCTURE



A dedicated landscape finance fund to finance multiple projects within the landscape. This can take multiple forms including, for example, an endowment fund type of structure that allows returns generated from investments to be used as grants for non-return-based landscape needs such as conservation activities (surveillance, patrolling, etc.).

Type of financing involved

Debt and, depending on the type of fund, grants

THE FINANCIAL 'LANDSCAPE'



- Conventional equity & bond instrument
- ESG funds
- Portfolio screening
- Thematic impact funds & notes
- Green bonds & loans
- Impact private equity
- Impact venture capital
- Social impact bonds
- Outcome-driven loans
- Seed capital donations
- Charitable donations



STAGE 3

Developing the business model, structure, potential impacts and financing strategy

Stage 3 provides guidance and tools to detail out all the information and analyses investors require before considering the bankability of a landscape finance project. This includes financial projections, risk assessment, impact potential and more.

THE FINANCIAL REQUIREMENTS FOR SUCCESSFUL QUINOA PRODUCTION IN SALINE AGRICULTURE:

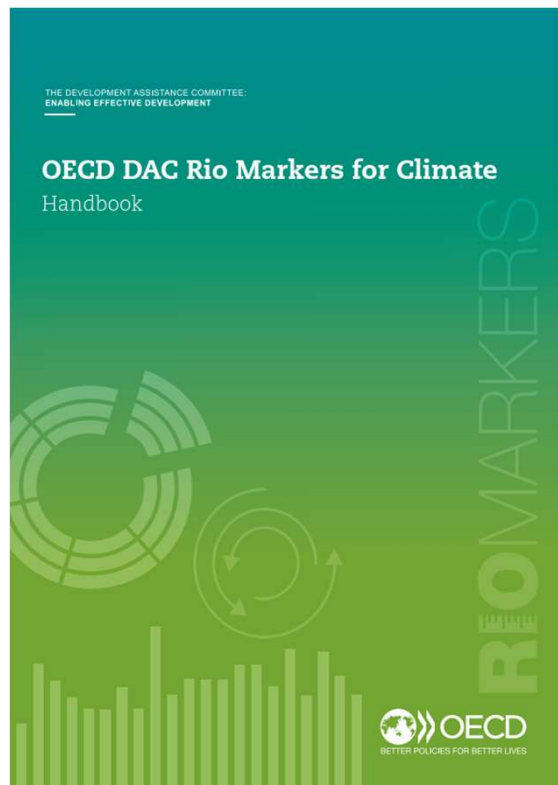
| | PILOT | SCALE/ REPLICATE |
|--------------------------------|-------|------------------|
| • LAND ACQUISITION | | |
| • SEEDS AND IRRIGATION SYSTEMS | | |
| • LABOR COSTS | | |
| • MARKETING EFFORTS | | |
| • ONGOING OPERATIONS | | |
| • RISK MANAGEMENT | | |



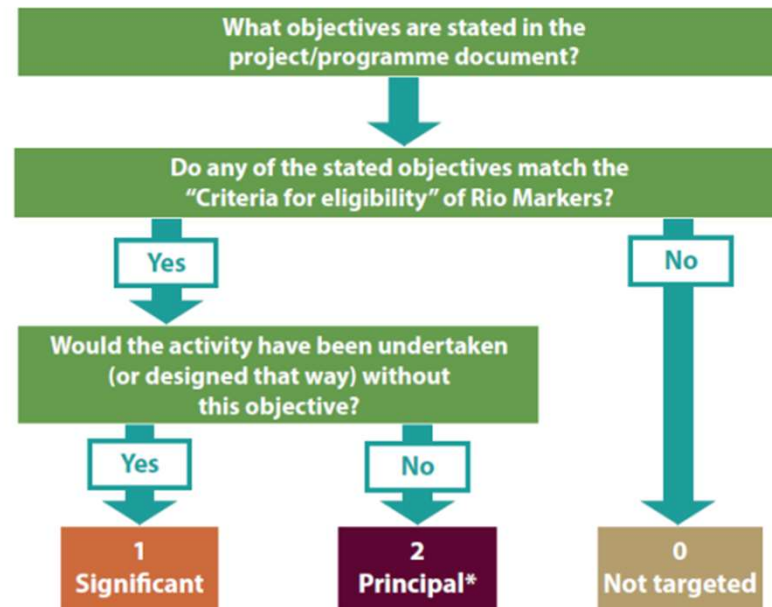


| Name | Description | Countries | Ticket Size | Criteria | Website |
|-------------------------------|--|--|---|---|---|
| Agri-business Capital Fund | The ABC Fund invests in entities of the agri-business value chain and in financial intermediaries which have the potential to improve livelihoods of farmers in developing countries. They offer debt, guarantees and equity financing. US\$50 million fund size | Africa, Caribbean and Pacific Countries | \$200k-800k (loans, sub-debt/ equity) | <ul style="list-style-type: none"> producers of primary agricultural products; input suppliers such as manufacturers or distributors of seeds; companies that produce, maintain or operate storage facilities; service companies, traders, veterinarians, mechanization; aggregators and/or processors of primary agricultural products; logistics companies that transport and handle primary agricultural goods; processors of secondary agricultural goods/ food products. >At least two years of activity >Revenue: >€80,000 Collateral coverage >50% of loan amount (including company and other types of collateral) >EBITDA / total revenue: >5% | https://www.agri-business-capital.com/looking-for-funding.html |
| IFAD | IFAD's work in the region is guided by the organization's Strategic Framework. Its four thematic priorities for the region and by individual country strategic opportunities papers (COSOPs), reflecting governments' own priorities in rural development and prepared in consultation with governments, donors and other partners. The thematic priorities encompass: (i) a new focus on managing land and water resources for poverty reduction, including the key role of empowerment of community-based resource management groups; (ii) achieving a breakthrough in rural micro-finance by building partnerships with leading organizations in the area and collaborating with commercial banks and major regional financial institutions; (iii) tackling rural unemployment by using the results of ongoing action research to identify effective, targeted interventions and; (iv) linking smallholder farmers and the rural poor with international markets by assisting MENA countries in developing export markets for non-traditional products and by working with existing private sector or NGO initiatives in this area. | Global. Focus on NENA (Near East and North Africa) Region | | Various programmes | https://www.ifad.org/documents/3874670339181759/P/A/LocationMap_Focus_area_NorthAfricaRegion.pdf?046c7c3896c4a931919136c79877e04c |
| Climate Resilient Africa Fund | CRAF is a venture capital fund that invests in early-stage businesses that enable agri-food systems to adapt to climate change and become more climate-resilient, and/or reduce nature loss by generating financial value from healthy natural ecosystems. | Africa | Up to USD1.5M | Invest in robust agriculture, bio-tech and NBS and nature & climate intel | https://craa.fund/ |
| GroFin | GroFin's business model is based on our commitment to provide our clients with support beyond finance. A deep understanding of the factors that drive SME success is central to this model, as is the steadfast belief that SME success leads to impact success. Since its inception in 2004, GroFin has invested in 788 SMEs and sustained nearly 77,960 jobs. | 14 Africa and middle east countries including Egypt | | They focus on small businesses operating in education, healthcare, agri-processing, manufacturing and key services (water, energy and sanitation). | https://www.grofin.com/about-grofin/ |
| Algebra Ventures | Algebra Ventures is Egypt's leading tech Venture Capital firm. We have been partnering with bold and resilient founders building transformative companies since 2016. While our entrepreneurs are doing the heavy lifting, we support by providing multi-stage capital, assisting with strategy and operations as well as helping build star teams. We are a diverse and experienced team of founders, geeks and operators who are passionate about the positive impact of tech on people's lives in the MEA region. | MEA region | | Tech focussed but they have invested in the agri sector | https://www.algebra-ventures.com/ |
| Flat6Labs | Flat6Labs is the MENA region's leading seed and early stage venture capital firm, currently running the most renowned startup programs in the region. Annually, Flat6Labs invests in more than 100 innovative and technology-driven startups enabling thousands of passionate entrepreneurs to achieve their daring ambitions and ultimately becoming their institutional co-founders. | | Flat6Labs provides a wide range of investment ticket sizes ranging from \$50K to \$500k, supporting startups through their early journeys from Pre-Seed all the way to Pre-Series A stages. | Various seed and funds (with minor ag focus) | https://www.flat6labs.com/about/ |
| Mediterrania Capital Partners | Private Equity firm focussing on growth investments in African SMEs and Mid-Cap companies. | Support companies located in North Africa and Sub-Saharan Africa countries that are seeking to consolidate their business locally and expand at a regional level. We focus our investments in countries characterised by consumption-driven economies, pro-business policies, rapid urbanisation trends, favourable demographics and growing consumer classes. | €10 million and €35 million Larger projects are done through co-investments of up to €100 million per project. | > They invest in consolidated and growing African companies with an annual turnover of €60 million to €600 million and expansion strategies into North and Sub-Saharan African markets. | https://www.mcpa3ip.com/about-us/ |

RIO MARKER CHECK



Decision tree for scoring an activity against a Rio marker



**Assigning a double principal score (e.g. to both mitigation and adaptation) to the same activity should be considered only upon explicit justification.*

[Revised climate marker handbook_FINAL.pdf \(oecd.org\)](#)

RIO MARKER CHECK

| Sector/CRS purpose codes | Mitigation | Adaptation | Rationale for scoring | Examples of qualifying activities |
|-----------------------------------|------------|------------|--|---|
| AGRICULTURE - 311 | | | | |
| All purpose codes in category 311 | 0, 1 or 2 | 1, 2 or 0 | <p>Mitigation Scoring against mitigation may be justified when farming methods decrease GHG emissions or increase carbon sequestration.</p> <p>Adaptation Agricultural development measures can, in many ways, increase resilience to the impacts of climate change, through the use of climate-resilient crops or diversifying production to be able to better cope with the impacts of climate change.</p> | <p>Mitigation:</p> <ul style="list-style-type: none"> • Livestock projects that reduce methane or other GHG emissions (manure management with biodigestors, etc.) (mitigation score 1). • Increase and maintenance of the CO₂-binding capacity of soil and vegetation (mitigation score 1). • Use of energy saving machineries, design of eco-efficient, carbon neutral systems etc. (mitigation score 2). <p>Adaptation</p> <ul style="list-style-type: none"> • Sustainable climate-resilient farming methods (adaptation score 2). • Promoting diversified agricultural production to reduce climate risk (e.g. growing a mix of different crops and different varieties of each crop) (adaptation score 1 or 2). • Promoting heat and drought resistant crops and water saving irrigation methods to withstand climate change (adaptation score 2). • Cultivate and distribute climate-resilient seeds (adaptation score 2). • Set up/use of early warning communications system for agricultural purposes (e.g. communications/IT solutions for monitoring crops, precipitation, temperature etc. to avoid crop loss through climate-related stress or disaster) (adaptation score 1 or 2). |

OTHER KEY ASPECTS








The Africa Climate Risk Insurance Facility for Adaptation - ACRIFA

What is the Africa Climate Risk Insurance Facility for Adaptation?

The Africa Climate Risk Insurance Facility for Adaptation (ACRIFA) is leading the charge to demonstrate and develop insurance as a vital tool to foster climate adaptation, resilience, and sustainable development within Africa's agricultural sector.

The Africa Climate Risk Insurance Facility for Adaptation aims to raise an initial \$1 billion in concessional, high-risk capital and grants to stimulate the development and uptake of targeted climate insurance solutions to be delivered through primary insurers and regional reinsurers across Africa.

What problems does the Africa Climate Risk Insurance Facility for Adaptation aim to solve?

Agricultural producers and small and medium enterprises (SMEs), despite being the primary engine for growth and livelihoods in Africa, often struggle to access much-needed capital. Furthermore, African agriculture SMEs are vulnerable to climate change and have limited access to insurance.



SMEs supporting Africa's agri-food system face an annual financing gap of over \$100 billion



There is a 97% insurance protection gap of African smallholder producers

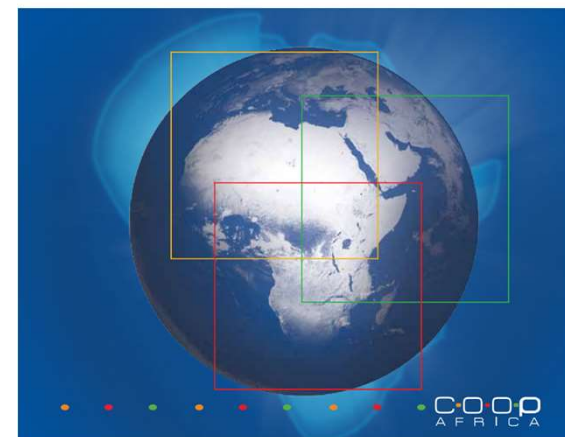


Climate change caused more than \$2.5 billion in economic damage in Africa in 2022



Coop^{AFRICA} Working Paper No.3 African cooperatives and the financial crisis

Emma Allen and Sam Maghimbi





REFLECTIONS: SUPPLY SIDE

PROBLEM STATEMENTS:

- Too many projects get stuck in the pilot phases
- Lack of financial focus loses the interest of investors
- Projects tend to be too small for most investors

SOLUTIONS:

- We need to share learnings and knowledge about both successful and unsuccessful projects
- Long term planning and exit planning is key
- Get financial experts onboard early
- Know your audience at every pitch
- Find innovate and creative solutions to aggregate deals
- Identify and partner with intermediaries



REFLECTIONS: DEMAND SIDE

PROBLEM STATEMENTS:

- Projects are often too small financially

- Risk does not match the appetites of investors

SOLUTIONS:

- Work through local MFIs and intermediaries
- Support the creation of cooperatives (with Grants)
- Support the creation of new local Green Banks

- Create and use guarantees and first loss instruments
- Work with local experts to understand and manage the various risks

CONCLUSIONS

1

We need to bring the knowledge and expertise to the landscape level to co-create solutions with all stakeholders

2

We need to push DFIs and Governments to launch more guarantee and first loss instruments that can be used at the local deal level

WITH ALL INTERVENTIONS, WE NEED TO ENSURE THAT WE ARE NOT OPTIMIZING FOR ONE IMPACT, BUT RATHER WE ARE VIEWING EACH PROBLEM AND SOLUTION WITH A BIODIVERSITY, CLIMATE, SOCIAL AND FINANCIAL LENS

" The biggest benefit of finance, in my view, is to provide opportunities to people, in the sense that in a world where there is no finance, the only way to start a company is to be born rich or to have saved for a long time.

In a world where finance works well, the people with talent can start firms and reach their dreams without waiting to either have saved the money, or be lucky and receive it from their parents.

Once you create this opportunity, you will have the most talented people take advantage of those opportunities, which favors growth, which favors a good allocation of resources and, ultimately, innovation.

Luigi Zingales, Professor of Finance University of Chicago's Booth School of Business

together possible™



Working to sustain the natural world for the benefit of people and wildlife.

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