

Transformative narratives for climate action: win-win strategies linking climate and sustainable development goals

- Win-win strategies that meet climate and economic goals can provide the basis for transformative narratives that are key to catalysing climate action
- Sustainable social and technological innovation solves multiple urban problems
- Win-win strategies co-designed for and by poor communities improve global resilience
- Win-win strategies for climate adaptation can significantly leverage public finance by producing co-benefits, for example, in coastal adaptation projects
- Policy for scaling up win-win strategies should address knowledge sharing, collaboration with domestic and international networks, and capacity building needs



Win-win strategies that meet climate and economic goals can provide the basis for transformative narratives that are key to catalysing climate action

What are transformative narratives and why are they important?

Transformative narratives are increasingly recognised as key to catalysing societal change relevant to sustainable development and climate action. Indeed, several prominent global actors have recently emphasised the role of transformative narratives in catalysing individual and collective action for economic, social and environmental goals. For example, the United Nations Sustainable Development Goals (SDG) Action Campaign, tasked with supporting advocacy and public engagement in the SDG implementation globally, has emphasised the need for a new narrative global development. Similarly, the G20 has pointed to the need to develop a new narrative of economic development describing an open, dynamic, and entrepreneurial economy, while also being fair, locally rooted and one in which everybody feels valued (G20 Insights, 2017).

Transformative narratives tell positive, empowering stories

Emerging research has pointed to several aspects of narratives that make them effective in enabling transformations. Transformative narratives are effective in crystallising action, when they: i) support and resonate with aspirations, ideals and desires; ii) are engaging and empowering, so that individuals feel that participation is voluntary and constructive; iii) resonate with moral authority e.g., fairness, responsibility, or inclusiveness (Pahl-Wostl et al. 2007). A transformative narrative tells a positive story, by articulating a vision of “where we want to go” and provides solutions for attaining this vision, rather than articulating problems to be avoided (Tàbara et al. 2018).

Climate win-win strategies as a source of new transformative narratives for climate action

In the climate domain, transformation refers to fundamental institutional and system changes needed to align development to sustainability (Tàbara et al. 2018). Historically the dominant narrative regarding climate action has emphasised global “top-down” solutions of global binding agreements on emission reductions. The 2009 Copenhagen Conference of Parties, which failed to achieve such a global agreement, illustrated the serious challenges associated with this narrative. Indeed, achieving global collective action for, e.g., a global carbon price, is exceedingly difficult, particularly when such measures are perceived by countries to be against their individual short-term interest. The recent 2015 Paris Agreement witnessed the emergence of a different narrative emphasising voluntary contributions to climate action.

The Paris Agreement, based on so-called Intended Nationally Determined Contributions (INDC) from each country, acknowledges the difficult trade-offs countries may face between economic growth and climate action, and puts a greater emphasis on “bottom-up” solutions that resonate with country interests and goals.

Win-win strategies are a source of transformative narratives in the climate and sustainability domains

In this context, climate win-win strategies provide a promising source of transformative narratives for climate action. Climate win-win strategies provide short-term economic benefits, while achieving mitigation or adaptation. Such win-win strategies thus provide solutions, and opportunities, that may resonate with the economic interests of a range of stakeholders. Successfully implemented win-win strategies provide examples from which a transformative narrative, telling a story of actions reconciling economic and climate adaptation and mitigation goals with sustainable development, can be developed.

Win-win strategies were assessed through Stakeholder Dialogue Workshops

A core aim of the GREEN-WIN project is to identify, develop and critically assess precisely such climate win-win strategies. Indeed, research on climate win-win strategies provides a means for defining the scope of transformative narratives for climate action. Through analytical work as well as a series of Stakeholder Dialogue Workshops, the GREEN-WIN project has developed a set of transformative narratives of such climate win-win strategies. In the Dialogue workshops participants first articulated a vision of a desired future, i.e. “where we want to get to”, in a given domain of interest, e.g. urban sustainability or rural solutions to energy poverty. Win-win strategies were then identified and assessed based on their potential to contribute towards attaining the vision.

It is important to note that such strategies occur at a range of different levels. For example, macroeconomic climate win-win strategies, i.e. green growth, may be available at the national level, or across multiple countries. Win-win strategies may also be available at municipal levels or for individual businesses or households. Thus, transformative narratives may also orient themselves to actors at various levels.

In the remainder of this Policy Brief, we elaborate three Transformative Narratives that have been developed based on win-win strategies identified in the GREEN-WIN Dialogue workshops (see Box 1). We conclude the Policy Brief with a discussion of policy needs for scaling up win-win strategies, i.e. through promoting knowledge sharing, collaboration with domestic and international networks, and capacity building.

Box 1. Transformative narratives based on win-win strategies and examples identified in the GREEN-WIN project.

Transformative narrative	Example win-win strategies
<p>Sustainable social and technological innovation solves multiple urban problems</p>	<ul style="list-style-type: none"> ➤ Mobike bike-sharing service that reduces urban pollution, congestion, and solves the “last-mile problem”; started in Shanghai and now covers over 160 cities worldwide ➤ GREENCOAT, a Turkish start-up, produces long-lasting, façade-covering material for vertical and horizontal gardens ➤ Climate-Win is an interactive knowledge and collaborative exchange platform that links consumers and providers of green products and services in Barcelona
<p>Win-win strategies co-designed for and by poor communities improve global resilience</p>	<ul style="list-style-type: none"> ➤ Water purification using wetlands in South Africa ➤ Agriculture storage dome combined with community-owned and solar-powered electric vehicles in Tanzania ➤ Public-private partnership to improve climate resilience of sugar cane growers in Africa ➤ Integrated solar energy solutions for lighting and well-water pumping in communities in India ➤ Smart decentralised wastewater treatment system to improve water quality in the Danube catchment
<p>Win-win strategies for climate adaptation can significantly leverage public finance by producing co-benefits, for example, in coastal adaptation projects</p>	<ul style="list-style-type: none"> ➤ In the Netherlands, allowing room for the river through dike relocation and restoring natural systems reduces flood risk and generates revenues through attracting tourists to improved environmental quality. ➤ In the Maldives, raising a newly reclaimed island (Hulhumale) 2m above sea-level increases flood protection and generates revenues through leasing new land.

Sustainable Social and Technological Innovation Solves Multiple Urban Problems

Urban win-wins build social capital

Urban win-win strategies identified in the GREEN-WIN project respond to multiple, interconnected problems including housing, mobility, food, air pollution, health issues and waste. Solutions often provide attractive, alternative lifestyles and build social capital. With more than half of the global population living in urban areas today and more people expected to move to urban areas in the future, such solutions in urban areas are urgently needed to attain climate and broader sustainable development goals.

One example is Mobike, a user-friendly, dock-less, bike-sharing service started in Shanghai and today covering more than 160 cities worldwide (with over 6 million bikes in circulation), which reduces pollution, congestion, triggers a healthier mode of travel and solves the “last-mile problem”. An interesting aspect of this initiative is that problems of bike theft and damage have been solved by customers in a self-organized manner: A social movement has evolved called “mobike-hunters”, who find damaged or wrongly parked bikes and report them to the company. As a result, the company implemented a reward system, involving small financial credit or service-related rewards, to encourage these activities. This shows that gamification can be used to increase social capital and support sustainable lifestyles.

GREENCOAT is a Turkish start-up company that has created a long-lasting, façade-covering material on which plants can grow in vertical and horizontal gardens. This can increase the amount of green space in the city, regulate in- and outdoor temperature, and also decrease noise pollution. Currently, the company is working on an option to water the plants growing in the blocks. Potential positive impacts include an economic win-win due to reduced heating/cooling spending as well as increased green awareness and environmental responsibility.

Climate-Win is an interactive knowledge crowd-sourcing, learning-by-doing and collaborative exchange platform for Barcelona that aims to link consumers and providers of green products and services (e.g. low-carbon mobility options) to generate win-win solutions that contribute to climate mitigation, adaptation and societal transformation. By connecting producers to consumers the Climate-Win platform combines pro-environmental approaches with economic and social benefits for both green product and service providers (supporting their business) as well as their users (fostering sustainable lifestyles and social capital by good-practice exchange and networking).

Win-Win Solutions co-designed for and by poor communities improve global resilience

Rural win-wins depend on community ownership

In rural and informal peri-urban areas, a wide range of win-win strategies that address both the economic goal of improving livelihoods, thus ensuring access to energy services, and contributing to climate adaptation and mitigation goals have been identified in the GREEN-WIN project. Some of the most striking examples in this regard have to do with sanitation, water treatment, shelter, subsistence agriculture and the strengthening and restoring of the social, ecological and economic capital of rural communities by ensuring communities have ownership of the solutions. Indeed, the examples show that aligning climate goals with sustainable development goals gives rise to two potential synergies. First, the costs of climate adaptation for poor communities may be reduced while the opportunities to engage local populations in mitigation actions may be increased. Second, mainstreaming climate concerns in local decision-making may trigger actions that help support the achievement of several SDG at local level by creating

short-term economic and social benefits derived from collaborative actions that may not be set in motion otherwise.

In South Africa, a water purification measure using wetlands has been introduced by a cooperation between the provincial government and BiomimicrySA, a regional network of the Biomimicry Institute. The solution addresses the serious water scarcity issue in South Africa and the historical legacies of apartheid in spatial planning, which has led to grey water polluting the water supply. Local households and communities collect wastewater that is canalized into small wetlands, which are then used as water purifiers. The clean water then flows back into the river. The solution is designed through a participatory process in order to co-design the infrastructure, using biomimicry. A business model concept has been developed focussing on micro-enterprise opportunities related to maintenance and bi-products from the system (infrastructure custodians, waste collectors, nursery, fruit trees, vermiculture etc.). The goal is to create a proof of concept for a replicable business model to be rolled out into the rest of the Langrug settlement.

In Tanzania, a storage dome that reduces crop quantity and quality losses due to weather and pests is being introduced together with community-owned and solar-powered electric quads for shared communal use that can be driven off-road and without a driver's license. The dome addresses the problem of a lack of infrastructure in Tanzania, which limits post-harvest storage. The community mobility service enables crops to be transported from farm to storage dome and from the dome to the market. This improves post-harvest storage and access to markets.

A partnership between the Climate Resilience Infrastructure Development Facility and Illovo Sugar (Africa's largest sugar producer) is improving the climate resilience of sugar cane growers in Africa. In line with the principle of "shared risks are shared benefits", potential risks (e.g. droughts, floods, financial) are identified and support for identifying appropriate response strategies is provided.

In India, the social enterprise Development Alternatives has supported the development a solar-based rural and community-run project that embodies an integrated system of solutions, in which solar energy can be used for lighting and to pump water from wells while helping to diversify the local economy. The improvement of the livelihoods in these communities has also reduced their needs to migrate and their vulnerabilities to climate-related risks.

In the Danube Basin in Hungary wastewater management is improved by a smart decentralised wastewater treatment system, tackling the low water quality in the Danube catchment. A financing model will be piloted whereby public finance subsidises household purchases of wastewater treatment technology, and is leveraged by generating revenues through charging beneficiaries, e.g. hotels or fishing operators, user fees for access to clean water.

Win-win strategies for climate adaptation can significantly leverage public finance by producing co-benefits, for example, in coastal adaptation projects

Co-benefits of adaptation projects can generate revenues

Climate adaptation projects that 'leverage public finance' are those in which initial investments are made by a public actor and which by producing revenue streams, e.g. through market or tax revenues, or by inducing further investments by other actors, increase the adaptation outcome achieved for the same public investment. Such projects contribute to achieving climate and broader sustainable development goals with relatively less demand on public finance (Bisaro and Hinkel, 2018).

Several examples of adaptation win-win strategies that leverage public finance have been identified by the GREEN-WIN project in the area of coastal adaptation. One example comes from the city of Nijmegen, Netherlands, where riverine flood risk management was achieved by relocating a protective dike, and building ancillary channels in the flood plain, in order to allow more room for the river. The project also reclaimed and raised land on an island in the river. Because Nijmegen is located at a bottleneck in the river, changing the location of the dike to allow wider fluvial profile, reduced the height of the dike needed to achieve the same level of flood safety, thereby reducing the costs of flood protection. The project also involves reclaiming land and redeveloping it for recreational and real estate uses. Additional revenues are generated for the public actor by selling this reclaimed land as well as through additional taxes collected on increased tourism-related activities, thus reducing the net public expenditure on the project.

A second example, coastal flood risk reduction in the Maldives is achieved by building a new island, Hulhumale, that is raised 2 meters above sea-level, one meter above the average level of existing heavily populated urbanised islands in the country. The project addresses a major issue in the Maldives of land scarcity, and also reduces exposure to flood from storm surges that will increase with sea-level rise. The project leverages public finance by creating new flood protected land, which can be sold or leased to private developers, thereby creating a revenue stream for the government actor, who thus covers the investment costs of island building and infrastructure provisioning.

Policy for scaling up win-win strategies should address knowledge sharing, collaboration, and capacity building needs

Win-win strategies analysed in the GREEN-WIN project show a wide range of initiatives that satisfy economic goals while reducing greenhouse gas emissions and often also contributing to attaining other sustainable development goals.

Across all three Transformative Narratives, the win-win strategies identified can be scaled up, i.e. through transferring them to other locations or increasing their overall impact, by addressing knowledge-sharing, collaboration and capacity-building needs. In particular, policy aimed at scaling up win-win strategies should address the following:

- Pay serious attention to increasing public awareness, for example through workshops, dialogues and online platforms, about the experiences gained through pilot projects and demonstrate that the projects are successful and create multiple co-benefits;
- Create space and time for collaboration between the diverse sets of actors needed to plan and implement innovative win-win solutions (e.g. governments, business and industry, researchers, investors, funders, NGOs and CSOs);
- Provide training and capacity building (e.g., on technology, financial management, marketing) where necessary to ensure that stakeholders are able to implement and benefit from the solutions over the long term;
- Always consider the context within which the solutions are to be implemented, bearing in mind that most solutions are context-dependent and modifications might be necessary in order for them to work in different political, legal, social and natural conditions;
- Wherever possible, ensure that the local population co-invests in the win-win solutions to secure ownership of the solution.

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Green growth and win-win strategies for sustainable climate action (GREEN-WIN)

The GREEN-WIN Project identifies, develops and critically assesses win-win strategies, green business models and green growth pathways that bring short-term economic benefits, while also supporting mitigation and adaptation goals within the broader sustainable development agenda.

Work programme

- ↘ At national levels, GREEN-WIN analyses win-win opportunities that arise through integrating policies across different sectors, and advances state-of-the-art macro-economic models in order to identify green growth pathways.
- ↘ At local levels, GREEN-WIN carries out action research case studies to develop green business models and enabling environments in the following three areas: i) coastal flood risk management in Jakarta, Kiel, Rotterdam and Shanghai; ii) transformations in urban systems in Barcelona, Istanbul, Shanghai and Venice; and iii) energy poverty and climate-resilient livelihoods with case studies in India, Indonesia and South Africa.
- ↘ Cutting across both levels, GREEN-WIN investigates financial products and policies, as well as financial system reforms that redirect financial flows towards sustainability and climate action.
- ↘ All of these activities are embedded in an open dialogue between research institutes, international organisations, business, and civil society that co-develops shared narratives around win-win strategies, business opportunities and green growth pathways

Project partners

Global Climate Forum (GCF), Germany (coordinator) | The Institute of Environmental Sciences and Technology, Autonomous University of Barcelona, Spain | E3-Modelling, Greece | Environmental Change Institute, Oxford University, UK | Ecole d'Economie de Paris, France | University College London, UK | The Ground_Up Association, Switzerland | Stichting Deltares, The Netherlands | Institute for Advanced Sustainability Studies, Germany | Global Green Growth Institute, Republic of Korea | Jill Jaeger, Austria | European Centre for Living Technology at Università Ca' Foscari Venezia, Italy | Institute of Environmental Sciences at Boğaziçi University, Turkey | Universitas Udayana, Udayana University, Indonesia | University of Cape Town, South Africa | 2° investing initiative, France | Sustainability and Resilience, Indonesia



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