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Climate-Smart Pro-Poor Conservation

A literature review of theory and practice by Dilys Roe, Francesca Booker and Phil Franks

Contents

1. Introduction: What is climate smart, pro-poor conservation?

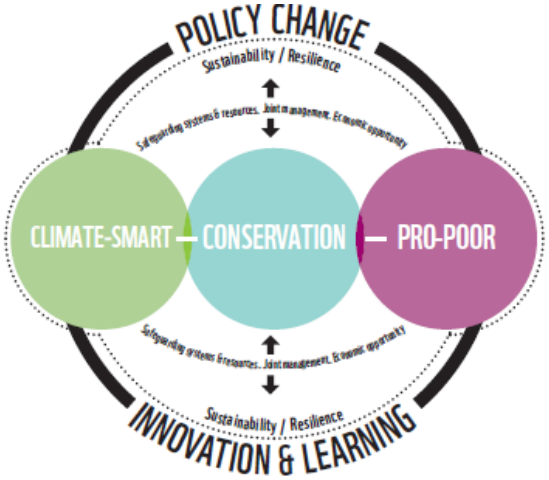
The terms "Climate-Smart Conservation" and "Pro-Poor Conservation" are both established in the conservation lexicon (eg IUCN 2002; Roe *et al.* 2003, Hansen *et al.* 2009; Davies *et al.* 2013; Stein *et al.* 2014). The combined term - Climate Smart, Pro-Poor Conservation (CSPPC) – has not been used by conservation academics or practitioners other than by WWF UK in relation to its portfolio of programmes that is supported with funding (through a Programme Partnership Arrangement (PPA)) from the UK Department for International Development (DFID). Neither DFID nor WWF UK specifically define the term CSPPC. DFID, however, highlight four pillars to creating a climate smart programmes including: (1) greening DFID; (2) building skills knowledge and engagement; (3) 'proofing' current programming; and (4) transforming future investment and policy (DFID undated). WWF does not specifically define the term CSPPC but the anticipated impacts and outcomes of the PPA-funded portfolio of work shed some light on the scope and objectives of CSPPC (Figure 1): "to influence policies and practices so that they sustain or restore ecosystem services and tackle climate change, in order to secure and/or improve the wellbeing of poor women and men." These impacts and outcomes include:

- Communities safeguarding the ecosystems and ecosystem services upon which they and others depend in an equitable and adaptive manner
- Policy frameworks and practices relating to adaptation, REDD+ and low carbon development are climate smart, environmentally sustainable and designed to secure and/or improve the well-being of men and women living in poverty
- Government and private sector policies, practices and priorities relating to investment in infrastructure and natural resource extraction/use are climate smart, environmentally sustainable, and designed to secure and/or improve the well-being of women and men living in poverty.

WWF UK's combined approach reflects a recognition of the interconnectedness between climate change and poverty reduction and the need to address both in conservation if it is to be seen as relevant to the development community. The purpose of this literature review is to unpack the term CSPPC and to understand its theoretical underpinnings. It draws on the literature around climate smart conservation and pro-poor conservation, to identify key principles which characterise these approaches and to develop a framework for supporting learning and exploring different approaches to CSPPC in the context of WWF's portfolio of activities within its different programmes. Overall, this literature review seeks to address two key questions:

1. CSPP conservation – what does it mean in theory?
2. CSPP conservation – what does it mean in WWF Programmes?

Figure 1: A WWF representation of climate smart, pro-poor conservation (Source: WWF 2015)



The review starts by exploring the origins and applications of the two related terms – climate smart conservation (section 2) and pro-poor conservation (section 3). It looks at who has developed and used these terms, and how they have been applied. In each case it looks first at how the terms have been used and interpreted outside of WWF and then secondly within WWF. In the final section (section 4) it draws out a set of key principles associated with each term and proposes a framework for exploring CSPPC based on these principles.

Before exploring climate smart conservation and pro-poor conservation, it is perhaps worth taking a step backwards and reflecting on the meaning of conservation itself. There is no single definition of conservation and many volumes have been written which explore different perspectives and different approaches (see for example various overviews of conservation including Borgehoff Mulder and Coppolillo 2005, Adams 2009, Brockington and Duffy 2011). In particular there has been a long debate on whether conservation is about protecting nature from human interference, or managing nature for human benefit (Miller et al 2011). Sandbrook (2015) points out that most definitions of conservation reflect what their authors think it ought to mean from their individual perspective. Hence some might emphasise protection of wild species and habitats, while others might be more focussed on genetic diversity. Local conservation priorities are also likely to be very different to international concepts, focusing on the direct use values of biodiversity and its cultural associations rather than the continued existence of internationally rare or valued species or habitats (Vermeulen and Koziell 2002). Distinctions between tame and wild, a crux of western conservation, are less meaningful to many rural communities, who farm forest gardens or gather wild foods (Vermeulen and Koziell 2002).

Sandbrook (2015) proposes an all-encompassing definition of "actions that are intended to establish, improve or maintain good relations with nature'. This resonates with the much older definition put forward in the World Conservation Strategy (WCS) of 1980 which describes conservation as "the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations" (IUCN, UNEP & WWF 1980) The objectives of conservation are identified as: 1) to maintain essential ecological processes and life-support systems; 2) to preserve genetic diversity; 3) to ensure the sustainable utilization of species and ecosystems (IUCN *et al.* 1980). Karp *et al.* (2015) have recently categorised conservation objectives in a different way, incorporating ecosystem services thinking into their typology of objectives (Table 1) but these elaborate rather than replace the WCS definition.

Table 1: A typology of conservation objectives

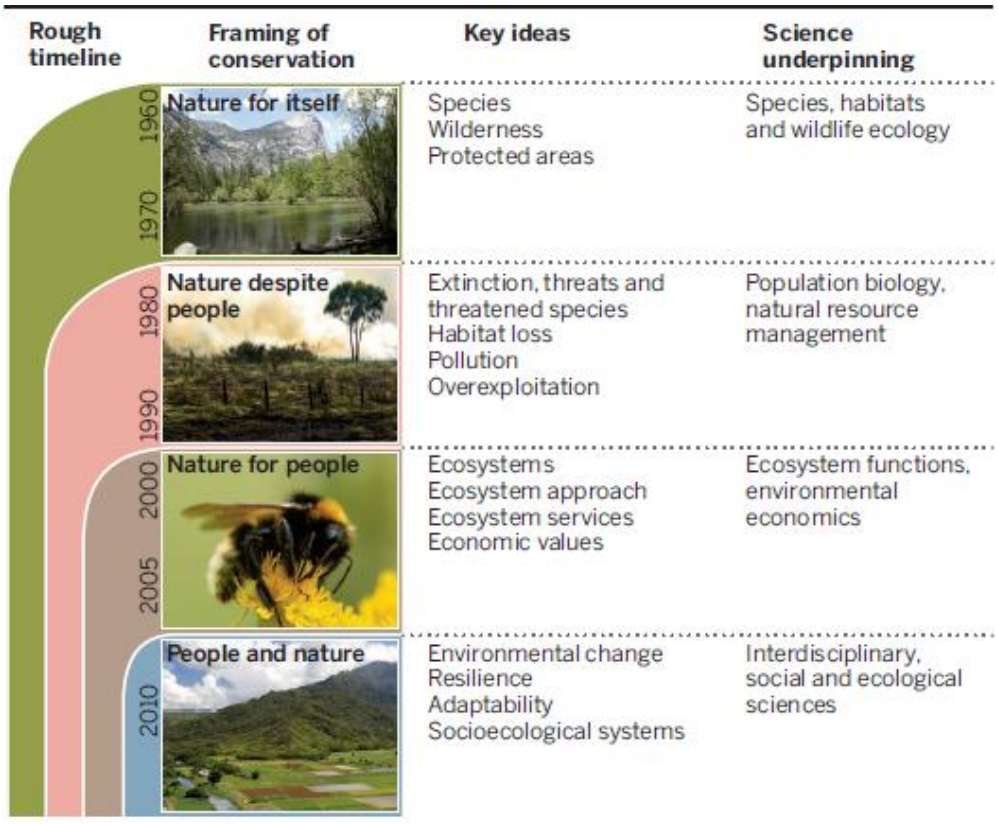
Objective	Description	Strategies and Policies
Extinction risk	Preventing global extinctions – focus on endangered and rare species	CITES; IUCN Red List; biodiversity hotspots; Important Bird Areas etc
Extirpation risk	Preventing regional/local loss of populations, varieties	Centers of Plant Diversity, Biodiversity Intactness Index; Mean species abundance
Evolution	Protecting and diversifying lineages to preserve evolutionary history and perpetuate diversity	Gene banks, evolutionary distinct, globally endangered (EDGE) species

	Naturalness	Recreating pre-colonial or pre-human state of nature	Pleistocene re-wilding, restoration, wilderness areas
	Provisioning services	Conserving nature for direct human benefit through eg food, fuel, water	Sustainable forestry; eco-labelling (eg bird-friendly coffee); catch shares
	Regulating services	Maintaining ecological processes that support human lives eg pollination, water filtration	Ecosystem based management; PES schemes
	Cultural services	Conserving nature that provides cultural benefits	Tourism, recreation, sacred groves; indigenous territories

Source: Karp *et al.* 2015.

Mace (2014) similarly describes a spectrum of approaches to conservation but highlights an expansion - and change in emphasis – of objectives over time. The timeline describes a shift from a "nature for itself" approach which emerged prior to the 1960s and emphasised wilderness and intact natural habitats, generally without people; to a "people and nature" approach which has emerged in the last five years and which emphasises environmental change, resilience, adaptation and socioecological systems. Mace notes that none of the different framings of conservation have been totally eclipsed as new ones have emerged, resulting in multiple framings in use today (Figure 2).

Figure 2: Changes in the framing of conservation over time



Source: Mace 2014

2. Climate Smart Conservation – origins, use and application

2.1 Where did the term "climate smart" come from and what does it mean?

Early origins - from development to agriculture

"Climate smart" first appeared in the academic literature in the journal Development in 2008. The term was used to help frame adaptation efforts, with the proposition that development must take into account place based climate futures and place specific development risks to manage long term climate change (Someshwar 2008). Following this, there was little use of the term in development until climate compatible development emerged (see next subsection).

The most common usage of the term "climate smart" has been in the context of agriculture. This was initiated by a background paper from the FAO in 2009 that explored the potential synergies and trade-offs for food security and agricultural mitigation including options to mitigate emissions associated with agriculture (ie through carbon sequestration), and use agriculture to mitigate global climate change (ie through biofuel production) (Arslan *et al.* 2014, FAO 2009a). The paper was positioned between the November 2009 World Summit on Food Security in Rome and the momentum leading up to the December 2009 UNFCCC Conference of the Parties (COP) 15 in Copenhagen (FAO 2009a), where there was increased support for featuring agriculture more centrally in the negotiations (Scherr *et al.* 2012). A subsequent policy brief by the FAO (2009b) added emphasis on adaptation to climate change as well as mitigation and in 2010 at the high-level Hague Conference on Food Security, Agriculture and Climate Change, the FAO advanced a new approach, climate smart agriculture (CSA) (CCFAS and FAO 2014). The FAO proposed that CSA was necessary to articulate the transformation agriculture must undergo to meet the related challenges of food security and climate change (FAO 2010, FAO 2012).

Since then, the FAO in a collaborative partnership with the World Bank, IFAD, WFP, UNEP and Global Mechanism have conceptualised CSA an "integrative approach to address the interlinked challenges of food security and climate change, that explicitly aims for three objectives:

Sustainably increasing agricultural productivity, to support equitable increases in farm incomes, food security and development

Adapting and building resilience of agricultural and food security systems to climate change at multiple levels, and

Reducing greenhouse gas emissions from agriculture (including crops, livestock and fisheries).

FAO further noted that these three objectives, the 'triple win' of climate smart agriculture, must be considered together at different scales (farm to landscape), different levels (local to global), and over the short to long term, while also taking account of national and local specificities and priorities (FAO 2013). More recently, however, the mitigation strand of FAO's concept of CSA has been down-played to seeking mitigation co-benefits rather than it being a fundamental pillar of the approach, with much more emphasis on adaptation and building resilience (see Box 1) (FAO 2014).

The CGIAR, which has provided much of the research leadership on CSA, advises that it is a process that is highly context specific and involves food security and increasing agricultural production in the context of climate change, as well as concern for livelihoods, impact on the poor, and preservation of biodiversity, forests and environmental services (Verhagen *et al.* 2014). CSA might involve incremental actions such as information provision, improved market governance or expanded safety net programs, or transformative changes including shifts in agriculture production or sources of livelihoods (Lipper *et al.* 2014). Programme examples include drought tolerant maize in Africa, the Grain for Green Programme in China, sustainable intensification of rice production in Vietnam and weather based crop insurance in India (Cooper *et al.* 2013).

CSA has garnered international support from governments, intergovernmental organisations, financing institutions and the private sector who have voluntarily joined a Global Alliance to

advance CSA in practice (GACSA 2015). However, increasingly civil society organisations are rejecting the approach. A significant concern has been that CSA is a "Trojan horse" for carbon markets, and a "greenwashing" of industrial agriculture (CSA Concern 2015). In the lead up to UNFCCC COP 21 in Paris some 350 NGO organisations released a joint statement; "Don't be fooled! Civil society says NO to 'Climate Smart Agriculture'…" (CSA Concern 2015).

Box 1: What Is Resilience?

There is no standardised definition of resilience and it is framed differently for issues such as food or economic security and post disaster recovery. Widely recognised across these issues is the conceptualisation of **socio-ecological resilience**.

The concept of **socio-ecological systems** recognises the interconnections and cross-scale dynamic interactions between human and natural systems, and argues that as such these systems should be viewed together, rather than separately. Resilience of social-ecological systems is important as it is seen as integral to their ability to adapt to uncertain future climate change (Tompkins and Adger 2004). Indeed, some proponents suggest that one of the defining principles of resilience is that it is "socio-ecological systems-based" (IRLG 2012).

The concept of **resilience** further draws attention to characteristics such as the ability to absorb perturbations without becoming undermined, adaptive capacity, transformability (capacity of people to create a fundamentally new social–ecological system), learning and innovation (Tompkins and Adger 2004, Folke 2006).

An important criticism of the CSA approach is that there is the lack of a clear definition (CIDSE 2015, Anderson 2014). As such the term can be used very liberally so that virtually any agricultural practice that improves productivity or the efficient use of scarce resources can be considered climate-smart (Neufeldt *et al.* 2013). Christian Aid suggest a different approach, Climate Resilient Agriculture, which focuses on, and responds to, small scale producers' priorities and needs to adapt to climate change (Ewbank 2015). Alternatively, others within civil society, such as Global Justice Now, suggest there is already a solution in agroecology (Fitzpatrick 2015).

Climate smart landscapes

Some within the research community have suggested moving beyond CSA, but as these approaches are just emerging, they remain theoretical. One such approach is climate smart landscapes (CSL). The rationale here is that to be climate smart, to achieve food security as well as climate change adaptation and mitigation, action often needs to be taken at a landscape level (Harvey *et al.* 2013). Three features of such an approach include (Scherr *et al.* 2012):

1. Climate smart practices at the field and farm scale
2. Diversity of land use across the landscape to provide resilience, and
3. Management of land use interactions at the landscape scale to achieve social, economic and ecological impacts.

Further characteristics of a CSL approach include effective multi-stakeholder planning, decentralised governance and clarification of rights built on historical, cultural and institutional realities – as learnt from experience from the *gestion de terroirs* approach practiced in Francophone Africa (Bernand 2015). Similarly, a review of the literature has revealed institutional benchmarks for CSL, such as participatory and collaborative processes; secure tenure; equitable benefit-sharing mechanisms; gender consideration; strategic targeting of investments; monitoring and evaluation of impacts; and the explicit addressing of mitigation and adaptation needs (Wambugu *et al.* 2015).

A contrasting perspective has considered using the landscape scale to define and address multiple objectives as part of a CSL approach, rather than focusing solely on agriculture, food security or food production (Freeman 2015). Key to this approach is the principle of multifunctionality, whereby multiple objectives or functions are achieved simultaneously through reducing trade-offs, and optimising or promoting synergies (ibid). The approach pursues additive (based upon the sum of the parts) and superadditive (greater than the sum of the parts) synergies as necessary to promoting climate smart multifunctionality within landscapes (ibid).

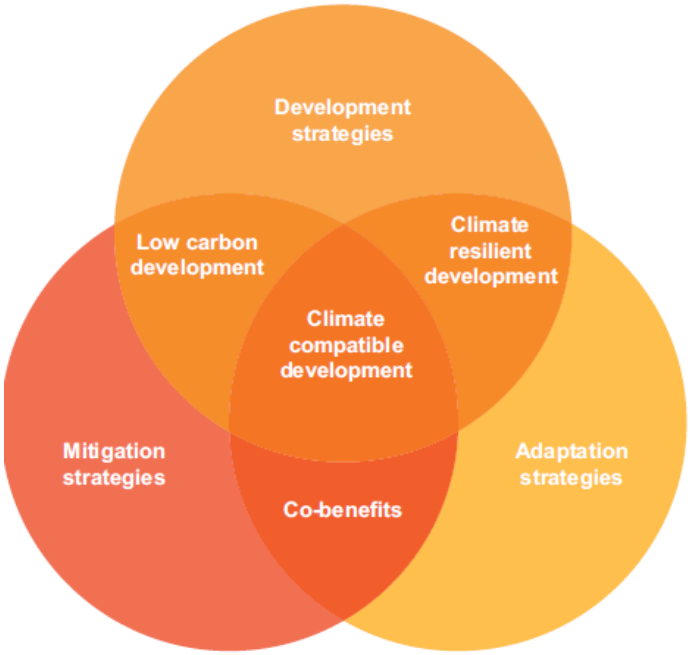
Other researchers, have proposed altogether moving away from CSA to, for example, 'safe operating spaces for global food systems' across spatial and temporal scales (Neufeldt *et al.* 2013). Safe operating spaces includes understanding the enabling political, social and economic conditions that underpin natural resource use. The suggestion here is that scientifically credible indicators and metrics are needed to help us understand with greater certainty what can be defined as safe and truly climate smart – including workable definitions of food security, mitigation and resilience (ibid).

Another approach, *climate smart territories*, has been posited as an integrated approach to equitably improve human well-being, while continuously optimising land use, mitigation and adaptation to climate change (Louman *et al.* 2015). The approach places emphasis on the functioning of the socio-ecological system, and in particular the socio-political dimensions. Unlike other CSA and CSL approaches, it starts by defining the territorial boundaries based on stakeholders' relationships with their surrounding ecosystems, and their common goal or problem. The four basic tenets of this approach are people centered sustainable livelihoods; aligning policies, institutions and incentives (both monetary and other benefits); territorial management (as defined by multiple stakeholders); and the ecosystem approach. Central components of the approach are climate and vulnerability related knowledge management, collective-decision making processes, adaptive management, as well as a focus on those most vulnerable groups within territories (ibid).

Climate smart development

The concept of generating a 'triple win' for climate change adaptation, mitigation and development priorities has influenced the thinking on climate smart development, more commonly referred to as climate compatible development (Tompkins *et al.* 2013). Climate compatible development (CCD) is defined as an inclusive approach to pursuing "*development that minimises the harm caused by climate impacts, while maximising the many human development opportunities presented by a low emissions, more resilient, future*" (Mitchell and Maxwell 2010, Figure 3). CCD strategies may be pursued by individual projects or programmes, or in policy. An example of a CCD project is a waste-to-compost project in Bangladesh which has acted to reduce methane emissions (mitigation), improve soil in drought prone areas (adaptation) and contribute to poverty reduction (development) (Ayers and Huq 2009).

Figure 3: Climate Compatible Development



Source: Mitchell and Maxwell 2010

Key to CCD is identifying and understanding the synergies and trade-offs for achieving adaptation – mitigation – development triple wins (Jones & Grist 2012), including "no regrets" or "low regrets" actions (actions that are not expected to have significant negative developmental side effects, increases in emissions, or result in maladaptation) (Tompkins *et al.* 2013). However, there is limited evidence for triple win scenarios. REDD+ (discussed in more details in the Section 3) is an example of a CCD programme that is described as potentially offering triple wins including opportunities to: support a transition to a lower emissions land use sector; create new economic opportunities in the forest sector; and contribute to climate adaptation and resilience (Peskett 2010). We are not aware, however, of any synthesis of experience of the hundreds of REDD+ projects that have been implemented to date that explores the extent to which this triple win ambition has been achieved.

Many commentators have noted that CCD would do better to settle for co-benefits, through successful development interventions that deliver adaptation or mitigation gains, rather than try to hit the "sweet spot" of development, adaptation and mitigation gains (Tanner *et al.* 2014, Stringer *et al.* 2014, Tompkins *et al.* 2013, Jones & Grist 2012). Others advise that the integration of development, adaptation and mitigation must not be pursued at the expense of stand-alone wins (Phillips *et al.* 2015).

The Climate and Knowledge Development Network (CDKN) has been advancing CCD in research and practice. Examples include projects that do not necessarily achieve triple wins – such as the planning and implementation of early warning systems for flooding in Malabon, Philippines (CDKN 2015). A related strategy to CCD is that of low carbon climate resilient development - which is essentially where CCD focuses exclusively on policy mechanisms. An illustration is Rwanda's Green Growth and Climate Resilience Strategy adopted in 2011 (Caldwell *et al.* 2015). WWF suggest seven guiding principles for this type of CCD including: multidimensionality, considering the short and long term; country and context specificity; cross-sector and participatory; socially and environmentally sound; flexible and enabling institutional arrangements; iterative, learning by doing; sharing learning and learning from others (Philips 2015).

Climate smart disaster risk management

Climate smart disaster risk management (CSDRM) has been proposed as a conceptual guide to refocus disaster risk management efforts in a way that is coherent and complementary with climate change adaptation goals, and tackles poverty and other root causes of vulnerability. Unlike CSA and CCD, CSDRM does not explicitly consider mitigation. Instead, its three pillars are:

1. Tackling changing disaster risk and uncertainties – improving information on how hazards are changing
2. Enhancing adaptive capacity – enabling institutions and network to develop new skills, knowledge and resources needed to enhance capacity to adapt, and
3. Addressing poverty, vulnerability and their structural causes – empowering and supporting communities to address the root causes of vulnerability through challenging injustice, increasing access to resources and services and through environmentally sound development.

By simultaneously supporting strategies or actions across these three pillars, the CSDRM approach intends to ensure that those managing disaster risks develop processes that do not accentuate poverty or vulnerability, or create new risks (Harris *et al.* 2012, Selabos and Harris 2012, Mitchell *et al.* 2010, Mitchell and Ibrahim 2010).

A related approach is climate smart/adaptive social protection, which aims to reduce the vulnerability of people to a range of shocks and ongoing stresses by integrating three areas; social protection, disaster risk reduction and climate change adaptation (Sellabos 2012, Vincent and Cull 2012). Adaptive social protection (ASP) is based on the premise that social protection can be tailored to become more resilient to risks from disasters and climate change, as well as play a critical role in buffering or reducing the negative impact of disasters and climate change (Davies *et al.* 2012). The integrated approach is informed by initial research that suggests linking social protection programmes with disaster risk reduction and climate adaptation can transform and promote livelihoods (Béné 2012, Davis and Béné *et al.* 2013). The World Bank (Kuriakose *et al.* 2013) have advanced a similar approach termed climate responsive social protection (CRSP) that puts more weight on climate change, while still acknowledging disaster risks. The approach has three principles including climate aware planning, a livelihoods-focus for interventions and building stronger adaptive capacity.

The CSDRM and the ASP/CRSP approaches have been used as frameworks to evaluate current DRM and social protection efforts. For example, using the CSDRM approach has highlighted that access to climate information and transparent and democratic decision making are crucial for DRM to become climate smart (Mitchell and Ibrahim 2010b).

Climate smart cities and infrastructure

Most recently, the climate smart terminology has been applied to cities, though the conceptual approach is still new and underdeveloped - particularly when compared to CSA. Other terminology such as low carbon cities, green cities and resilient cities are more commonly referenced, and climate smart cities is yet to achieve a distinct identity. Much of the focus, to date, has been on the economic benefits of improving the carbon efficiency of cities (eg Gouldson *et al.* 2015). Practice by the "Climate Smart Cities Programme" has compiled menus of all of the energy/water efficient and low carbon measures that could realistically be adopted in a case study city (Climate Smart Cities Website 2015). There is also emerging discussion on climate smart infrastructure which recognises resilience as well as carbon efficiency as two high level principles of all infrastructure policies and plans (ie Rydge, *et al.* 2015).

A related concept that has gained attention over the last decade is that of green infrastructure, which refers to maintaining or (re)creating an ecological system that delivers ecosystem goods and

services such as clean water, productive soils or attractive recreational areas (WWF Germany 2011). A fundamental principle of the approach is to work with nature to provide multiple benefits, such as adaptation and mitigation gains, at relatively low cost to man-made solutions (ibid). Examples are reforestation zones or green roofs, walls and bridges (ibid).

2.2 Related approaches

Concern for climate change over the last decade has led to a number of related approaches and terms in addition to climate smart – including climate proofing and mainstreaming climate change.

Climate proofing seeks to increase the sustainability of development projects through integrating climate change, and involves analysing the risks that climate change poses to project activities, stakeholders and results; and subsequently modifying projects designs or implementation plans to reduce those risks (CARE Climate Change Website 2015). The concept has primarily been applied in international development and various methods and tools have been designed to allow for climate proofing of development at the national, sectoral, local and project levels (eg ADB 2005, Bollin 2011, Hahn and Frode 2011).

In the context of conservation, there is some reference to climate proofing including a recent publication that uses the term in relation to climate proofing EU biodiversity policy. Mirroring the international development field, the approach proposes integrating knowledge on expected climate change impacts for biodiversity with options that can prevent or alleviate climate change impacts (van Teeffelen *et al.* 2015). The intention here is to understand the extent to which adaptation options are embedded in EU biodiversity policy and where gaps persist (ibid). A key aspect of climate proofing for conservation is the necessity to shift perspectives from a focus on single species to the adaptive capacity of an entire ecosystem (Vonk *et al.* 2010).

GIZ have used a climate proofing tool (Hahn and Frode 2011) to understand how their support for the Hin Nam Ho National Park in western Laos will be affected by climate change (Frode, undated). The process identifies key biophysical and socio-economic impacts of climate change that, in this case, were of relevance to the planning of GIZ's conservation programme in the national park. Subsequent actions included measures as part of a co-management plan to reduce climate-related risks (ie improving fire management capacity) and attention to added ecological and utilisation pressures that might result from climate change (ibid). Another tool from UNEP, UNDP, IUCN and the MFF Secretariat similarly provides guidance to climate proof coastal projects through four steps (UNEP 2010).

Mainstreaming climate change builds on a long history of integrating traditionally marginal issues into development and other "mainstream" policies and practices. Gender mainstreaming, for example, dates back to the 1970s. Other issues which have been the focus of mainstreaming efforts include environment, biodiversity, drylands and – more recently – climate change Climate change mainstreaming has been described as a process whereby development policies, programmes and projects are (re)designed, (re)organised, and evaluated from the perspectives of climate change mitigation and adaptation (Gupta 2010). The approach implies the inclusion of all social actors including governments, civil society, industry and local communities (ibid).

Mainstreaming has been used to integrate climate change and conservation priorities in a number of different ways:

1. Mainstreaming climate change into biodiversity conservation. For example, considering adaptation and mitigation measures in conservation management, planning and practice (Walling 2008).

2. Mainstreaming biodiversity conservation into climate change. An illustration is ensuring that climate change strategies such as National Adaptation Programmes of Action, reflect the importance of protected areas and other natural features to mitigate climate change,

reduce vulnerability and enable communities to cope with, and adapt to, climate change (eg MacKinnon *et al.* 2012).

3. Promoting the synergies for addressing biodiversity and climate change. For example, linking countries' National Biodiversity Strategies and Action Plans with their National Adaptation Plans (CBD 2014).

WWF US (2011) suggest a process to mainstreaming climate adaptation into existing conservation plans through a seven-step approach. Although, this approach is perhaps more in line with climate proofing than mainstreaming. Indeed the process involves understanding climate impacts and vulnerabilities in order to identify climate adaptation strategies for conservation projects.

There is some confusion in the formal and grey literature, and at times the lexicon of climate proofing or integration are used interchangeably with mainstreaming climate change (eg Persson and Klein 2009), or are described similarly (eg Mitchell *et al.* 2006). Yet the terms should be seen as distinct, with climate proofing considered one part of the wider mainstreaming approach (eg Klein *et al.* 2007) - as suggested in the UNDP-UNEP Poverty Environment Initiative's (2011) description of three levels of intervention for mainstreaming climate change adaptation:

- Strengthening the development base to consciously reduce vulnerability while avoiding maladaptation
- Ensuring that climate change is considered in decision-making of relevant government agencies (climate proofing policies) as well as addressing emerging needs for adaptation, and
- Targeting specific policy measures that the first two levels have not yet tackled.

Additionally, it is important to underline that climate proofing focuses on adapting to climate change, while mainstreaming focuses on both climate change mitigation and adaptation (Gupta 2010).

2.3 Climate Smart Conservation

The earliest use of the term climate smart conservation (CSC) in the formal peer reviewed literature is by the WWF Central America Regional Programme Office and EcoAdapt in 2009 (Hansen *et al.* 2009). The authors propose that climate smart conservation, also referred to as climate informed conservation, and must fully integrate the effects of climate change into conservation practice. The specific use of the term climate smart here is likely a reflection of the growing use of the term within WWF (see the next sub-section "Climate Smart Conservation in WWF"). The authors do not define climate smart, but emphasise four principles that they see as crucial to climate change adaptation for conservation:

1. Protect adequate and appropriate space to support natural processes, places, and features that minimize or mitigate the effects of climate change
2. Reduce non-climate stresses, such as habitat degradation and destruction, overharvesting, pollution and invasive species
3. Adopt adaptive management, including creative measures to ameliorate the effects of climate change and modifications of more traditional approaches, and
4. Reduce rate and extent of climate change (mitigation).

These principles are an extension of an earlier WWF publication "Buying Time" in 2003 (Hansen *et al.* 2003). In particular CSC is taken to imply both adaptation *and* mitigation actions. The application of these principles is expected to vary depending on a number of context specific factors

of ecology, the regulatory framework, existing capacity, the availability of baseline data, and available funding.

There are no other uses of the term CSC in the formal peer reviewed literature. Other references of relevance to conservation refer to management of forests in South-Central British Columbia (Nitschke and Innes 2008), and management of terrestrial biodiversity in the north-eastern US (Nadeau *et al.* 2015). In both these cases, the authors refer to climate smart management and advise the integration of ecosystem vulnerability to climate change into conservation planning and management.

A significant elaboration of the concept of CSC has been undertaken by a coalition of US Federal and state agencies and non-governmental partners, led by the National Wildlife Federation (NWF) (Council on Climate Preparedness and Resilience Climate, and Natural Resources Working Group 2014). They provide the first clear definition of CSC in the literature: "the intentional and deliberate consideration of climate change in natural resource management, realised through adopting forward-looking goals and explicitly linking strategies to key climate impacts and vulnerabilities" (Stein *et al.* 2014). The definition is framed by four over-arching themes:

1. Act with intentionality, both deliberately and transparently, to link climate impacts (direct and indirect) to conservation actions.

2. Manage for change, not just persistence – respond and manage change, do not assume that change can always be resisted.

3. Reconsider conservation goals, not just strategies. Climate informed reconsideration may not require a wholesale revision, but may reveal a need to adapt goals such as what (the conservation target), why (the intended outcomes), where (the relevant geography) and when (the relevant timeline).

4. Integrate adaptation into existing work and processes (ibid).

NWF's approach is centred on the intentional and deliberate design of climate change adaptation efforts within conservation activities. This iteration has evolved from an early approach that focused on climate adaptation for biodiversity and ecosystems (Stein *et al.* 2013). NWF identify a number of key characteristics of CSC (Box 2), two of which are described as the heart of a climate smart approach and essential to achieving effective adaptation: linking actions to climate impacts, and embracing forward-looking goals. Other key characteristics that collectively shape this approach include; considering the broader landscape context; adopting strategies that are robust to uncertainty; employing agile and informed management; minimising carbon footprint (mitigation); accounting for climate influence on project success; safeguarding people and nature; and avoiding maladaptation (ibid).

Point Blue, a US not for profit organisation based in California, has similarly adopted CSC as central to its agenda. Point Blue defines CSC as an approach that 'specifically addresses impacts of climate change with other environmental threats' (Cohen 2013). It describes this approach as a nature based approach that reduces greenhouse gas emissions, enhances the benefits nature provides to humans, and improves the abilities of wildlife and people to adapt to a changing climate (Point Blue 2015a). Point Blue identifies six principles for CSC (adapted from NWF) including Point Blue 2015b:

1. Focus goals on future conditions, not past conditions

2. Design actions in an ecosystem context prioritising ecosystem function and ecological diversity with multiple species benefits

3. Employ adaptive and flexible approaches, including an adaptive management framework

4. Prioritise actions on best available science, across multiple plausible scenarios (including extremes, worst cases) and across multiple species

5. Collaborate and communicate across sectors, and
6. Practice the 10 % rule, by using 10 % or more of our time every day to develop and try creative new approaches to address climate impacts.

Box 2: NWF Characteristics of Climate Smart Conservation

Link actions to climate impacts: Conservation strategies and actions are designed specifically to address the impact of climate change in concert with existing threats; actions are supported by an explicit scientific rationale.

Embrace forward-looking goals: Conservation goals focus on future, rather than past, climatic and ecological conditions; strategies take a long view (decades to centuries) but account for near-term conservation challenges and needed transition strategies

Consider the broader landscape context: On-the-ground actions are designed in the context of broader geographic scales to account for likely shifts in species distributions, to sustain ecological processes, and to promote cross-institutional collaboration.

Adopt strategies robust in an uncertain future: Strategies and actions ideally provide benefit across a range of possible future conditions (including extreme events) to account for uncertainties in climate, and in ecological and human responses to climatic shifts.

Employ agile and informed management: Planning and resource management is capable of continuous learning and dynamic adjustment to accommodate uncertainty, take advantage of new knowledge, and cope with rapid shifts in climatic, ecological, and socio-economic conditions.

Minimize carbon footprint: Strategies and projects minimize energy use and greenhouse gas emissions, and sustain the natural ability of ecosystems to cycle and sequester carbon and other greenhouse gases.

Account for climate influence on project success: Managers consider how climate impacts may compromise project success, and avoid investing in efforts likely to be undermined by climate-related changes unless part of an intentional strategy.

Safeguard people and wildlife: Strategies and actions enhance the capacity of ecosystems to protect human communities from climate change impacts in ways that also sustain and benefit fish, wildlife, and plants.

Avoid maladaptation: Actions to address climate impacts on human communities or natural systems do not exacerbate other climate-related vulnerabilities or undermine conservation goals and broader ecosystem sustainability.

(Source: Stein et al 2014)

It is significant to note that WWF, EcoAdapt and NFW appear to have had some influence over each other's framing of climate smart - in particular, Hansen who formerly worked for WWF is cited in EcoAdapt's approach (where she is now an employee) and NWF's work to define CSC.

While there is limited reference to “climate smart conservation” in the literature, there is however, a large body of literature on nature-based approaches to climate change adaptation (eg ecosystem based adaptation, Box 3) and mitigation (eg REDD+). There are also many recommendations in the formal literature on the potential adaptation strategies for conservation to respond to climate change. A systematic review of recommendations for biodiversity conservation and climate change adaptation reveal four broad themes of action involving: regional institutional coordination for reserve planning and management to improve landscape connectivity; broadening spatial and temporal perspectives in management activities and practice, and the employment of actions that build system resilience; incorporating climate change into all conservation planning and actions; and addressing multiple threats and global change drivers simultaneously and in ways that are responsive to and inclusive of diverse human communities and cultures (Heller and Zavaleta 2009).This is reinforced in more recent literature (eg Mackey *et al.* 2008, Lawler 2009, Hole *et al.* 2011, Driscoll *et al.* 2012, Schmitz *et al.* 2015). Interestingly, there is an important bias in this literature as it largely neglects social science (Heller and Zavaleta 2009) and the importance of human behaviour in determining conservation (eg Watson *et al.* 2014).

Box3: What is Ecosystem-based Adaptation?

Adaptation can be achieved in a number of different ways. Of particular relevance to conservation actors is ecosystem based adaptation (EbA); an approach that integrates the use of biodiversity and ecosystem services into adaptation strategies to help people to adapt to the adverse effects of climate change (CBD 2009). Examples of EbA can include the conservation and restoration of forests to stabilise land slopes and regulate water flow, or the conservation of agrobiodiversity to provide specific gene pools for crop and livestock adaptation to climate change (CBD 2009). EbA explicitly puts people’s needs first (WWF 2013) through generating multiple social, economic and cultural co-benefits for local communities (CBD 2009). It also intends, where possible, to contribute to the conservation and sustainable use of biodiversity and assist climate change mitigation (CBD 2009).

EbA can be indistinguishable from community based adaptation (Reid 2015, 2014) - a community led process that empowers people to plan for and cope with the impact of climate change based on an understanding their priorities, needs, knowledge and capacities (IIED 2009). Activities that might be interpreted as EbA are often referred to as CbA or even disaster risk reduction (DRR) (ie actions taken to reduce or prevent the effects of disaster) (Doswald et al 2014). Key similarities between EbA and CbA are that both approaches: pay attention to the relevance of local specificities; recognise the role of ecosystem goods and services in people based adaptation; and operate at scale – building from the bottom up (ELAN 2012). Given this over-lap, practitioners should seek to integrate EbA and CbA for a more inclusive approach that is respectful of human rights, empowers communities and manages ecosystems in a way that enhances resilience and adaptation over time (ibid).

http://www.sciencedirect.com/science/article/pii/S1877343512001881

Across the major conservation organisations (other than WWF) there is no detailed reference to CSC. The IUCN are currently drafting a publication 'Responding to Climate Change; Guidance for protected area managers and planners' which is under consultation. Within the document, the IUCN make reference to NWF's definition and guidance on CSC (Gross *et al.* unpublished). We similarly found reference by an IUCN project on coral reef management that uses the NWF definition of CSC (IUCN undated). WCS also makes reference to CSC, though there is limited detail, and this approach appears to form part of the North America programme relating to NWF’s work which they part supported through their Adaptation fund. Other major conservation organisations acknowledge climate change and are pursuing a range of strategies, prominently including nature-based adaptation and mitigation (see Table 1The Wildlife Conservation Society

also makes reference to CSC but this is in reference to their support of NWF's work. Other major conservation organisations acknowledge climate change and are pursuing a range of strategies, prominently including nature-based adaptation and mitigation (see Table 2).

Table 2: International Conservation Organisations' Approach to Climate Change

Organisation	Approach
BirdLife International	*'BirdLife International's climate change programme is furthering research, analysis and understanding of the impacts of climate change on biodiversity. We advocate ambitious policy responses to mitigate and adapt to climate change that fully recognises the role of ecosystems.'* Their approach to climate change includes support for: • REDD+ • EbA • Renewable energy • Policy advocacy internationally, and • Reduction of their own carbon footprint.
Conservation International	*'CI has been pioneering ways to help communities adapt to challenges like rising sea levels, severe storms and more frequent flooding. We also develop new ways of farming that support a healthy environment, minimize climate impacts and create a better quality of life for farmers. And, in addition to on-the-ground expertise and scientific know-how, CI offers practical recommendations that policymakers need to make smart decisions.'* Their approach to climate change includes support for: • REDD+ • Blue Carbon • EbA, and • Policy advocacy and decision making support locally, nationally and internationally.
Fauna and Flora International	*'Change to global weather patterns is one of the greatest threats that will face biodiversity over coming years, and we are working to reduce the risks through supporting emissions reductions from natural habitats and by developing adaptation plans.'* Their approach to climate change includes support for: • REDD+ • Climate Change Adaptation Planning in their project sites, and • Reduction of their own carbon footprint.

The Nature Conservancy	*'The Nature Conservancy is mobilizing diverse partners and stakeholders at every level to create a cleaner, safer world. We promote nature-based solutions to help control carbon pollution and protect against climate impacts, and we work across all economic sectors to reduce greenhouse gas emissions.'* Their approach to climate change includes support for: • REDD+ • Ecosystem based adaptation, and • Policy advocacy nationally (ie US) and internationally (ie UNFCCC).
Wetlands International	Their approach to climate change includes support for: • Climate mitigation – eg restoration of peatlands • Disaster Risk Reduction • Water security – eg river restoration • Green Economy – ie economic development harmonious with conservation and sustainable use of wetlands.
Wildlife Conservation Society	*'WCS uses cutting-edge science to understand the impacts of climate change on wildlife and natural resources, plan conservation for a rapidly changing world, and implement on-the-ground solutions to protect ecosystems.'* Their approach to climate change includes support for: • REDD+, and • Adaptation, including ecosystem based adaptation. WCS's climate change programme makes reference to climate smart conservation: *'WCS ensures that the planning frameworks in WCS priority land/seascapes and species is climate smart by incorporating information on climate vulnerability for both species and humans' (WCS 2015).*

The rationale for climate smart conservation

Becoming climate smart means fully accounting for climate change – that is considering, preparing for and addressing climate risks; reflecting the needs and concerns of vulnerable ecosystems and people; and limiting emissions that contribute to climate change (Philips *et al.* 2015). A key rationale for adopting this approach is that simultaneously pursuing development/conservation, adaptation and mitigation avoids undermining either agenda, and could create opportunities for multiple benefits in the short and long term as well as explicitly recognise trade-offs (ibid). In addition, the approach gives equal weight to adaptation, with mitigation dominating global attention in the past (ibid).

2.4 Climate Smart Conservation in WWF

WWF's approach to climate change initially drew attention to "buying time" for ecosystems through conservation programmes, while waiting for global efforts to stabilise greenhouse gas emissions and limit the rate and extent of climate change (Hansen *et al.* 2003). The emphasis for WWF was on building ecosystems' resistance *and* resilience through protecting adequate and appropriate space; limiting all non-climate stresses; and using active adaptive management and strategy testing (ibid). Today, WWF's ambition is to become climate smart throughout its projects and programmes (WWF NCAT 2012).

WWF's climate smart approach originated from a review of the scale of challenges presented by climate change to WWF's operations and a presentation of options to increase resilience (Wilby *et al.* 2008). This review emphasised that even under modest levels of climate change, development and conservation programmes could fail to realise benefits, or worse, could contribute to increased vulnerability or reduced resilience. Some of the report's key recommendations included realising the climate mitigation benefits for conservation; defining a common adaptation framework; and moving from project to programme-based working. Significantly, the authors suggested that to progress, WWF should embed climate smart principles into its monitoring and reporting, portfolio screening, knowledge and capacity building and decision support tools and guidance (ibid).

Accordingly, pursuing climate smart conservation has become of strategic importance to WWF. This is evidenced in the statements of the WWF Network Climate Adaptation Team's (NCAT) meetings. In 2010, WWF NCAT released a statement drawing attention to WWF's dated perspective of a world with static climate (WWF NCAT 2010). They suggested that the organisation needed to undergo a paradigm shift to CSC (ibid). This message has since been reinforced by an appeal to the WWF leadership to mandate climate smart strategies, and progress the conversation within WWF from adaptation projects to mainstreaming and influencing policy (WWF NCAT 2014). NCAT underline that becoming climate smart is an opportunity to increase WWF's influence, as well as a necessity to achieve their core conservation mission (ibid).

For WWF, embracing CSC is also a priority to ensure that it continues to meet the requirements of donor agencies. The UK Department for International Development (DfID), for example, considers climate smart practice as crucial, as otherwise failure to take climate change into account could lead to progress on development being reversed (DfID date unknown).

WWF's working definition of CSC as an approach to 'understanding and preparing for current and future changes in Earth's climate, with the aim of building the resilience of human and natural systems, and contributing to climate mitigation' (WWF UK 2015). 'It promotes the role and benefits of biodiversity and ecosystems in climate adaptive and low carbon development pathways, whilst monitoring the impacts (positive and negative) of climate change on our natural world' (Saunders 2014).

As such, WWF now consider its role to involve creating space for mitigation (WWF UK 2008) and adaptation (WWF NCAT 2012) both within its conservation programmes and externally through working with UN agencies, national governments and bilateral and multilateral donor agencies (WWF 2015). For example, in 2011, WWF US published a report outlining principles of climate-adaptive institutions - including forward thinking; mainstreaming climate adaptation; creativity/experimentation and learning; and collaboration and partnerships (Cook *et al.* 2011). It has also increased its emphasis on resilience WWF's "RACER" tool [1], for example, is intended to assess ecological resilience in the Arctic and whether this will persist under different climatic conditions in the future.

For WWF, becoming climate smart is about 'how we work' (Martin 2011) through a forward looking and ongoing process to build climate resilient social-ecological systems (WWF NCAT 2012, Martin *et al.* 2012). This is reflected in the WWF UK policy statement on international climate change

[1] http://wwf.panda.org/what_we_do/where_we_work/arctic/what_we_do/climate/racer/

adaptation, which underlines that adaptation responses promoted by WWF must "seek to reduce human actions which undermine ecosystem resilience, and build capacity of relevant stakeholders to adapt to current and future climate change, while respecting principles of ecosystem integrity and poverty reduction" (Vaughan *et al.* 2009).

To aid projects and programmes, WWF NCAT (2012) have outlined four principles integral to CSC:

- Understanding the implications of climate change including how human responses might lead to changes in other conventional threats
- Developing and implementing no-regret actions that address current threats, do not erode options for responding to future climate change, and avoid contributing to greenhouse gas emissions
- Taking an integrated approach to adaptation, contributing to nature conservation and to fair and equitable sustainable development, and
- Active learning to build capacity and work collaboratively to plan and respond to increasing change and uncertainty.

These principles have been incorporated into WWF's Programme Standards of Conservation for designing, implementing and monitoring conservation projects and programmes in the WWF network (WWF 2012). Additionally, a fifth principle has been added to recognise WWF's ambition to engage with external actors (WWF Website 2015):

- Bringing about changes in policy that create and enabling environment across scales (local to international) for adaptive governance.

WWF UK has used these principles to advance CSC as a central component of its Programme Partnership Arrangement (PPA) with DFID from 2011-2016. The PPA is viewed by WWF as a valuable opportunity to explore, demonstrate, learn from, and promote CSC in their country (Brazil Colombia, Nepal, Kenya, and Tanzania) and regional programmes (China-Africa and Coastal East Africa) (WWF PPA Ning Website 2015).

In the WWF Colombia programme, work on climate adaptation began in 2006 and focused on climate change vulnerability assessment (Guevara *et al.* 2014). Subsequently, as part of the PPA, and with the support of WWF UK, the team has developed a reflexive approach to becoming climate smart: 'instead of asking if a landscape is vulnerable to climate change, and by how much, can we think about how much climate adaptation is needed? What are the guiding principles to adapt to a changing climate? What do those patterns suggest about future pathways of influence?' (pp. 20 ibid). As part of this evolving approach, WWF Colombia are currently applying 'learning by doing' to shape CSC as a process of organisational and cross-organisational learning (ibid).

WWF Colombia defines CSC as understanding that the 'climate is dynamic and interacts with other environmental conditions, and therefore offers complex and variable scenarios for ecological and social systems that needs to be addressed by visionary goals that consciously and deliberately consider the risks, challenges and opportunities for changing climate' (Guevara *et al.* 2014). Here, visionary goals are conceived as adaptation, resilience or mitigation related goals (Guevara 2015). In developing their conceptual framework for CSC, WWF Colombia underline that CSC does not focus exclusively on climate-related threats, rather it adapts current ways of working and explores new approaches to address existing threats, such as habitat loss, in the face of climate change. Additionally, while CSC may appear to look like business as usual, there are important nuances to a climate smart project cycles. For example, CSC requires a greater emphasis on learning and on-going processes of adaptive management.

Despite this progress by WWF Colombia, overall across PPA programmes there is a perceived lack of clarity over the concept of CSC. At a recent WWF PPA portfolio learning workshop, programme staff acknowledged that the rhetoric around CSC is loud, but they are unsure how to integrate this

effectively into programme cycles and operational practices (WWF UK 2014). Part of the confusion is related to understanding what CSC is in practice, and how this differs from existing conservation and livelihoods practices (and presumably from other approaches such as EBA and REDD+). Programme staff also noted broader challenges in pursuing relevant and feasible climate smart practice such as creating an enabling environment for CSC, particularly through effectively engaging in national processes (ie national climate change action plans) (ibid).

3. Pro-poor conservation – origins, use and application

3.1 Where did "Pro-poor" come from and what does it mean?

"Pro-poor" is not a novel term – it can be found in the literature on distributive economics as far back as the 1960s, but first became common in the international development lexicon in the late 1990s and 2000s as part of the refocussing of international development on global poverty reduction. The early usage of the term was in relation to "pro-poor growth". Economic growth has always been seen as the primary means of development. In 1990, the World Development Report (World Bank 1990) made it clear that economic growth was not enough and that growth that provided opportunities for the poor was required. The term "pro-poor growth" (and related terms of "inclusive" or "broad-based" growth) was coined in response. There has been debate over what exactly it means to be "pro-poor" in this context. Some favour a relative measure, which states that growth is only pro-poor when the incomes of the poor rise faster than those of the better-off (ie the poor have to benefit disproportionately compared to the non-poor). Others argue for an absolute measure, looking only at whether the economic conditions of the poor are improving (ie the poor receive net benefits from growth but it is irrelevant whether other groups are receiving greater or lesser net benefits) (Ravallion 2004). A more fundamental problem is defining who are the poor in order to then be able to frame interventions to deliberately benefit them (Box 4).

Box 4: What is poverty and who are the poor?

Poverty is a term with many different definitions. The simplest usually relate to some level of material wealth – for example the Millennium Development Goals defined people living in extreme poverty and those whose income is less than $1 a day. But it is also widely recognised that poverty is about more than a lack of money. In the Millennium Ecosystem Assessment it is defined as a "profound deprivation of well-being" – where well-being includes security, health, freedom of choice and action, as well as the basic materials for good life (food, shelter, livelihoods, access to goods) (MA 2005). Bass et al (2005) identify a number of factors that contribute to poverty:

- Inadequate and often unstable income - resulting in inadequate consumption of necessities that need to be purchased – including food, water, medicine, school fees)
- Inadequate, unstable or risky asset base – including both material assets (eg productive land, savings) and non-material assets (eg health, education)
- Poor quality, insecure, hazardous or overcrowded housing
- Inadequate provision of public infrastructure (eg sanitation, piped water, roads)
- Inadequate provision of basic services (eg schools, healthcare, communications)
- Limited or no safety net – to ensure consumption needs met and access to other necessities eg health, schools is available without the means to pay
- Inadequate protection of poorer groups rights through operation of the law – particularly protection of land and resource rights, and
- Lack of political voice and power – resulting in little or no entitlements to goods and services; little of no ability to hold government, NGOs etc to account.

Bass et al.'s analysis focuses on the links between poverty and environment and they note that the relevance of environmental management to poverty alleviation is not immediately obvious when poverty is narrowly conceptualized around income or food consumption. It does, however, become much more obvious with these broader understandings of poverty that focus on assets, security and political power.

Poverty can also be absolute – measured with reference to an agreed international or national poverty line - or relative, reflecting wealth differences between countries, households, villages etc. It can be temporal (some people are poor at some times of the year but not at others – often linked to the seasonality of resource access) or it may be chronic (lasting for many years).
http://www.sciencedirect.com/science/article/pii/S1877343512001881

Pro-poor growth has been discussed in the context of conservation and natural resources management. For example, Bass and Steele (2006) document how environmental assets such as forests and fisheries can be used to support pro-poor growth in low income countries through two main mechanisms: 1) national economic growth (creating jobs, and adding to government revenue which can be used for pro poor purposes) and 2) local economic growth through development of small and medium enterprises. Similarly, OECD (2008) emphasises how poor people's livelihoods in rural areas remain dependent on soil, water, forests and fisheries and that with sound management, these and other natural resources can provide the basis for long term sustainable pro-poor growth.

Since the 2000s the pro-poor terminology has been applied to other sectors – often as a strategy to make a link to the poverty focus of development assistance agencies. A notable example here is "pro-poor tourism", a term which was coined in a report to the UK Department for International Development on the role of tourism in contributing to the poverty reduction agenda (Bennett, Roe and Ashley 1999). Pro-poor tourism is described as an approach to tourism (rather than a specific product or sector such as ecotourism) that generates net benefits for poor people (Ashley *et al.*

2001). One of the suggested principles of pro-poor tourism is that there should be an explicit focus on expanding benefits (including income, infrastructure and empowerment) to the poor – not just on minimising costs. In common with many other pro-poor approaches, however, pro-poor tourism does not specify a definition of "the poor" and certainly does not promise to be able to reach the poorest of the poor.

Pagiola (2007) discusses the concept of pro-poor with respect to Payments for Environmental Service (PES) schemes, noting that "A pro-poor PES program is one that maximizes its potential positive impact and minimizes its potential negative impact on the poor." One type of PES scheme which has received particular scrutiny through a pro-poor lens is Reduced Emissions for Deforestation and forest Degradation (REDD) (Box 5).

Box 5: What is REDD?

Reducing Emissions from Deforestation and Forest Degradation (REDD) first emerged as a potential response to tackling the estimated 20% of greenhouse gas emissions arising from destruction of tropical forests. The concept was originally termed "Avoided Deforestation" and was discussed at the 11th Conference of Parties (CoP) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2005 as part of the early negotiations on a follow-up to the Kyoto Protocol. The idea was that developing countries could be rewarded financially for any emissions reductions resulting from a decrease in the conversion of forests to other land uses (measured against an established baseline reflecting current and/or projected rates of deforestation)

In 2009, following lobbying from a number of countries as well as NGOs and private companies, the scope of REDD was broadened to include "conservation"; "sustainable management of forests"; and "enhancement of forest carbon stocks". REDD thus evolved into "REDD+" – a term that was officially adopted by the UNFCCC at CoP16 in 2010.

The REDD Desk - an online information portal – notes that as a consequence "REDD+ has the potential to simultaneously contribute to climate change mitigation and poverty alleviation, whilst also conserving biodiversity and sustaining vital ecosystem services." (REDD Desk 2015)

The Paris Agreement – the output of UNFCCC CoP 21 held in December 2015 - explicitly recognizes the role forests in contributing to climate change mitigation and endorses the REDD+ mechanism and a number of countries and multilateral institutions have started to pledge significant funding for forests and resilient landscapes as a consequence (World Bank 2015).

Mohammed (2011) drawing on Peskett *et al.* (2008) suggests 10 requirements to make REDD "work for the poor" while CARE (2009) adopts an explicitly pro-poor approach specifying: 1) Poverty reduction benefits reach poorer households, women and other marginalised groups within poor communities; 2) No negative social impacts, or where such impacts are inevitable, effective mitigation measures are put in place to achieve a net "do no harm" outcome; 3) Equitable sharing of benefits between local, national and international levels; and 4) Human rights are respected, protected and secured. IUCN (2014) builds further on CARE's approach noting that "Pro-poor approaches for REDD+ draw attention to the interests of forest dependent people and the need for REDD+ not to harm vulnerable groups but instead to strengthen their rights and improve their livelihoods. Particular importance is given to the interests of women, indigenous peoples and other local communities." IUCN identifies seven principles for pro-poor REDD+ (Box 6).

Box 6 Principles for Pro-Poor REDD+

1. Ensure vulnerable groups are informed, consulted and participate in decision making at all levels and phases of the REDD+ process, in an enabling environment
2. Guarantee rights and access to information about processes and outcomes of REDD+ including the positive and negative impacts on the environment and livelihoods of communities
3. Ensure equitable and transparent sharing of benefits and responsibilities vertically and horizontally, with specific attention to vulnerable groups
4. Clarify and secure the rights (of access, use and control) to resources (land/tree/forest/carbon) of vulnerable groups
5. Recognize and integrate customary practices and values in the design and implementation of REDD+ activities
6. Establish and address the nature and scope of forest dependency, particularly among vulnerable groups, and
7. Enhance resilience of vulnerable livelihoods through conserving and restoring natural ecosystem functions, including biodiversity.

Source: IUCN 2014

3.2 Pro-poor conservation

The term "pro-poor conservation" was first used in 2002 by IUCN and by DFID. Responding to the poverty alleviation agenda enshrined in the Millennium Development Goals, IUCN produced a policy brief in which pro-poor conservation is described as "Putting Conservation to Work for the Poor" and encouraged governments to *inter alia* allocate greater rights and responsibilities for the use, management and ownership of environmental assets to the poor, including through equitable governance structures and appropriate policy and pro-poor market mechanisms. The DFID Wildlife and Poverty Study (DFID 2002) - a report commissioned by DFID as it considered the viability of continuing to invest in conservation projects, given its poverty reduction mandate - identified some major challenges for those aiming to bring about both poverty reduction and sustainable wildlife use. These include:

- Ensuring that the poor capture a fair share of the economic and livelihood benefits of conservation
- Ensuring that where poor people depend on wild resources, these are not overexploited at the local level – ie enabling effective communal management, and
- Ensuring that the costs of supplying wildlife as an international public good are not borne excessively by the poor.

The Study highlighted that wildlife is an international public good in which there has been a significant investment of funds but that conservation of this public good had placed considerable costs on poor people. Despite this, the degree to which poverty issues had been mainstreamed and monitored within conservation institutions was low. The Study therefore defined pro-poor conservation as "integrating poverty issues into the work of the leading conservation organisations" (DFID 2002).

Building on the wildlife and poverty study, Roe *et al.* (2003) propose pro-poor conservation as a new narrative, "where conservation is integrated into development and poverty reduction

agendas." The paper goes on to highlight several key characteristics of pro-poor conservation including:

- "Focussing on people first, with poverty reduction and livelihood security as core objectives", and
- "Pro-poor conservation seeks to ensure that the voices and needs of poor people are central to conservation decision-making".

Adams *et al.* (2004) draw on this early literature to summarise 'pro-poor conservation as "conservation strategies that are designed to deliver both poverty reduction and biodiversity protection". Roe and Elliott (2006) elaborate the concept further, describing pro-poor conservation as "harnessing conservation in order to deliver on poverty reduction and social justice objectives." They suggest that it can be defined in a number of ways:

1. By outcomes: conservation that delivers net benefits to poor people.
2. By process: a progressive change in practice of conservation organisations – from using poverty reduction as a tool for better conservation through to using conservation in order to deliver on poverty reduction.
3. By actions: conservation strategies that are explicitly designed to address the challenge of poverty reduction and development strategies that recognise the role of biodiversity conservation
4. By drivers: conservation that puts poor people and their priorities at the centre of decision-making.

They go on to suggest that pro-poor conservation can take a number of different forms and encompasses a spectrum of approaches (Figure 4):

- Community-based conservation/CBNRM can deliver on poverty reduction objectives but requires strong institutions, equitable benefit sharing mechanisms, government recognition and, in many cases, effective partnerships with the private sector for wildlife based enterprises.
- Integrated conservation and development projects with their dual objectives would appear to be the ideal way forward but many have focussed on promoting so-called "alternative" livelihood projects as a diversion from wildlife use rather than using conservation in order to help diversify livelihood strategies and deliver development objectives. There is therefore a need to focus on the I in ICDP.
- Direct payments such as conservation concessions can be pro-poor as long as:
    - Social impact assessments and stakeholder analysis are carried out to ensure that the payments go to those who bear the costs – particularly challenging in the absence of clear property rights for poor people
    - Payments are sufficient to cover the full cost of conservation (including opportunity costs), and
    - Contracts are transparent and renegotiable and reflect the need for short-term flexibility to achieve sustainable livelihoods.
- Traditional protected areas also have pro-poor potential, particularly as cornerstones in the realisation of national comparative advantage in wildlife tourism in high tourism potential countries of southern and eastern Africa, but:
    - Their establishment must be based on the free prior and informed consent of indigenous peoples and local communities.

- Thorough impact assessments must be undertaken with the full participation of indigenous people and local communities to identify potential negative impacts and provision made for full and fair compensation or mitigation where appropriate
- Marginalised groups – eg nomadic pastoralists, indigenous people - must be given recognition as well as those who are more powerful.
- Mechanisms for including local conservation values (which might be based on culture and utility – eg as medicinal plants or food crops or meat) as well as global values (often based on rarity and charisma) are needed in determining conservation priorities.
- Equitable sharing of rights, responsibilities, costs and benefits is required between all relevant actors – this implies mechanisms for enhancing North-South financial flows, balancing customary and formal norms and institutions and recognising historic tenure rights.

Table 3: A Typology of Pro-Poor Conservation

Overarching objective moves from conservation to poverty reduction

Approach	Description	Examples
Poverty reduction as a tool for conservation	Recognition that poverty issues need to be addressed in order to deliver on conservation objectives. Poverty is a constraint to conservation.	Alternative income generating projects; many integrated conservation and development projects; many community-based conservation approaches
Conservation that "does no harm" to poor people	Conservation agencies recognise that conservation can have negative impacts on the poor and seek to provide full compensation where these occur and/or to mitigate their effects	Social impact assessments prior to protected area designations; compensation for wildlife damage; provision of locally acceptable alternatives when access to resources (water, grazing, fuelwood etc) lost or reduced or compensation for opportunity cost of land foregone.
Conservation that generates benefits for poor people	Conservation still seen as the overall objective but designed so that benefits for poor people are generated	Revenue sharing schemes around protected areas; employment of local people in conservation jobs; community conserved areas

	Conservation as a tool for poverty reduction	Poverty reduction and social justice issues are the overall objectives. Conservation is seen as a tool to deliver on these objectives	Value of wildlife reflected in national poverty reduction strategies; wildlife based enterprise; pro-poor wildlife tourism

The next use of the term pro-poor conservation in the literature is in an article by Kaimowitz and Sheil (2007) who ask the question: *conservation of what and for whom?* They propose that pro-poor conservation requires "finding, developing, maintaining and safeguarding managed landscapes that include adequate areas to serve as sources of fauna and flora for local people – especially those who are vulnerable and marginalised". They suggest that this means:

- An emphasis on places where many people rely on declining wildlife resources with few substitutes
- Invest resources outside large strictly protected areas – biodiversity must be accessible and people must have rights to use it
- Maintain plants and animals that local people use
- Work with communities rather than fencing them out - go beyond participatory efforts that are intended to win local acceptance of other people's conservation agendas
- Focus on the weak and vulnerable as well as the influential, and
- Recognise, understand and address the needs of the poor and the threats to those needs.

The Millennium Ecosystem Assessment (2005) does not use the term pro-poor conservation but advocates a similar approach, pointing out that for conservation to contribute to poverty alleviation "priority would need to be given to protecting the biodiversity that is of particular importance to the well-being of poor and vulnerable people." Similarly Kareiva and Marvier (2007) note the need to "focus on conserving ecosystems in places where biodiversity delivers services to people in need" (Kareiva and Marvier 2007).

Fisher *et al.* (2005) adopt a different position, emphasising that "we are not proposing that conservation agencies…..become development focused agencies…. Rather it is about finding more appropriate, more equitable and more realistic ways of achieving conservation." Fisher *et al.* propose a number of key principles of such an approach including:

1. All conservation initiatives should strive to ensure they do not make the poor worse off
2. The costs of conservation should not be imposed on those least able to absorb them
3. Best practice measures designed to offset the impact of conservation activities should maintain, if not expand, development options rather than leaving people in a poverty trap
4. Conservation ought to contribute actively to poverty reduction more broadly where it can
5. Strengthening access to natural resources will contribute to secure livelihoods for the people who depend on them, and
6. Monitoring and evaluation of all conservation activities needs to take account of social impact assessment.

Davies *et al.* (2013) synthesise the earlier literature on pro-poor conservation defining it as 'a people-centred approach that has poverty reduction and livelihood security as core objectives and

seeks robust conservation approaches to achieve these.' They go on to elaborate that pro-poor conservation "builds on the poor's priorities and capabilities, effectively engages all stakeholders in addressing the underlying policy and institutional drivers of environmental degradation and empowers vulnerable groups with the assets, rights and entitlements they need to improve their lives through sound environmental management. Pro-poor conservation can take a number of different forms and encompass a variety of approaches, including: community-based conservation initiatives, direct payments (REDD+) and locally managed protected areas."

Different stances to pro-poor conservation amongst different conservation actors

In practice, different organisations – and individuals - have different perspectives on the links between biodiversity conservation and poverty alleviation and their roles and responsibilities in addressing these links (Adams *et al.* 2004). This in turn influences the approach to pro-poor conservation that they might – or might not - take. IUCN, as a membership organisation, provides a useful proxy for the attention to poverty afforded by the conservation community over time. The membership of IUCN has agreed a vast body of Recommendations and Resolutions that cover the rights and roles of Indigenous Peoples and local communities in conservation. Analysis by Jonas *et al.* (2014) demonstrated an increase in the proportion of resolutions which reference "Indigenous Peoples" or "local communities" from just over 6% at the first World Conservation Congress in Jordan in 2000 to over 21% at the fourth World Conservation Congress in South Korea in 2012. Perhaps the most pertinent is the Recommendation V.29 on Poverty and Protected Areas adopted at the World Parks Congress in 2003 which clearly states that "Protected areas should strive to contribute to poverty reduction at the local level, and at the very minimum must not contribute to or exacerbate poverty " (IUCN 2003). It also emphasises the need for equitable sharing of benefits and costs and introduces the concept of compensation for negative impacts incurred. The recommendations goes so far as to suggest a set of pro-poor principles (Box 7).

Box 7: Pro-poor conservation principles from the IUCN Recommendation V.29 on Poverty and Protected Areas

a. Build partnerships with poor communities as actors and shareholders in protected area development

b. Strengthen mechanisms for the poor to share actively in decision-making related to protected areas and to be empowered as conservationists in their own right

c. Develop 'pro-poor' mechanisms to reward environmental stewardship, including payments for environmental services, to minimise and mitigate damage to both biodiversity and to livelihoods, and to provide fair compensation for losses incurred from human-wildlife conflicts and from restricted access and decreased environmental services

d. Respect and recognise customary ownership, use and access rights for local people, particularly for the poor, during the negotiation and decision-making processes, and preventing further loss of customary rights

e. Improve accountability and transparency of decision-making processes related to protected areas

f. Develop more inclusive interpretations of protected area categories that reflect the interests and initiatives of the poor, including the role of Community Conserved Areas

g. Foster programmes of restoration to deal with modified and degraded areas that yield biodiversity benefits as well as providing goods and services to improve livelihoods within protected areas and in the landscape surrounding them, and

h. Encourage governments to reflect the above principles regarding local rights and opportunities related to protected areas in their legal and regulatory frameworks.

Similar principles can also be identified within the Decisions of the Convention on Biological Diversity (CBD) Decision VI/7 on impact assessment notes that special attention should be given to species that are important for local livelihoods while the Global Strategy for Plant Conservation (GSPC) agreed in 2002 includes a specific target to halt the decline of plant resources that support livelihoods. *Sustainable use* is seen to be a key tool for pro-poor conservation in the CBD. The Addis Ababa Principles adopted at CoP7 in 2004 recognise the need for devolution of resource rights to the local user level and that 'the needs of indigenous and local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources' (SCBD 2004).

The CBD emphasises the role of biodiversity in contributing to poverty reduction. Decision IX/9 suggests that the post-2010 Strategic Plan should 'highlight the importance of biodiversity for poverty eradication and the achievement of the Millennium Development Goals, taking into account that conservation and sustainable use of biodiversity should contribute to poverty eradication at local level and not harm the livelihoods of the poor.' In addition to the major outputs of CoP 10 (the Nagoya Protocol and the Strategic Plan for Biodiversity 2011-2020), one Decision (X/VI) has a sole focus on poverty and is the culmination of numerous previous Decisions emphasising the need for integration of biodiversity and poverty agendas. Most recently, the Chennai Guidance for the Integration of Biodiversity Conservation and Poverty Eradication adopted at CoP 12 in 2014 emphasises the need to protect customary use of, and access to, natural resources (recognising the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in this context) and to strengthen community-based management.

The rationale for pro-poor conservation

The literature described above reveals three key arguments for adopting a pro-poor approach to conservation. The first is pragmatic – aligning conservation with the goals of donor agencies. Development agencies have traditionally been significant donors to the conservation sector and conservation agencies have thus recognised a need to respond to the post-1990s development agenda of poverty reduction. As IUCN (2002) points out "'we are convinced that to remain relevant, the conservation movement must engage more actively with fighting poverty'. The same argument can be applied to efforts to "mainstream" biodiversity conservation into national development plans, poverty reduction strategies and other high level policies that influence where development assistance funding is likely to be channelled.

The second is practical – the poor depend on biodiversity and the conservation sector can thus do a lot to support poverty alleviation as part of its normal business. As Fisher *et al.* (2005) note: "Conservation ought to contribute to poverty reduction more broadly where it can – as in the restoration of ecosystems – simply because it can." Equally, poverty can be a constraint to achieving conservation goals, hence it needs to be addressed in order for conservation to be successful (Adams *et al.* 2004). Furthermore, both biodiversity conservation and poverty reduction are both major international challenge, and addressing both together can make the task of each easier (Roe and Elliott 2004, Davies *et al.* 2013). As Fisher *et al.* (2005) point out, the issue is not promoting poverty over conservation, but acknowledging that poverty reduction and conservation are important objectives… at times it is necessary to address both in order to achieve either (Fisher *et al.* 2005).

The third argument is an ethical one. It highlights serious equity issues associated with northern-centric approaches to biodiversity conservation – particularly those based around exclusionary protected areas that seek to separate people from nature (Roe & Elliott 2004). It also highlights that conservation actions can conflict with other ethical obligations – by curtailing for example, the ability of people to make a living, which is an obligation and core right recognised in the UN Declaration of Human Rights… 'Everyone has the right to a standard of living adequate for [their]

health and well being'. (Robinson 2011). This ethical argument forms the basis of the IUCN "do no harm" philosophy which is enshrined it its recommendation on protected areas and poverty.

Related approaches

While the specific narrative of "pro-poor" conservation was driven by a response to the new poverty reduction agenda of the late 1990s and 2000s, the debate about the links between conservation and poverty is much older. The IUCN General Assembly adopted the Zaire Resolution in 1975 which stated that indigenous peoples' rights should be taken into account in national parks and other protected areas (Holdgate, 1999). The World Conservation Strategy (IUCN *et al.* 1980) emphasized the links between environment and development and coined the term sustainable development as a process in which conservation and development were mutually interdependent. Meanwhile, the Bali Action Plan, an outcome of the 3rd World Parks Congress in 1982, was described as a 'revolutionary advance in linking the conservation of protected areas with social and economic development' (McNeely and Miller, 1982). In 1985 WWF recognized the need to take poverty and local economic development around protected areas seriously, with the launch of its Wildlife and Human Needs Programme. The Programme comprised 20 projects that sought to combine conservation and development in developing countries. Other Integrated Conservation and Development Projects (ICDPs) or community wildlife management programmes quickly followed.

Concern for human rights and social justice have thus long been on the conservation agenda (albeit contested in terms of the degree to which they have been upheld eg Griffiths 2005), way before any pro-poor terminology became common-place. Many still favour an emphasis on a "rights-based" approach to conservation where "conservation practice respects rights in all cases and supports their further realisation where possible" (Campese *et al.* 2009). This approach is implicit in the Conservation Initiative on Human Rights (CIHR), a joint commitment by IUCN, FFI, Birdlife, Wetlands International, WCS, CI, TNC and WWF (Box 8). Fisher *et al.* (2005) see poverty reduction as a fundamental human right that conservation should be committed to support - thus making the link between the rights-based and pro-poor agendas.

Box 8: The Conservation Initiative on Human Rights

As CIHR members, we committed to improving our own human rights practices, and to establishing and promoting best practices for the conservation community as a whole. Motivated by our common interest, the group collectively advances the positive linkages between conservation and the rights of people to secure their livelihoods, enjoy healthy and productive environments, and live with dignity. We have committed to four common principles that guide integration of human rights throughout each organization's policies and practices. These principles are:

1. Respect human rights Respect internationally proclaimed human rights; and make sure that we do not contribute to infringements of human rights while pursuing our mission.

2. Promote human rights within conservation programs Support and promote the protection and realization of human rights within the scope of our conservation programmes.

3. Protect the vulnerable Make special efforts to avoid harm to those who are vulnerable to infringements of their rights and to support the protection and fulfilment of their rights within the scope of our conservation programmes.

4. Encourage good governance Support the improvement of governance systems that can secure the rights of indigenous peoples and local communities in the context of our work on conservation and sustainable natural resource use, including elements such as legal, policy and institutional frameworks, and procedures for equitable participation and accountability.

Source: CIHR 2014

3.3 Pro-poor conservation in WWF

At a global level, WWF's broad mission statement, global framework and goals (WWF 2008, WWF global websites) do not specifically mention pro-poor conservation but they highlight a number of PPC principles already discussed above, specifically:

- Conserving populations of species that are not just ecologically and economically important but also culturally important
- Ensuring equitable sharing of natural resources
- Ensuring provision of ecosystem goods and services that sustain local livelihoods, and
- Strengthening local communities' ability to conserve the natural resources they depend upon.

In the mid-2000s, WWF UK was critically reviewed by Hobley *et al.* (2006) who noted that "although the strap-line provides a starting point - 'build a future in which humans live in harmony with nature' its descriptors of what should be done move away from the people side to one heavily focused on conservation and environment." Nevertheless, two internal reviews - the first based on the WWF Network and the second on Asian programmes - of WWF's work on poverty-related issues noted that a significant proportion (20-25%) of WWF projects addressed poverty in a substantial way (Rietbergen-McCracken 2007, LAN 2006 cited in WWF Poverty Cluster 2009a). These reviews indicated that one of WWF's main motivations for addressing poverty (beyond donor requirements) was the recognition that it was necessary in order to achieve their conservation objectives (the practical or instrumental rationale discussed earlier). A WWF Poverty Cluster review notes "Most of WWF's poverty-related initiatives in the field are designed to reduce the costs that local people pay for conservation, and to provide them with some lasting benefits" but that few programmes had systematically integrated poverty into their conservation agenda. Partly in response to the different conclusions arising from the reviews of different parts of WWF, the Poverty Cluster recommends that WWF develop a clear policy on conservation and poverty (WWF Poverty Cluster 2009a).

Another briefing (WWF Poverty Cluster 2009b) suggests a number of principles that WWF should adopt in its work – all of which are contained in other approaches to pro-poor conservation discussed above:

- Adopt holistic approaches in the analysis of the underlying causes of environmental loss and degradation and its linkages with poverty
- Strengthen understanding and use of approaches for social and institutional change
- Forge new partnerships with development and humanitarian agencies, and
- Upgrade and formalize accountability to local communities.

In 2009, WWF produced a global policy statement on which specifically commits to the network to pro-poor conservation: "In many instances, particularly where poverty levels are high and people are heavily dependent on natural resources for their wellbeing, WWF will take a pro-active position, embracing a pro-poor approach to conservation, and making special efforts to enable local people to play a key part in crafting solutions for sustainable development" (WWF 2009). WWF's approach to pro-poor conservation recognises that in some cases poor people present a threat to conservation – pro-poor conservation is thus a pragmatic approach. It also embraces the principles of "do no harm", however, recognising that at times conservation can cause negative impacts on poor people which must be avoided or mitigated: "Where conservation goals are jeopardized by poverty or, conversely, the goals themselves threaten to further marginalize poor

people, WWF will adopt pro-poor approaches. Such approaches put people at the centre of the analysis and the forefront of any intervention, seeing them as key to the solution rather than as part of the problem." The policy sets out some key pro-poor conservation principles (Box 9).

Box 9: WWF's Pro-Poor Conservation Principles

WWF commits to:

1. Seeking to understand the poverty-environment linkages and the socio-cultural and economic context in each area where we work; this would include learning about the relationships between poverty and natural resource use and environmental quality.

2. In our project, programme and policy work, assessing the poverty implications of our activities in order to identify opportunities for positively contributing to poverty reduction as well as to address potential conflicts and trade-offs between conservation and poverty reduction goals. Where trade-offs occur, WWF will support affected local people to ensure that equitable and sustainable solutions are in place.

3. Engaging with resource-dependent communities in our programme planning, implementation and monitoring with the aim of identifying common interests, implementing collaboratively agreed activities, and producing outcomes that benefit both people and the environment. WWF will seek out and respond to the concerns, priorities and values of local people as they relate to natural resources (eg issues of access, control, management) and wellbeing.

4. Advancing understanding of linkages between sustainable resource management, environmental quality and equitable development to promote solutions to poverty-environment issues from local to global levels.

5. Promoting solutions to poverty-environment issues from local to global levels, including integrating these issues into its policy advocacy and programmatic efforts – joining together with broader civil society initiatives.

6. Actively seeking out and engaging with partners who can complement WWF's expertise to effectively address poverty-environment issues at all levels.

7. Integrating poverty and equity issues into our work on footprint and consumption.

Source: WWF 2009

A WWF internal briefing note subsequently refers to pro-poor conservation as "a shorthand reference" to the Poverty and Conservation Policy (Morris 2011) but a formal definition is provided in a description of WWF's PPA-funded work: *Conservation that promotes equitable solutions for poor people and the environment, enabling poor men and women to play a key part in crafting solutions for sustainable development* (WWF UK 2015).

4. Climate Smart Pro-Poor Conservation – an analytical framework for expanding learning

The literature reviewed in Sections 2 and 3 describes a variety of principles or characteristics of climate smart conservation (Table 3) and pro-poor conservation (Table 4). Some of the principles are similar for both climate smart and pro-poor conservation, but the majority are specific to one or the other approach.

Table 4: Climate Smart Conservation Principles

Principles/Characteristics	Examples
Protect adequate and appropriate space to support dynamic natural processes, places, and features that minimise or mitigate the effects of climate change.	Hansen *et al.* 2009; Stein *et al.* 2014
Reduce non-climate stresses, such as habitat degradation and destruction, overharvesting, pollution and invasive species.	Hansen *et al.* 2009
Adopt adaptive management and learning by doing – a process of continuous knowledge development	Hansen *et al.* 2009; Point Blue (2015b); Stein *et al.* 2014; WWF Website 2015; Guevara *et al.* 2014
Integrate adaptation into existing work and processes	Stein *et al.* 2014; WWF Website 2015
Work across scales (local to international)	WWF Website 2015
Contribute to reducing rate and extent of climate change (mitigation).	Stein *et al.* 2014; Hansen *et al.* 2009
Use conservation to specifically address the current and projected impacts of climate change	Stein *et al.* 2014
Understand the implications of climate change including how human responses might lead to changes in other conventional threats.	WWF Website 2015

Focus goals on future conditions, not past conditions.	Stein *et al.* 2014; Point Blue (2015b); WWF Website 2015
Consider how foreseeable climate impacts may compromise success	Stein *et al.* 2014
Safeguard people and nature - enhance the capacity of ecosystems to reduce climate vulnerabilities for people as well as wildlife, and to sustain the benefits natural ecosystems provide to both.	Stein *et al.* 2014
Adapt conservation goals and strategies to reflect changing climatic conditions	Stein *et al.* 2014
Adopt an ecosystem approach	Point Blue 2015b
Prioritise actions on best available science and, where possible, traditional/indigenous knowledge, across multiple plausible scenarios (including extremes, worst cases) and across multiple species.	Point Blue 2015b
Support people to adapt in ways that support the ecosystems on which they depend	WWF 2012 (CSC briefing 1)
Create an enabling environment for adaptive governance	WWF website 2015
Avoid maladaptation - actions taken to address climate change impacts on human communities or natural systems do not exacerbate other climate-related vulnerabilities or undermine conservation goals and broader ecosystem sustainability.	Stein *et al.* 2014
Climate smart conservation should be analysed and planned with the context of wider socio-economic development. Actions taken to address drivers of change should not compromise the resilience of human and natural systems.	Guevara *et al.* 2014
Gender: take into account the different effects that climate change has on women and men.	WWF NCAT 2012 (Towards c-s projects and programmes)

Table 5: Pro-poor Conservation Principles

Principles/Characteristics	Examples
Ensure that poor people are able to access and benefit from wild resources;	DFID 2002, IUCN 2002; IUCN Rec V/29; IUCN 2014, CBD Chennai Guidance

	Ensure negative impacts of conservation are managed (particularly human-wildlife conflict).	DFID 2002, IUCN Rec V/29
	Ensure that the poor capture a fair share of the benefits of conservation.	DFID 2002; Addis Ababa principles, IUCN Rec V 29 IUCN 2014
	Ensure conservation of wild resources and places on which poor people depend	DFID 2002; MA 2005, Kaimowitz and Sheil (2007); Davies (2014); Global Strategy for Plant Conservation; Chennai Guidance, IUCN V 29; IUCN 2014; WWF 2008
	Ensure that the costs of conservation are not borne by the poor.	DFID 2002; IUCN V 29; Fisher *et al.* 2005
	Set poverty reduction, livelihood security, social justice as core objectives of conservation	Roe *et al.* 2003; IUCN V 29; Roe and Elliott 2004; IUCN 2002; WWF 2009
	Ensure the voices and needs of poor people are central to conservation decision-making	Roe *et al.* 2003; Kaimowitz and Sheil (2007); WWF 2009
	Maximise positive impacts on the poor and minimise negative	Pagiola 2007; Fisher *et al.* 2005; Ashley *et al.* (2001); Fisher 2006; WWF 2009
	Do not harm the livelihoods of the poor	CBD Decision IX/9; IUCN Rec V 29; Fisher *et al.* 2005 CARE 2009; Bass and Steele 2006; WWF 2009
	Recognise and respect rights	Numerous CBD Decisions and IUCN recommendations/resolutions; CIHR; Care 2009; WWF 2009
	Compensate/mitigate for negative impacts	IUCN Rec V 29; Care 2009; Fisher *et al.* 2005
	Ensure benefits reach the poorer or more marginalised sectors of the community	Care 2009; Kaimowitz and Shiel 2007
	Equitable benefit sharing between local to international levels	Care 2009; WWF 2008; WWF 2009
	Ensure access to information and participation in decision making by vulnerable groups	IUCN 2014
	Understand the poverty context	Kaimowitz and Sheil 2007; Fisher *et al.* 2005; Kepe, Saruchera and Whande 2004; WWF 2009
	Be prepared for, and manage, trade-offs	Adams *et al.* 2004; Fisher *et al.* 2005; WWF 2009

Address equity issues	Fisher *et al.* 2005; Davies *et al.* 2013; CARE 2009; WWF 2009
Work at multiple scales and multiple institutional levels	Fisher *et al.* 2005; WWF 2009
Develop partnerships – particularly between conservation and development actors	Fisher *et al.* 2005; Kaimowitz and Shiel 2007; Robinson 2011; WWF 2009
Use landscape level approaches	Fisher *et al.* 2005

For an approach to be termed as CSPPC rather than just CSC or PPC, it might reasonably be expected to reflect a mix of CSC and PPC principles and characteristics. Table 5 below presents a set of principles for CSPPC based on a synthesis of the principles extracted from the literature and then further categorised to reflect the extent to which they seek to actively use conservation to achieve either climate change or poverty reduction goals.

The principles are not intended to be equivalent across the different columns. While we have tried to align similar overarching approaches – such as “do no harm” or “do good” the positioning in the table reflects nothing more than this. The principles are also not intended to be ordinal – ie there is no scale or value judgement implied in the order in which they are presented within each column. And finally, they are not intended to be exclusive – different approaches to CSPPC will reflect different combinations of principles. The key point, however is that CSPPC is the intersection of pro-poor and climate smart conservation (Figure 5). Some CSPPC programmes may have more emphasis on pro-poor than climate smart (Figure 6), while others may be more climate smart and less pro-poor (Figure 7).

Figure 4: A Framework for characterising CSPPC programmes

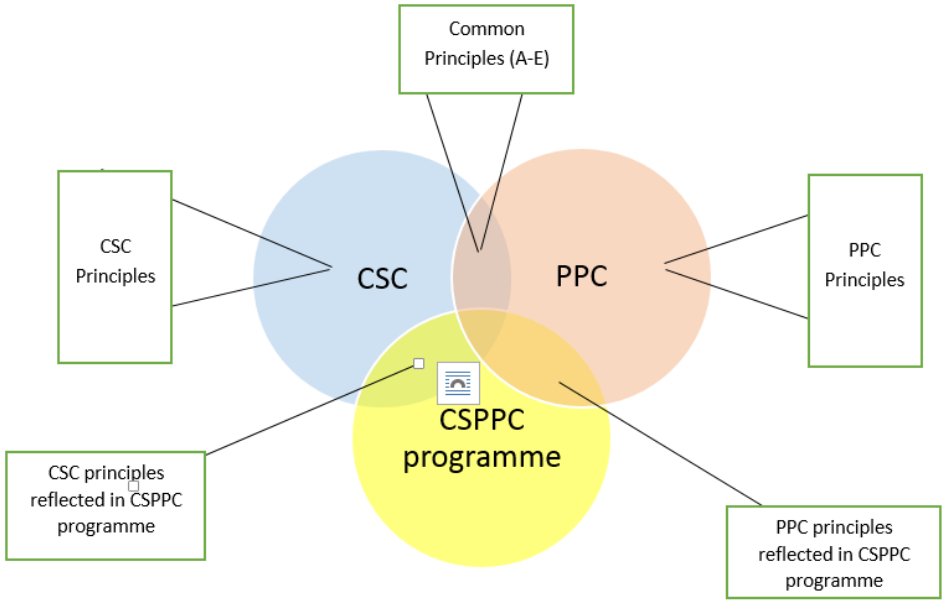


Figure 5: Applying the CSPPC framework to different programmes

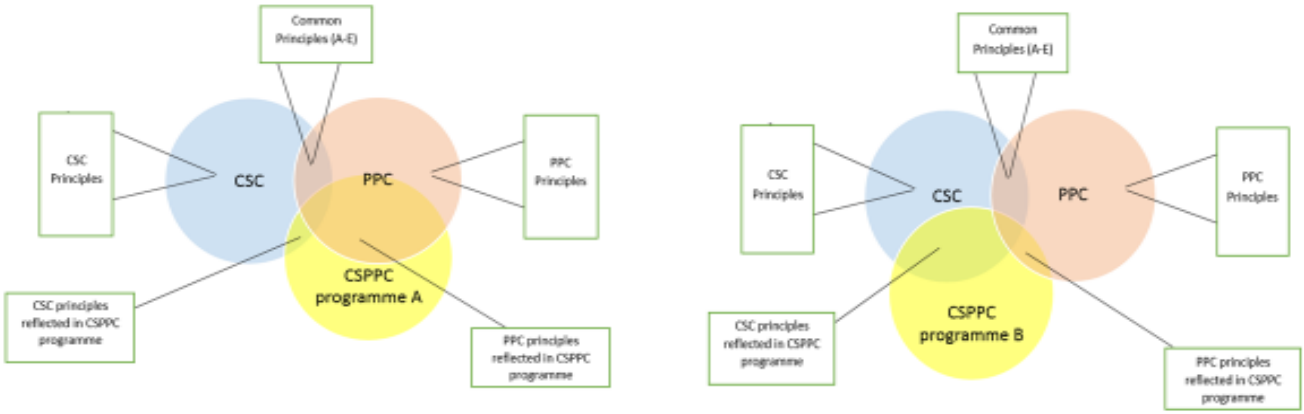


Table 6: Principles for Climate Smart and Pro-Poor Conservation

Climate-Smart (CS) Principles	Pro-Poor (PP) Principles
1. **"Do good"**: Deliberately contribute to tackling climate change through conservation: **a.** Contribute to building the resilience/adaptive capacity of local communities (CBA) **b.** Enhance the capacity of ecosystems to reduce climate vulnerabilities and **adaptive capacities *for people***	1. **"Do good"**: Deliberately contribute to improving human well-being through conservation: a. Enhance **wellbeing of local people** at conservation sites b. Ensure delivery of ecosystem services critical for **wellbeing at the landscape level** c. Contribute to national sustainable

(EBA) **c.** **Build ecosystem and species resilience** to climate change (conserve adequate and appropriate space to enhance adaptation capacity) **d.** Contribute to **climate change mitigation** through emission reductions and removals	development
2. Ensure that project impacts are sustainable in a changing climate (climate proofing)	2. Deliberately **target benefits at the poorest** or more vulnerable groups
3. "**Do no harm"**: Avoid or mitigate activities that may undermine resilience/adaptive capacity of people and ecosystems	3. "**Do no harm"**: Avoid or mitigate negative social impacts that create or exacerbate poverty
4. Recognise **differences in distribution of climate change impacts** (between localities, between rich and poor, between men and women etc)	4. Recognise differences in distribution of social impacts of conservation (between men and women, rich and poor etc) ie **Social differentiation**
5. **Identify and manage trade-offs** (between adaptation and mitigation, with adaptation approaches, between CS and other goals)	5. **Identify and manage trade-offs** (between different groups of poor people, between different PP approaches, between PP and other goals)
6. Adopt **adaptive management and learning- by-doing** to reflect changing climate conditions and uncertainties	6. Ensure **equity in distribution of costs and benefits** at different levels and between different groups
7. **Reduce other environmental stresses** (so as not to exacerbate climate-induced impacts)	7. **Recognise and protect the rights** of marginalised groups, Indigenous Peoples and local communities
8. **Focus conservation goals on future conditions** not past	8. Focus conservation efforts on species and/or **sites that are important to poor people**
9. **Prioritise** actions based on **use of best available climate science and knowledge** (including Traditional Ecological Knowledge)	9. Ensure **participation** in decision making and access to information by poor, women, Indigenous peoples and other marginalised groups
Common Principles	
A. Understand the local/national context (past, present and future)	
B. Work across scales (local to global)	
C. Collaborate and communicate across sectors and disciplines	
D. Use ecosystem/landscape level approaches	

E. Tackle the policies, institutions and processes that present barriers to CS or PP achievements (create an enabling environment)

5. Conclusions

This paper sought to explore what "climate smart, pro-poor conservation" looks like inside and outside of WWF. A search of the literature reveals that it is an approach unique to WWF and one in which it can claim to be a pioneer. Nevertheless, WWF has not, to date, formalised its approach to CSPPC nor sought to define it, beyond identifying a number of outcomes that it anticipates achieving through this approach.

There is a considerable body of literature on both "Climate-Smart Conservation" and "Pro-Poor Conservation" and these highlight a number of key characteristics or principles that can be associated with each approach – some of which are specific to each approach and some which are common across both.

We propose an analytical framework for further exploring WWF's approach to CSPPC and expanding learning on this innovative conservation strategy. The framework is based on a synthesised set of principles reflecting different dimensions of CSPPC and recognises that there is no "on size fits all" model. CSPPC can be characterised by a spectrum of different approaches which reflect a greater of lesser emphasis on climate smart principles and pro-poor principles. The defining feature of CSPPC is, that it adopts an integrated approach.

The CSPPC framework proposed here, describes a theoretical construct of CSPPC. The next stage in this process is to apply the framework to different practical situations in a range of different contexts (policy and practice; regional to national to local scales; sites to landscapes) and to test and validate the relevance of the different principles in these different contexts.

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