**Larson et al 2021**

User-pays, public benefits, funding model in USA has funded conservation for 100 years (i.e. hunters and anglers). 60-80% of revenue for state fish and wildlife agencies come from excise taxes from sale of equipment and fishing and hunting licenses.

Land and Water Conservation Fund - funding conservation by utilizing existing revenue from the development of energy and mineral resources on federal lands. Other conservation funding options include general sales taxes, transfer taxes, lottery funds, vehicle license plate sales, nonconsumptive recreation user fees, and outdoor equipment sales taxes.

Majority of college students supported extractive industry contributions, licensing from hunting/fishing, lottery proceeds, outdoor recreational outfitters contribute revenue, excise tax on hunting and fishing equipment, state sales tax, state bonds, fees from other recreational activities.

**Echols 2019**

Ultimately, the conservation community needs to develop additional, creative funding sources. Government funding is static to declining while the need is increasing. Deploying market tools that seek a greater environmental return on investment can be an important innovation for a more effective use of limited funds.

We need to do a much better job of assessing conservation effects and telling the story of how limited financial and human resources are used to deliver conservation outcomes.

Second, we should move to investment models that ask for a greater environmental return‐on‐investment (e‐ROI) instead of spending like entitlement programs. We should shift to a conservation investment system that asks which places and which management actions will produce those outcomes we desire more effectively and do so in a manner that protects land best‐suited for agricultural production.

Within individual countries, eliminating expensive and environmentally damaging subsisides can reduce environmental damage plus reduce government expenditure, which theoretically can be redirected towards conservation (see the creation of the Conservation Title in the US).

Ecosystem Service Markets have the potential to be a significant new funding source for conservation investments. One of the impediments has been the reluctance of consumers of ecosystem services to pay for something they may get for free.

A potential emerging innovation for funding focused on imperilled species, is the Recovering America’s Wildlife Act. Similar to the LWCF, this legislation proposes to draw a dedicated fund from the extraction of energy and mineral resources from federal lands. The proposal seeks to direct US$1.3 billion annually to improve the management of species in significant decline through partnerships with state wildlife agencies guided by State Wildlife Action Plans. The legislation is designed to provide a regular and secure source of funding for management of species prior to listing under the 1973 Endangered Species Act.

**Laufer & Jones 2021**

Three major streams of funding for marine – government, private foundations, public charities. Lack of cohesion, coordination, and transparency (se also Blasiak et al 2019). Many of the processes within funding organizations are hidden (Blasiak et al., 2019), making financial planning a guessing game. Notably, these findings suggest that strategically framing a proposal through priorities, moral foundations, and characters may increase the likelihood of acceptance.

Other surveyed funders shared frustration with past marine funding for failing to “address the need for long-term thinking”, and believe that “too much short-term thinking has harmed the ocean”.

**Gruby et al 2021**

We are living in the ‘new Gilded Age’: an era of mega-wealth and big philanthropy [1]. As Skocpol [2, p.433] has observed, “In the current period of sharp accumulations of wealth at the very top, philanthropic giving is booming with many societal reverberations.” Mirroring upward trends in philanthropy generally, marine conservation philanthropy (hereafter: ocean philanthropy) is reported to have more than doubled in the past decade [3].

Akin to keystone species in ecosystems, we suggest that private foundations may be examples of “keystone actors” in marine social-ecological systems [6,7], with a profound and disproportionate influence on conservation agendas, research, organizations, networks, policy, and the local societies affected by these interventions.

Social scientists have described organized philanthropy as a “black box” and “vast research frontier” deserving urgent attention in light of the increasing influence of foundations in governance and public policy in sectors like education, health, civil rights, immigration, and the environment [8,9].

First to emerge in the U.S., private foundations are tax-subsidized non-profit organizations that support “charitable activities” primarily by making grants [19].

The significance of foundations can be understood within the shift from government to governance in the environmental sector, whereby non-state actors are playing increasingly important roles in governance processes, structures, and institutions [31]. For a review of environmental philanthropy scholarship relevant to this paper, we direct readers to our work in [35], where we synthesize the literature to outline a research agenda on foundations as agents of environmental governance.

Foundations are not required to disclose information about their funding allocations – a problem of transparency well recognized by scholars [12,38] and the media [61].

**Betsill et al 2021**

Today’s mega-rich direct significant portions of their wealth through philanthropic foundations (Kolbert 2018). Increasingly, foundations play a prominent role in environmental arenas as funders of projects, organizations, policy initiatives, and research activities across a range of issue areas.

Compared to cities, civil society organizations, businesses, and scientific networks, foundations are largely absent from environmental governance research, despite providing substantial funding and other support for many initiatives that have been the subject of scholarship.

Studies of foundations as *funders* emphasize their significant financial assets, while scholars who analyze foundations as *field- builders* consider how foundations deploy non-material or social resources alongside financial resources to advance agendas in environmental arenas.

Disbursing grants for specific activities is seen as the primary mechanism through which foundations exercise agency in environmental governance (Delfin and Tang 2007, Bakker *et al*. 2010, Brulle 2014, Nisbet 2018). For example, in the US, foundations are an increasingly significant funding source for conservation science considering declining federal support, thereby performing the role of knowledge production.

Critical scholars argue that foundations direct resources to well-established NGOs supportive of market-based solutions, which enables foundations to co-opt NGO agendas and leadership to advance a capitalist agenda. From this perspective, channeling allows foundations to act as gatekeepers and marginalize organizations supporting more radical or structural change.

**Aseres & Sira 2020**

An increasing number of protected areas (PAs) are being established in many countries to conserve and preserve the wildlife species and to maintain earth's ecological balance, but in emerging economies such as Ethiopia, PAs are currently confronted with inadequate conservation funding that makes it tough to protect the remaining biodiversity. PAs, therefore try to use other financial means such as ecotourism to subsidize their financial shortage and nourishes the nexus between conservation and development. Estimation of visitors' willingness to pay (WTP) would be useful to craft strategies to strengthen the self-financing capability of PAs and hence realizing environmental and livelihood goals. In this study, the visitors' WTP for the proposed conservation fund in the context of Bale Mountains National Park (BMNP) was estimated using a contingent valuation method. The finding indicated that 75% of visitors were willing to pay a conservation fee. The mean WTP was estimated to be US$7.40 for foreign visitors and US$1.00 for domestic visitors. The finding suggests that the implementation of conservation fee in addition to the existing entry fee helps to improve the long-term sustainable financing of PAs

**Evans et al 2020**

As economies contract in response to the fight against Covid-19, all areas of expenditure by individuals, industry and government will be squeezed. Previous investments in conservation are unlikely to be maintained, and there seem to be vanishingly small prospects of substantial increases in investment to the levels required to meet globally agreed conservation targets.

**Clark et al 2018**

In order to meet these challenges, we are facing uncharted territory that requires taking unprecedented action to recalibrate globally towards a low-carbon economy. Unlocking private finance is regularly regarded as a solution to achieving such change (African Development Bank et al., 2015), however the enabling political, regulatory and economic conditions that would stimulate redirecting the bulk of private sector investment towards meeting these goals remain unchanged (Parker et al., 2012; Almassy et al., 2015).

However, in recent years, there is a growing discourse claiming the availability of trillions of dollars to finance the global environmental agenda, simply waiting to be “unlocked” (World Bank, 2015).

It has previously been noted that disconnects may exist between global commitments and the human and technological capacity to implement (Murcia et al., 2016; Holl, 2017). We agree with this assertion and further speculate that a similar disconnect exists between global ambitions and financial realities and that the mechanisms by which such commitments can be fulfilled will likely require transformations across scales of geographies, policies, and economies.

Financing options to support conservation, climate action, and sustainable development have been expanding in recent years and vary across different scales, types and time horizons—all of which are largely dictated by funding sources. Funds such as the World Bank BioCarbon Fund, the Clean Development Mechanism, the Global Environment Facility and the Green Climate Fund have emerged to support the global agenda. Capital can also be obtained from local, federal and international sources as well as disparate sources encompassing regional governments, conventional financial institutions such as banks and private equity firms, development finance institutions, private sector investment, high net worth individuals and others, although philanthropic and government sources dominate this space (Shames et al., 2014). This is problematic, since these sources can only fulfill a small fraction of the overall finance required to meet the sustainable development and climate agendas.

As such, new funding structures and innovative collaborative partnerships represent important shifts in the financial markets to develop solutions. Calls for the up-scaling of finance have been directed at all levels of government and international funding agencies, accompanied by a recent focus on the private sector (Schuyt 2005; Stein et al., 2010).

It is crucial to have reliable, integrated information regarding the current status of financial flows across various domains, sectors and efforts such as climate change and sustainable development In order to properly assess the current state of financing and inform clearly articulated strategies and financial decisions to address gaps and allocate limited resources in the most efficient way possible.

Various sources have recognized a disconnect between investors seeking projects and projects seeking funding due to a perceived lack of opportunity as well as challenges sourcing a viable pipeline of bankable projects. We identify a paucity of comprehensive research providing empirical evidence supporting the current state of green finance being spent across the various sectors and forecast needs for the near future.

Governments also play pivotal roles in incentivizing private investment through policies, subsidies, grants, concessional loans and risk mitigation mechanisms including insurance and government guarantees. The importance of conservation finance as part of wider global efforts addressing climate change and sustainable development is undeniable, yet inadequate funding remains a persistent challenge.

Approximately USD52 billion annually, primarily from philanthropic and public funds, currently flows to conservation projects (Huwyler et al., 2014); however, it is estimated that an additional annual investment of USD200–300 billion is required for ecosystem preservation globally across land and oceans (Huwyler et al., 2016).

Another important public funding mechanism exists through national development banks whose primary role is to act in underfinanced areas including providing credit finance to long-term investments, socially valued projects, and mitigating market failures arising from asymmetrical information (Torres and Zeidan, 2016).

Blended finance combines private with public finance and includes mechanisms such as traditional public-private partnerships (PPPs) as well as development finance institutions (DFIs). DFIs are alternative finance institutions, typically government backed or with a combined public and private ownership structure, that operate by market principles to provide capital and investment in private sector in countries or sectors that otherwise have difficulty attracting capital (Te Velde, 2011).

As involvement of private actors in international sustainable development dialogue has escalated, further unique partnerships have emerged between government, private sector, NGOs and civil society. One such example is the Tropical Landscapes Finance Facility that consists of public and private funding to provide long term financing aimed at catalyzing sustainable land use (TLFF, 2017). TLFF funding targets renewable energy, agriculture, forestry and environmental services with the aim of benefiting rural livelihoods through leveraging policy reform and building models that combine commercial finance and development (TLFF, 2017).

Other recent private sector and blended finance initiatives and mechanisms that directly and indirectly funnel finance flows towards environmentally beneficial initiatives include green bonds, conservation finance, impact investing, REDD+ and foreign direct investment, among others. In 2014 The Nature Conservancy and JP Morgan Chase established NatureVest to focus on financing investable projects that deliver both conservation results and financial returns for investors (FAO and Global Mechanism of the UNCCD, 2015).

Other initiatives, such as the Global Canopy Programme’s Unlocking Forest Finance (UFF) project focusing on channeling finance to aid in transitioning to sustainable landscapes, serve as further examples of the potential of forging new partnerships.

Blended finance initiatives clearly represent a significant area of potential. However a recent report found that although USD51.2 billion had been invested historically and investments had accelerated in the past decade, efforts remain both geographically and sectorially fragmented and better data is required to engage and incentivize private investors.

While the green bond market is often touted as an area of significant potential, these figures suggest current progress is insufficient considering an estimated USD2.5–3 trillion of capital per year is required for climate related investments, of which 60–70% needs to be invested in emerging markets (Boulle et al., 2016).

Foreign direct investment (FDI) is the most reliable and long-term source of private foreign investment in developing countries. However, it is important that governments not only implement policies to create enabling environments to attract investment but also safeguard against exploitation by ensuring social and environmental standards are met and provide local opportunities and technology transfers (UN, 2014).

Expecting transformational change from increasing these type of investments when they co-exist in tandem with business models, financial systems and government policies that incentivize the very actions and activities responsible for the environmental damage we are trying to rectify is radically unrealistic. A much more profound paradigm shift is necessary to establish long-term political and private sector support since “huge pools of private sector finance will not change their direction whilst price signals continue to favour the destruction and degradation of nature, rather than its restoration and maintenance” (Parker et al., 2012, p7).

**Huwyler et al 2016**

Attracting such a level of private capital will require attractive risk-adjusted rates of return, in addition to clear and measurable conservation impacts.

In the current environment, investors are looking for an edge to drive excess returns. Increasingly, they are seeing conservation impact investing as a way to achieve substantial environmental and social impact alongside market-rate financial returns. The growth of the conservation finance market is opening the way for banks to pool risk across geographies and asset types, which corresponds neatly with our core expertise of aligning capital with attractive and sustainable investment opportunities.

**Sachs et al 2019**

Finance is the engine of development of infrastructure projects, including energy projects. Generally financial institutions show more interest in fossil fuel projects than green projects, mainly because there are still several risks associated with these new technologies and they offer a lower rate of return. If we want to achieve sustainable development goals, we need to open a new file for green projects and scale up the financing of investments that provide environmental benefits, through new financial instruments and new policies, such as green bonds, green banks, carbon market instruments, fiscal policy, green central banking, financial technologies, community-based green funds, etc., which are collectively known as “green finance”.

**Freeling & Connell 2020**

For an environmental message to attract donors, the message must resonate with the donors’ principles [6]. Identifying the values that motivate affluent social groups could unlock an opportunity for conservation.

There is a novel social movement that promotes evidence-based charity, called ‘effective altruism.’ Effective altruists are different from traditional charity donors – they do not give their own emotions a prime position, but rather maximize the good that their charity dollars do using a rational approach to evidence-based giving.

Effective altruism represents an opportunity to capture a substantial source of funding for environmental conservation.

**McFarland 2018**

There are numerous financial and strategic solutions to conserve the world’s remaining forests. Essentially what is needed going into the future is mitigation of global climate change; conservation of large tracts of land; investable, scalable projects for the private sector; development of new financing structures; public funds used to leverage private financing; education and reduced public apathy; a new economic system that values natural capital; respect for local communities, Indigenous Peoples, and human rights; and policy matters.