

# **Cautiously utopian goals**

Philosophical analyses of climate change objectives and sustainability targets

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# Abstract

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In this thesis, the framework within which long-term goals are set and subsequently achieved or approached is analyzed. Sustainable development and climate change are areas in which goals have to be set despite uncertainties. The analysis is divided into the normative motivations for setting such goals, what forms of goals could be set given the empirical and normative uncertainties, and how to manage doubts regarding achievability or values after a goal has been set.

Paper I discusses a set of questions that moral theories intended to guide goal-setting should respond to. It is often claimed that existent normative theories provide only modest guidance regarding climate change, and consequently have to be revised or supplemented. Two such suggested revisions or supplements are analyzed in order to determine whether they provide such guidance.

Paper II applies the deep ecological framework to survey the extent to which it can be utilized to discuss issues concerning the management of climate change. It is suggested that the deep ecological framework can provide guidance by establishing a normative framework and an analysis of how the overarching values and principles can be specified to be relevant for actions.

Paper III is focused on normative political theory, and explicates the two dimensions of empirical and normative uncertainty. By applying recent discussions in normative political theory on ideal/non-ideal theory, political realism, and the relation between normative demands and empirical constraints, strategies for managing the proposed goals are suggested.

Paper IV suggests a form of goal that incorporates uncertainties. Cautious utopias allow greater uncertainty than realistic goals (goals that are *known* to be achievable or approachable, and desirable), but not to the same extent as utopian goals (goals wherein it is highly uncertain whether the goal can actually be achieved). Such goals have a performance-enhancing function. A definition and quality criteria for such goals are proposed.

Paper V considers whether a goal that is becoming all the more unlikely to be achievable should be reconsidered. The paper focuses on the two degrees Celsius target, and asks whether it could still be a sensible goal to aspire to. By applying the principle that 'ought' implies 'can', the role of such obligations is investigated.

Paper VI surveys how to treat circumstances in which an already set goal should be reconsidered and possibly revised, and what would evoke doubt in the belief upon which those goals have been set. Two situations are analyzed: (i) a problematic or surprising event occurs, upsetting confidence in one's relevant beliefs, or (ii) respectable but dissenting views are voiced concerning one's means and/or values. It is suggested that the validity of doubt has to be considered, in addition to the level in a goal-means hierarchy towards which doubt is raised.

**KEYWORDS:** goals; climate change; utopia; environmental ethics; climate ethics; sustainable development

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*A greater imagination of the possible is vital to achieve a just and sustainable world.*

(‘Declaration on Climate Justice’, issued 23 September 2013 at the United Nations by the High Level Advisory Committee to the Climate Justice Dialogue, an initiative of the Mary Robinson Foundation – Climate Justice and the World Resources Institute)

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<b>1. Introduction</b> .....	<b>1</b>
<b>2. Climate change and sustainable development</b> .....	<b>2</b>
a) <b>Some general assertions regarding climate change and sustainability</b> .....	<b>2</b>
b) <b>Climate change objectives and sustainability goals</b> .....	<b>4</b>
<b>3. A philosophy of goals?</b> .....	<b>5</b>
a) <b>Epistemic uncertainty</b> .....	<b>7</b>
b) <b>Normative challenges</b> .....	<b>10</b>
c) <b>Practical constraints and normative demands</b> .....	<b>17</b>
<b>4. The papers</b> .....	<b>20</b>
I. <b>New Beginnings?</b> .....	<b>20</b>
II. <b>Managing Climate Change</b> .....	<b>21</b>
III. <b>Adaptive Ideals and Aspirational Goals</b> .....	<b>22</b>
IV. <b>Cautious Utopias</b> .....	<b>25</b>
V. <b>Risk-Reducing Goals</b> .....	<b>26</b>
VI. <b>Change of Plans?</b> .....	<b>26</b>
<b>5. Svensk sammanfattning</b> .....	<b>27</b>
a) <b>Klimatförändringar</b> .....	<b>28</b>
b) <b>Filosofi och mål</b> .....	<b>29</b>
c) <b>Artiklar</b> .....	<b>35</b>
<b>6. References</b> .....	<b>38</b>

# 1. Introduction

This is a dissertation in the field of philosophy, oriented towards various aspects of the management of the negative impacts of climate change and achieving sustainable development. The thesis engages with the normative issues of setting long-term mitigation, adaptation, and sustainability goals, and of setting such goals despite uncertainty. The thesis shows that it might sometimes be necessary to set goals that incorporate both empirical and normative uncertainty, and that different strategies can be applied to set successful goals that cope with such uncertainties. This can have practical repercussions, since it may sometimes be warranted and necessary to set goals that are initially utopian or uncertain in terms of achievability in order to achieve or approach desirable states of affairs in the long-term. In contrast, to be too constrained by current abilities and knowledge about existing means may be a significant obstacle to progress.

The issues are relevant for managing climate change and achieving sustainable development. Despite great challenges of both empirical and normative character, the long-term transitions required for avoiding a two degree Celsius increase in global mean temperatures by 2100 (relative to pre-industrial times), and of achieving long-term sustainable development, requires setting and aspiring towards goals. The *challenges* of setting long-term goals, along with the *need* for setting such goals for avoiding possible catastrophes, is ultimately what motivates much of the discussion in this thesis. The papers serve to form a consistent whole: (moral) reasons for setting (climate and sustainability) goals (Papers I and II), what forms of goals could be set given the empirical and normative challenges (Papers III and IV), and what to do if it is discovered that confidence regarding empirical and normative beliefs, initially justifying setting goals, is erroneous or could reasonably be doubted (Papers V and VI). By explicating these different aspects of setting and aspiring towards goals, and by evoking pressing issues regarding the relation between empirical feasibility and moral obligations, the thesis intends to contribute to both emerging discussions on the philosophy of goals, as well as the practical issues concerning which forms of goals to set so as to manage climate change, promote climate change adaptation, and sustainable development, and which considerations should be taken into account when setting and aspiring towards such goals.

Goals are common in social policies, and climate change and sustainable development are areas in which goals are often set. A goal is a desired future state of affairs that an agent intends to achieve or approach through a set of actions justifiably believed to suffice (cf. Edvardsson and Hansson 2005). Setting a goal is motivated by the state of affairs being either (a) in accordance with the agent's (current and, assumedly, future) preferences, and/or (b) morally obligatory. Yet, goals as a category of action and as an object of analysis have generated only quite modest philosophical interest. This thesis attempts to explicate and analyze several issues concerning setting goals in which philosophical analysis could serve important functions. Ultimately, the discussion on goals concerns the implementation of moral demands and values in actual practice and planning.

This introduction consists of an overview of the topics discussed in the papers. It will begin by sketching some of the challenges that climate change presents. This will be followed by a discussion on the philosophical aspects of goal setting and a short presentation of the individual papers.

## **2. Climate change and sustainable development**

The thesis' primary area of implementation is climatic changes and sustainable development. Consequently, this section will provide a brief survey of those topics.

### **a) Some general assertions regarding climate change and sustainability**

Emissions of greenhouse gases (GHG) are the main drivers of anthropogenic climate change. Current and past emissions will lead to climatic changes, such as increases in global mean surface temperatures, which will in turn lead to heightened sea levels, increased precipitation, as well as droughts, and extreme weather events occurring with greater frequency (Dessai and van der Sluijs 2007). Such changes will have impacts on our societies, environment, and economies. Indeed, the warming of the climate system is 'unequivocal' (IPCC 2013: 4). Furthermore, human influence has been the dominant cause of the observed warming since the mid-20<sup>th</sup> century (IPCC 2013: 17).

Concentrations of approximately 450 particles per million (ppm) of CO<sub>2</sub> and CO<sub>2</sub>-equivalents are *likely* to maintain warming below two degrees Celsius relative to pre-industrial times (IPCC 2014a: 22). Higher levels of CO<sub>2</sub> raise both the likelihood and the magnitude of harmful consequences. There are some uncertainties regarding where,



exactly, to set such thresholds, depending on estimations regarding climate sensitivity.<sup>1</sup> For instance, some propose setting the threshold at 350 ppm of concentrations of CO<sub>2</sub> to achieve the two degrees Celsius target (Rockström et al. 2009).

The Intergovernmental Panel on Climate Change (IPCC) constructs scenarios to estimate what states of affairs different emission trajectories will lead to. In their Fifth Assessment Report, emission scenarios were replaced by ‘Representative Concentration Pathways’ (RCP) (IPCC 2013). The most optimistic pathway is RCP2.6, in which it is likely that the global surface temperature by 2100 will exceed 1.5 degrees Celsius relative to the time period 1890-1900, but it not likely to exceed two degrees Celsius (IPCC 2013: 20). This scenario, which is the only one that is not likely to exceed a two degree Celsius increase by 2100 will require mitigation efforts. RCP2.6 is “characterized by 40 to 70 percent global anthropogenic GHG emissions reductions by 2050 compared to 2010, and emissions levels near zero or below in 2100” (IPCC 2014a: 20). Scenarios in which no additional efforts are made to reduce GHG emissions than those already undertaken range from 3.7 to 4.8 degree Celsius increases relative to the average between 1850-1900 (IPCC 2014a: 20).

However, not only have emissions increased, they have increased at a higher pace annually than ever before (IPCC 2014b: 6-7). In short, we are not heading in the right direction, which will increase the magnitude of the necessary mitigation efforts required to achieve the two degree Celsius goal. If we do not achieve that goal, severe consequences will follow, negatively impacting both natural and human systems (cf. IPCC 2014c: 13, 20; Paper I).

Managing the impacts of anthropogenic climate change is not only an issue of estimating future changes and possible actions needed to manage them, but also involves normative dimensions:

*Natural, technical, and social sciences can provide essential information and evidence needed for decisions on what constitutes ‘dangerous anthropogenic interference with the climate system.’ At the same time, such decisions are value judgments (IPCC 2001: 2; cf. IPCC 2014b: 211).*

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<sup>1</sup> ‘Climate sensitivity’ is a measure of what a doubling of the concentration levels of atmospheric CO<sub>2</sub> relative to pre-industrial times (approximately 280 ppm, some estimate that we will reach 560 ppm by around 2036 [cf. Mann 2014], although there are uncertainties regarding that date) would entail with regards to increases in global mean temperatures. It is *likely* that such a doubling would entail temperature increases between 1.5-4.5 degrees Celsius (IPCC 2013: 16). It is *unlikely* to be less than 1 degree Celsius, and *very unlikely* to be greater than 6 degrees Celsius (IPCC 2013: 16).

Normative issues are now more commonly discussed alongside the empirical issues than has previously been the case. Most prominently, the field of ‘climate justice’ and ‘climate ethics’ has grown in recent years, focusing on questions of future generations (such as their needs or interests and, consequently, the claims those interests make on us), the distribution of burdens as a matter of justice, and principles for identifying fair usage of commons (cf. Page 2006; Caney 2005; Gardiner 2011; Jamieson 2014; Shue 2014; Moellendorf 2014).

## **b) Climate change objectives and sustainability goals**

The situation described in the previous section is well-known. Indeed, anthropogenic climate change has been recognized since at least 1990, when the IPCC released its first assessment report. Similarly, the pleas for sustainable development have increased ever since the publication of *Our Common Future* (WCED 1987). Climate change and sustainable development are inherently future-oriented problems. The greatest climate impacts will occur in the future. However, the extent of those impacts, as well as the likelihood of sustainable development, is dependent on actions that are taken now and in the coming years. Moreover, they are future-oriented problems in the sense that they are not ‘one-off’ decisions for any single agent to make at a specific time. Rather, they will require setting out on long-term trajectories towards, for instance, alternative energy sources, and changes in behaviour and lifestyle that can have significant effects (cf. IPCC 2014a: 26). Without additional mitigation policies to those already in place today, warming by 2100 will be associated with impacts such as “substantial species extinction, global and regional food insecurity, consequential constraints on common human activities, and limited potential for adaptation in some cases” (IPCC 2014a: 19). Such impacts will affect the prospects of sustainable development.

Between 1880 and 2012, the observed global warming was about 0.85 degrees Celsius (IPCC 2014a: 2).<sup>2</sup> Despite being a seemingly modest increase, it has already led to observable impacts such as, but not limited to, glacier shrinkage, thawing in high-altitude regions, increased heat-related mortality in some regions, changing interactions between species, and negative effects on crop yields (IPCC 2014a: 6-8). Given that emissions are not levelling out but are rather increasing at a higher pace, we

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<sup>2</sup> Some estimate that about two-thirds of that increase occurred since the 1970s <<http://earthobservatory.nasa.gov/Features/WorldOfChange/decadaltemp.php>>, although the increase has moderately levelled out over the last decade (cf. Mann 2014).

can expect that there will be increasing adaptation needs in the future. Adaptation is defined as “the process of adjustment to actual or expected climate and its effects” (IPCC 2014c: 5). However, anticipatory adaptation, while often preferable, also has to consider several challenges, such as uncertainties regarding which local impacts will occur, how to adapt, and what state of affairs adaptation will ideally result in. Moreover, there are limits to adaptation, occurring when “adaptation efforts are unable to provide an acceptable level of security from risks to the existing objectives and values and prevent the loss of key attributes, components, or services of ecosystems” (IPCC 2014c: 919). In many places, the possibilities for adaptation will become very modest, if being a real alternative at all, if mitigation is unsuccessful.

There is no shortage of goals related to climate change (both mitigation and, to a lesser extent, anticipatory adaptation) and sustainable development. On a global level, there is great support for the two degrees Celsius objective, which states that we should avoid a two degrees Celsius increase in global mean surface temperatures by 2100, when compared to pre-industrial times (cf. Moellendorf 2014: 23). Regarding sustainable development, there will be, following 2015, sustainable development goals (SDGs) to replace the millennium developmental goals (MDGs) set in 2000. Several of the proposed 17 SDGs are dependent on minimizing harmful climatic changes. An analysis of the proposed SDGs also indicates that there are several potential weaknesses, such as 54 percent of the 169 sub-goals to the 17 goals being too vague to offer practical guidance, risks for goal conflict, and furthermore that the 17 goals lack an overarching goal towards which they should ultimately aim (ICSU/ISSC 2015).

Goals should be both set and planned for if the global community intends to avoid increases of two degrees Celsius and the consequences thereof. Several goals are set, but not enough is actually being done to achieve them given increasing emissions and resource depletion. There are several challenges to setting and achieving such goals, both empirical and normative. Such issues will be discussed in the remainder of this introduction, and account for the lion’s share of the papers.

### **3. A philosophy of goals?**

‘By 2100 the global mean surface temperature should not increase beyond two degrees Celsius relative pre-industrial times’, ‘end poverty in all its forms everywhere’, ‘maintain biodiversity in this ecosystem’, ‘by 2050 EU members should have reduced domestic GHG emissions by 80 percent relative to 1990-levels’ – ‘tonight I will have a

delightful supper'. Goals are all around us, and they are common in political, social, and individual decision making. There are several issues pertaining to setting and achieving goals in which philosophy can make expository contributions. Given the abundance of goals, the modest philosophical interest is quite surprising.<sup>3</sup>

Even if concepts such as 'goals', 'objectives', or 'targets' are often used in both individual and social decision making, they are still rather vague concepts. One ambition of this thesis is to explicate the concept. As a rough initial definition, a goal is a desired future state of affairs an agent intends to achieve or approach through a set of actions justifiably believed to suffice.<sup>4</sup> Setting a goal is motivated when the state of affairs is either (a) in accordance with the agent's (current and, assumedly, future) preferences, and/or (b) morally obligatory. Goals consist of an empirical part, designating achievability or approachability, and a normative part, expressing values or preferences, or designating moral obligations.<sup>5</sup> In several ways, goals concern how to implement moral demands in concrete practice and decision making. This evokes a great number of questions regarding the relation between moral demands and practice, the influence that feasibility may have when defining reasonable moral demands, and the potentially aspirational purposes that demanding moral obligations, uncertain to be achieved, may have when developing means.

Moreover, goals imply a temporal distance between the setting of a goal and the time point of intended goal achievement. The state of affairs that a goal represents is not the current state of affairs or, conversely, intends to maintain a current state of affairs against anticipated negative changes. Furthermore, the state of affairs will not materialize autonomously, but is estimated to require interventions (cf. Castelfranchi

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<sup>3</sup> There are exceptions to this modest interest (cf. Edvardsson Björnberg 2008; Rosencrantz 2009; Castelfranchi and Paglieri 2007; Castelfranchi 2014; McCann 1986; Richardson 1994). While the following discussion is limited to goals, it should be acknowledged that goals bear some resemblance to adjacent concepts such as *intentions*, *intentional action*, *policies* or *plans*, all of which have generated greater philosophical interest.

<sup>4</sup> As will be explicated throughout the remainder of this introduction and in the papers, there are several challenges to this definition. Most significantly, there is often uncertainty regarding achievability, as well as regarding the strength of moral demands. Furthermore, it is not always clear how to assess the veracity of empirical and/or normative claims – this in turn is a challenge when determining the degree of belief that is appropriate regarding such claims, and what to regard as relevant evidence – which are further challenges that will be discussed below.

<sup>5</sup> The distinction between empirical and normative dimensions might be too rigid. For instance, normative issues will assumedly be related to the actions required to achieve a specific goal. That is, a goal could be empirically achievable, but still require some action that is not morally permissible. Thus, normative issues are a part of means-related assertions. Conversely, empirical constraints will arguably play a role in how reasonable a moral demand is. The distinction here primarily serves an analytical purpose.

and Paglieri 2007; cf. Castelfranchi 2014). A goal is intended to be achieved or approached—a proviso that discards utopian visions or mere hopes for the future. The proviso excludes states of affairs that are merely desired but are unachievable or unapproachable. Goals, objectives, and plans have central functions for resource-bound agents as they reduce the need for continuous deliberation on appropriate actions (cf. Bratman et al. 1998). Setting goals enables inter-temporal and inter-subjective coordination, that is, to coordinate action across time and between agents. Despite these strengths of goals, there are several aspects of goals that could benefit from philosophical analyses and explication. The following is an attempt at such.

### **a) Epistemic uncertainty**

The state of affairs that a goal portrays should not be unachievable or unapproachable, and it should ideally be known to the agent or relevant agents whether a specific state of affairs is empirically unachievable or unapproachable. The empirical dimension concerns the appropriate degree of belief in empirical or descriptive assertions regarding the actions by which a state of affairs can be achieved or approached (such as “X is achievable or approachable if Actions 1, 2 and 3 are performed”). There might be disagreements regarding a suggested set of actions in such assertions or regarding the appropriate degree of belief in the sufficiency of the actions portrayed. A rejection of an assertion regarding the empirical dimension of a goal entails the assertion being considered false. Such statements concern what states of affairs an agent estimates *can* be achieved or approached according to (if possible) a specific likelihood, and what different options an agent has from an empirical perspective.

What in several of the papers is termed ‘realistic goals’, refers to the epistemic assessment of whether a specific represented state of affairs is achievable or approachable (or, in other words, what degree of confidence in the veracity of empirical assertions is appropriate). A ‘realistic goal’ is one in which there is a substantial confidence that the goal is achievable or approachable by known means. In contrast, a utopian goal is one in which there is a very low degree of belief in its achievability. Due to this, a utopian goal would fall outside the definition proposed above. However, ‘cautiously utopian’ goals refer to instances where it might be possible to develop means adequate for achieving the goal, but which are more uncertain to be achievable or approachable than realistic goals. This distinction provides the framework for several of the papers, most significantly Paper IV.

Setting an individual goal is different from setting a goal in social decision making. A model of individual judgment regarding achievability or desirability is not transferrable to how a group determines whether a state of affairs is achievable, or desirable, or not. While neither of the papers account for the mechanisms through which collectives consider achievability or desirability, the topic is part of Papers III, IV, and VI, all of which investigate the role of participation and the relation between actors in civil society and expertise.

Generating a view held in common by a community of actors can be performed in different ways. Indeed, epistemic authorities and expertise play a vital role when informing communities or policy makers of what is required to achieve a specific state of affairs, and communities are more likely to adopt beliefs espoused by such actors whose authority they recognize (cf. Rydgren 2009: 83). For instance, as suggested in Paper IV, to consider expertise and experience can be beneficial regarding achievability, whereas actors in civil society may prove instructive when expressing whether a specific state of affairs is desirable or not (cf. Paper IV; cf. Paper III on levels of agreement regarding desirability).

Paper VI investigates the ‘community of inquirers’ by discussing the environmental pragmatism of, specifically, Bryan G. Norton. One central problem concerns where one would set the boundaries to such a group. Indeed, as investigated in Paper VI, where to set such boundaries regarding dissenting views and whether they should be incorporated is no easy matter; if *all* dissenting views can evoke doubt, it would most likely lead to action paralysis while, conversely, to never consider *any* dissenting views as serious possibilities is hardly a sincere position. The position held by Norton is one whereby the individual members of collectives agree upon a goal to approach and the variables with which to measure goal achievement. This is the content of what he labels the ‘reflective phase’ of a process heuristic. Subsequently, the members of that community set out to achieve that goal, in what Norton calls the ‘action phase’. There may be instances, investigated in Paper VI, where the community may be forced back into the reflective phase. However, the paper does not explicate all the social mechanisms that could give rise to a community being forced back into the reflective phase, although dissenting views, credible enough to evoke doubt, is one such instance. There may be other ways in which achievability and desirability are considered in communities and social settings that are less formal than the ‘process heuristic’ proposed by Norton.

Ideally, empirical assertions regarding the achievability or unachievability of a state of affairs are assessed as true or false, and there is preferably consent among the members of a community regarding such assessments that reflects actual achievability and desirability. It might be known through previous experiences or expertise how to achieve the intended state of affairs, or rather what the appropriate degree of belief in the proposed actions' adequacy for achieving the intended state of affairs should be. As suggested in Paper IV, there are different ways of understanding such a proposition. For instance, how likely is it that the set of actions that are presumably required will suffice? And, if some specific means are thought to be required but do not currently exist, how does one assess whether their potential for development? However, it is arguably a shortcoming to limit goals to states of affairs that are *known*, with certainty, to be achievable given current means as there are very few, if any, states of affairs that we can have such epistemic confidence about. Similarly, being too constrained by knowledge regarding current means may exclude many progressive, but uncertain, alternatives.

Ideally, one can form a degree of belief expressed in probabilistic terms, such that a proposition regarding a specific action necessary for achieving a state of affairs (such as: "In 10 years from now we will have access to emission reduction technologies that effectively take care of CO<sub>2</sub> emissions from this specific branch of industry") being true with a degree of belief of 0.5, 0.7, or whatever confidence level is appropriate given the available evidence. One could also state the confidence in non-quantitative terms, such as 'it is more likely than not', 'it is equally likely as not', or 'it seems reasonable to assume that the statement is true' given available evidence.

However, there might be, and often are, uncertainties pertaining to the adequacy of the proposed actions to aspire towards an intended state of affairs and to the development of appropriate means currently not existent or suitable for implementation. Moreover, there are often disagreements regarding the adequate level of confidence in the veracity of such assertions. Such uncertainty and disagreements likely increase as the set of actions becomes more complex, which is often the case when planning in lengthy time-frames.<sup>6</sup> However, even if it is uncertain how a state of affairs could be reached, such knowledge could arguably be gained.<sup>7</sup>

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<sup>6</sup> Several of the papers discuss 'long-term goals', or goals with long time-frames, and similar. The concept of 'long-term' is left undefined, but refers to a planning situation in which there is substantial temporal distance between the time point of setting a goal and the intended goal

Defining what feasible states of affairs are available for an agent raises several challenges. As briefly discussed in Paper V, ‘feasibility’ can be understood in different ways, such as something an agent is capable of ‘here and now’ or as something that it is estimated an agent or several agents can develop the capacity to do at a later date (cf. Besch 2011). There is most likely substantial uncertainty regarding feasibility understood in the latter sense, which is arguably the most important sense when it comes to climate change and sustainable development.

Still, it could often be intuitively correct to include such capacities in the repertoires of agents or communities. After all, technology often progresses, as we learn how to make things in a more efficient manner or to achieve states of affairs that were previously out of our reach. Conversely, we can lose abilities, making previously achievable goals more distant. Furthermore, the surrounding world might change in ways that substantially alter the preconditions necessary for achieving a goal (cf. Paper IV). Estimating the possibilities for progress, and assessing the impacts of new technologies, or how surrounding preconditions might change, is therefore often difficult (cf. Paper IV for further discussion and examples). Regardless, estimates of the achievability of different states of affairs say little about which goals *should* be set and pursued. Rather, moral reasons are required to offer such guidance, to which we now turn.

## **b) Normative challenges**

A goal should aim towards a state of affairs that is believed to be consistent with the values and preferences at the point in time of intended goal achievement. Furthermore, there are arguably moral demands in realizing specific states of affairs and performing specific actions.<sup>8</sup> Such aspects are the predominant focus of Papers I-III. While the

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achievement. In such instances, there are several uncertainties and possible changes of surrounding preconditions (cf. Paper IV). What exactly constitutes a ‘long time-frame’ will most likely differ between different planning systems.

<sup>7</sup> Scientific knowledge progresses, and an agent can learn how to bring about states of affairs that it is currently ignorant of how to achieve. Yet, estimations regarding future knowledge are difficult to make. Perhaps this is most aptly illustrated by Auguste Comte’s claim that the chemical composition of the stars would forever be unknown for us, something that was discovered to be wrong just a few years after the statement was made in 1835.

<sup>8</sup> In the subsequent discussion, ‘normative’ and ‘moral’ will be used somewhat interchangeably. Both terms designate the state of affairs an agent intends to achieve due (a) to the value of or preference for that state of affairs, and/or (b) the state of affairs being obligatory to achieve. The latter is intended to point out a stronger claim than the former.



account described above ultimately gives an agent a set of states of affairs and the (if possible) confidence with which they are believed possible to aspire towards, the account does not instruct the agent on what states of affairs *should* be approached or how to choose between different options, which is the work of the normative aspects. This aspect concerns the soundness or reasonableness of moral or value-related assertions (such as “due to moral reasons A, B, and C, you should achieve or approach X”). What is at stake is what confidence is justified regarding such assertions, the moral reasons underpinning them, and determining whether such assertions and reasons are consistent, coherent, intelligible, or sound. To reject a normative assertion indicates that one does not consider the proposition to hold.<sup>9</sup> As suggested above, there are also moral issues regarding the choice of means implemented to reach a specific state of affairs. That is, a state of affairs might be desired and empirically possible to achieve, but require implementing certain means, the moral status of which are questionable. The following, however, primarily focuses on the moral requirements of the end-states that the goals portray.

Assessing the veracity of normative assertions differs from empirical assertions. Empirical assertions can, ideally, be tested regarding their truth or falsity. Similar criteria might not apply to normative statements, at least not in the same manner. How to establish the criteria for assessing whether a normative statement is reasonable, if it should be rejected, or what confidence level is appropriate regarding the soundness of a normative claim, is not always an easy matter to settle. Analyzing whether the underlying arguments hold and are coherent, and in a structured fashion analyzing the distinctions made, are possible candidates for criteria. As we will discuss below, different environmental ethical viewpoints have different takes on this.

In the following, the normative issues will be divided into *environmental ethical* and *climate justice*. The distinction follows the disciplinary separation between environmental ethics and political theory applied to climate change. Admittedly, the

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<sup>9</sup> There might be conflicts between several obligations or values. That is, (at least) two separate states of affairs are equally morally reasonable (sound, both hold, etc.) to be achieved, but in which only one, and not both, can be achieved (cf. Bernard Williams’s [1973] discussion on residual obligations and remainders from such moral conflicts). It might not always be possible to avoid conflicts – but nor would it always be *desirable* to avoid such conflicts (cf. Hansson 1998: 414). Such conflicts are not investigated further here, but different ways of making priorities are briefly discussed in Papers I and II, primarily conflicts between duties towards other humans and duties towards biotic systems. Moreover, disagreements regarding normative demands are discussed in Paper III (for a treatment of an adjacent, but different, phenomenon – goal conflicts in climate change adaptation planning – see Baard et al [2012]).

two are often intermingled and make up the normative aspect of goals, but are somewhat separated in the papers.

## Environmental ethical aspects

Values identified by moral theories, or those supported by moral reasoning, provide reasons for setting goals. For instance, that it is a normatively desirable state of affairs that other individuals are not exposed to harm is usually taken for granted, but can also be motivated by ethical theories, justifying goals of limiting risks to acceptable degrees.<sup>10</sup> The normative aspects of risk management are discussed in Paper V (cf. Hansson 2007; Hermansson 2005; Altham 1983; Hayenhjelm and Wolff 2011). Moreover, it is usually possible to ascribe responsibility to specific agents to ensure that safety is guaranteed (cf. Nihlén Fahlquist 2006).

Several scholars claim that many moral theories are ill-suited to provide guidance when it comes to issues such as climate change, and that those theories or frameworks consequently have to be supplemented or replaced. Two such suggestions are investigated in Paper I, namely those made by Dale Jamieson (2014) and J. Baird Callicott (2014), who are both entwined in their criticism of current moral theory and the need for supplements or revisions, but differ greatly with regards to their own suggestions. Jamieson is perhaps the one who has most eloquently described these challenges. Already in 1992, he suggested that our normative frameworks, and the principles by which we identify harm and moral responsibility, ‘collapse’ when applied to issues of such grand scales as climate change. They work best in limited ‘Smith and Jones’ cases (Jamieson 1992: 149; 2014: 148ff): when an identified agent, Smith, intentionally does something harmful to another agent, Jones, such as breaking into his house and stealing a television (Jamieson 1992: 148). This limited reach provides us with only modest guidance in the case of climate change. We know that GHG emissions are the primary driver of anthropogenic climate change. However, each individual contribution is so negligible that ascribing responsibility for harm is difficult. According to Jamieson, the current task is to moderate the extent and pace of the impacts of

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<sup>10</sup> As suggested by Henry Shue, “[i]t is not as wrong to impose a risk of a harm as it is to inflict the same harm, but it is still wrong” (Shue 2014: 215). However, to accept *no* risk exposure would arguably paralyze much of social life, and moreover omit the possible benefits that might result from decisions that involve risk exposure. Instead, it is usually agreed that the risk-exposure must work to the benefit of those exposed to the risk (cf. Hansson 2007; cf. Hermansson 2005).

climatic change by using a portfolio of responses (Jamieson 2014: 228ff). Moreover, the development of ‘green virtues’, such as humility, temperance, mindfulness, cooperativeness, and respect for nature, can have beneficial consequences and so are central to Jamieson’s ‘ethics for the Anthropocene’ (2014: 185ff).

There are also disagreements regarding what weight to ascribe the environment, and for what reasons, which will in turn affect how to define harms and what goals to set. A purely anthropocentric perspective is the traditional perspective in ethics, requiring that one pays moral consideration primarily to human sentiments, preferences, interests, or rights. Several scholars, especially in environmental ethics, have challenged such outlooks. Biocentric perspectives have, for instance, broadened the sphere of moral significance to include *all* sentient beings in utilitarian analyses, or from deontic perspectives ascribe rights or interests that make claims on us. However, these perspectives are still atomistic in the sense that it is the pain or pleasure, or interests, of *individuals* that are considered. Some normative frameworks go further than that and adopt a holistic view in which it is entities such as species or ecosystems that carry moral weight (cf. Hayward 1995). Callicott is one of the philosophers who suggest that we must go beyond merely atomistic and anthropocentric concerns, towards holistic care based on sentiments, for both immediate posterity and the long-term future, and to provide normative reasons to manage climatic changes (cf. Callicott 2014; cf. Paper I). Paper I primarily focuses on Jamieson and Callicott due to their converging on the insufficiency of existing ethical theories when applied to climatic changes, and for their own ambitious suggestions.

The difference between anthropocentrism and non-anthropocentrism concerns how to regard intrinsic value, where several ecocentric philosophers challenge anthropocentric outlooks. For instance, Holmes Rolston asserts that it is “an astounding arrogance to say that [...] before we arrived there was nothing of value” (Rolston 2012: 119). Consequently, value is not so much *ascribed* to the environment or ecological systems, as it is *discovered*. Similarly, to Callicott, “ecology changes our values by changing our concepts of the world and of ourselves in relation to the world” (1982: 174). Arne Næss has proposed similar views (1989: 66). Yet, Næss has also suggested that intrinsic values provide reasons for caring for non-human animals and ecosystems, but that the intrinsic values of other species are an axiom, an intuition, for which he cannot find proof (Næss 2002:65; cf. Paper II). Often, such perspectives seem to find normative recommendations in empirical statements derived from ecology. Such viewpoints challenge Hume’s ‘is-ought fallacy’, which is also acknowledged and

circumvented, so several of the philosophers claim, on the grounds that it is possible to found normative assertions on empirical observations regarding, for instance, the health and well-being of ecosystems and similar (cf. Næss 1989: 67; Rolston 1979; Rolston 2012: 47, 73, 76, 121; Callicott 1982; Callicott 2014: 76ff). This view, and the many problems associated with it, will not be discussed further here as it suffices to say that there are disagreements on what moral reasons support the recommended goals. Ecocentric views would recommend moderate interference with the environment, since its intrinsic and non-instrumental value should be respected. An anthropocentric viewpoint would endorse different reasons for such moderation.

The influence of the axiological discussion on policies and on the political discussion might not be straightforward. It can marshal arguments, induce reflection, and explicate perceptions of what is at stake (cf. Williams 1995: 233). But this might be a general issue for moral philosophy, not environmental ethics *per se*. As suggested by Bernard Williams, there is no ‘special way’ in which philosophical considerations such as the above join the political discussion (cf. Williams 1995). However, several environmental philosophers explicitly attempt to have some practical bearing (cf. Norton 2005; Næss 1989). Of course, environmental ethics, as a branch of applied ethics, has an interest in practical issues regarding how we should live and act, and assessing the underlying reasons regarding such practical issues (cf. Samuelsson 2010). Such assessments in part concern how justified actions are, by analyzing their underlying normative reasons. It could be assumed that the moral assertions at least intend to *influence* what consideration an agent or decision maker should take when determining the moral status of actions, how to view the rightful claims of others (including non-human beings), what policies and goals can be required to meet those claims, and the normative reasons motivating such policies (that is, the soundness or coherency of the underlying reasons).<sup>11</sup>

The normative issues give rise to the idea that it can arguably be required that a normative theory intended for practical usage can answer or enable a systematic and principled reasoning about, suggested in Paper I:

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<sup>11</sup> As convincingly suggested by Lars Samuelsson, the discussion in environmental ethics regarding intrinsic values ultimately comes down to normative reasons: “The point of establishing that nature has intrinsic value must be that such values would lay claims on us; that they would supply us with reasons for action with respect to their bearers” (Samuelsson 2010: 519). A non-anthropocentrist would suggest that we have a *direct* reason for caring about nature (such as due to respecting intrinsic worth), whereas an anthropocentric would view such reasons as *indirect* (being dependent upon the function of, say, an ecosystem for human welfare).

(1) How reasonable, coherent, or sound are the moral reasons for achieving state of affairs S?

(2) Who has responsibility to achieve S?

(3) What sacrifices and burdens, including non-monetary, can be rightfully expected when aspiring towards S?

All three questions require normative answers and reasoning. By way of enabling answers or making principled reasoning possible, the questions can be used to 'test' normative assertions to explicate how they can reply to, or enable reasoning about, the central issues when setting goals and how sound the provided reasons are. How Jamieson's and Callicott's respective accounts answer these issues, and thus whether their accounts are adequate for setting goals, is the focus of Paper I. Paper II continues with similar issues to those in Paper I, but suggests that the deep ecological framework, as advanced by Arne Næss, could be beneficially applied in contemporary discussions on climate change.

## Climate justice aspects

Ethics is not the only normative aspect relevant to climate change, nor to goals, as justice is often discussed in normative political theory and climate change. Paper III discusses the role of disagreements regarding the soundness or correctness of a normative requirement, being an additional dimension relevant to social decision making.

The burden to enhance the adaptive capacities of vulnerable agents with legitimate claims to such resources can be distributed according to different principles (cf. Duus-Otterström and Jagers 2012; Jagers and Duus-Otterström 2008). What are reasonable principles for sharing such burdens? There are differences between, for instance, ascribing burdens due to past emissions (often known as 'the polluter pays' principle) or due to current abilities to enhance the adaptive capacities of others (regardless of past emissions). The issue of which principles guide such burdens is often discussed in climate justice (cf. Shue 2014; Caney 2005; Page 2006; Singer 2009). Moreover, what size entitlements do vulnerable agents have, and what states of affairs should those adaptive capacities enable? In practice, there are few mechanisms for such enhancement, the Climate Convention's *Adaptation Fund* being one exception. However, the fund is somewhat inadequate, both in terms of the principles by which

funding should be divided (cf. Persson and Remling 2014: 5; cf. Paper III), as well as the extent of that funding (cf. Moellendorf 2014: 186).

Issues of justice, both of inter- and intra-generational kinds, also play a significant role in sustainable development. The minimal definition offered in *Our Common Future* views sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987: 43). This definition has an obvious inter-generational aim. However, there are other ways to conceptualize sustainable development, giving rise to the distinction between ‘weak’ and ‘strong’ sustainability as being different ideas about what should be sustained. The former focuses on the total quantity of goods, the substitutability between natural and man-made capital, and the non-declining total stock of capital, whereas the latter rejects substitutability, instead emphasizing the long-term integrity and health of ecosystems (cf. Connelly 2007; cf. Paper II, and III). Ultimately, the issue concerns what is required for allowing future generations to meet their needs, and what sacrifices and costs (including non-monetary) we are obligated to take on to ensure that future generations do indeed meet their needs. Climate change and sustainable development are often intertwined. For instance, climate change adaptation is arguably a necessary requirement to ensure sustainability in areas where the impacts of climatic changes will have severe environmental, economic, and social consequences (see, for instance, the decision-facilitating tool *Sustainability Analysis*, which was developed under the auspices of the Swedish research project *Climatools* [Baard et al. 2011; Baard et al. 2012]).

Yet, sustainable development also becomes intertwined with the ethical issues discussed above. For instance, ecocentric viewpoints are sometimes characterized as ‘very strong sustainability’, endorsing a view in which environmental resources are to remain unexploited, regardless of costs (cf. Ayres et al. 2001; cf. Paper II for criticism of this critique). Conversely, ‘weak’ sustainability (including the definition from *Our Common Future*) has received criticism, some from ecocentric philosophers such as Arne Næss (2008: 297; Paper II), claiming that the concept does not recognize the moral consideration of ecosystems or species – as long as human well-being can be secured, weak sustainability can permit grave degradation of the natural environment. How sustainable development is conceptualized, what to include in the concept, and what sacrifices are generated, might provide different sustainability goals.

### **c) Practical constraints and normative demands**

A goal intended to guide practical decisions has to consider and combine both achievability and desirability, both empirical and normative aspects. Setting goals and neglecting moral and value-related aspects would make it difficult to choose between different achievable states of affairs and to assess the permissibility of implemented means, whereas goals that do not consider empirical aspects might be overly demanding and impossible to achieve. Moreover, goals have to consider the temporal frames between the point in time of setting a goal and the point in time of intended goal achievement, which adds additional uncertainties. Not only are there likely to be disagreements regarding to what to ascribe moral significance and how to rank different consequences, such ascription and/or rankings might change over time.<sup>12</sup> Similarly, assessments regarding achievability might also change. Ultimately, the issue of combining the two dimensions concerns how, and to what extent, a normative demand should, and could, be implemented into concrete actions. Lacking possibilities to practically implement a normative demand does not necessarily say anything regarding the veracity or soundness of that demand. It might, however, say something about how reasonable a moral demand is to actual practice and goals.

Say that there is a goal, the normative status of which we are justifiably confident holds (that it is right, sound, or similar) at the time point of intended goal achievement, and all relevant actors agree on this, although the goal is unlikely to be achievable. An example could be, for instance, the proposed Sustainable Development Goal 1, ‘End poverty in all its forms everywhere’ – the desirability of this goal will not change. It might be uncertain or unlikely that the goal is fully possible to achieve. There are arguably moral motivations for setting such ‘absolute’ goals. For instance, setting the likely more realistic goal of ‘We should decrease poverty to tolerable levels’ would be a very different goal. Determining in a normatively satisfying way what are ‘tolerable’ or ‘acceptable’ levels of poverty (or famine, or malnutrition, or harmful impacts of climatic changes) would be very difficult (cf. Shue 2014: 134). ‘Absolute’ goals ideally have the possibility of driving institutional or legislative changes, or more generally to have a

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<sup>12</sup> To environmental philosopher Bryan G. Norton, uncertainty regarding values provides reason for preservation: “if the ‘true’ value of natural systems is unknown today, this is all the more reason to save them for the future, where their full and true value may be learned” (Norton 2007: 29). A decision that does not reflect that potentially true value will most likely be regretted. Similar propositions are offered in Paper IV.

performance-enhancing function, and so provide long-term guidance for short-term action (cf. Shue 2014: 135).

However, something that is impossible to achieve can hardly be reasonable to demand. But, the feasibility or likelihood of practical implementation is not necessarily a criterion by which the soundness of a moral assertion is to be determined, as eloquently analyzed by David Estlund (2008; 2014) and as discussed to a very modest extent in Papers III and V of this thesis. Moreover, normative theories *cannot concede* practical realities. If they did, they would not have anything to be normative about (cf. Estlund 2014: 132). All normative theories are, to an extent, what Estlund calls ‘aspirational’, “purporting to recommend or require some things even if they will not be done” (Estlund 2014: 132; cf. Estlund 2008).<sup>13</sup>

To what extent goals should take practical considerations into account ultimately concerns the question of the practical role of normative theories; in other words, what part facts or existent constraints should play in normative recommendations. One could assume that, at least in part, it is reasonable that a normative demand has to take practical constraints into consideration. That which is justifiably and truly believed to be impossible to achieve cannot be expected of an agent. But, being too constrained by empirical constraints would hardly seem justified either (see Papers IV and V).

There are also constraints of a normative character. One example is existent and ineradicable disagreements regarding “the terms that should regulate shared political associations, the values and principles that should guide political action, and the end towards which political power should be employed” (Sleat 2014: 5; cf. Williams 2005). In an ideal world, such disagreements and conflicts would disappear (cf. Sleat 2014), although they are prevalent in actual politics and social decision making. Consequently, one central aspect of political realism, as suggested by Bernard Williams, is to take such existent disagreements as a starting point, rather than start with a normative theory or ideal.<sup>14</sup> That is, the first, or rather the primary, question is, as it was for Hobbes, how to

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<sup>13</sup> The relation between normative political theories and practical realities has spawned a discussion on ideal and non-ideal theory (cf. Stemplowska 2008; Valentini 2012; Gilbert and Lawford-Smith 2012). Paper III draws on this discussion, and places it in the domain of climate change adaptation.

<sup>14</sup> Agreement regarding a normative political demand or value (such as a value to guide political action, the end toward which political power should be employed, or, closer to the topic of this thesis, which goals to set and aspire towards) does not equal the normative demand being true. As suggested by Williams, a political decision “does not in itself announce that the other party was morally wrong or, indeed, wrong at all. What it immediately announces is that *they have lost*”



“secure order, protection, safety and the conditions of cooperation” (Williams 2005: 3), rather than starting from a normative principle disassociated from concrete realities.

Besides Paper III, the relation between moral demands and practical constraints is a concern in Papers I and II. Paper II evokes the ‘deep ecology’ of Arne Næss. While often portrayed as a ‘utopian’ perspective involving too great demands to ever be realized, the paper suggests that the practical relevance is actually one of the greatest contributions that this perspective can offer, alongside an analysis of value systems that enable practical actions, and goals, to be more concrete precisions or specifications of overarching values and norms.<sup>15</sup> As he suggests, “the more concrete policy statement which mentions specific plans for action does not usually concur with [moral] principles, but follows the well-travelled routes of past political processes” (Næss 1989: 77). What is at stake is to fill in the missed ‘mid-level’ between principles and practical actions – thus, how to implement principles into practice. Suggesting a single utopian view would “likely have appeared as an unacceptable contradiction in light of [Næss]’ rejection of universal truths and all-encompassing systems” (Glasser 2011: 71). Yet, Næss also proposes that “in the fight for what we believe is right and proper, we must absolutely be rock solid. At the same time, we must always be open to the possibility that we have made a mistake, and be adaptable when new, relevant circumstances arise” (Næss 2002: 67).

The combination of fallibilism and ‘rock solid’ beliefs is also the topic of Paper VI, which utilizes adaptive ecosystem management as advanced by environmental pragmatist Bryan G. Norton. Given fallibilism, it might be the case that the initial confidence in the veracity of empirical or moral assertions is erroneous. Even if we are confident in the soundness of a normative proposition, or the veracity of an empirical claim, or agree politically that a decision should be taken, we might learn that we are wrong, which could sometimes motivate the reconsideration of previously set goals.

Several sustainability, adaptation, and mitigation goals remain distant, and that distance is increasing, despite not being technically, physically, or socially *impossible*

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(Williams 2005: 13). The level of actual or likely agreement is not necessarily a criterion for assessing the veracity of a normative political demand.

<sup>15</sup> The actual concept that Næss uses is ‘precision’, and it is derived from his works on semantics and interpretation (cf. Næss 1989: 42ff; cf. Paper II). In [2008: 116-117], Næss discusses a four-level precision or clarification from overarching principles to concrete actions. Despite the eloquent separation between different levels, what he actually proposes is a quite complex intertwining of normative assertion and empirical hypotheses. See for example [1989: 42], which makes out a total of 13 normative assertions and 15 empirical hypotheses.

(see also Paper IV on the increasing distance in the achievement of the Swedish Environmental Quality Objectives). Ultimately, what goals are set and aspired towards will express care of future, and current, generations of humans and non-humans and to what extent agents are prepared to involve such concerns in consideration, deliberation, and decisions. There is great room for improvement. Normative ideals that pay heed to, but are not overly bound by, practical constraints and practical goals founded on explicit and robust normative argumentation could serve a benign purpose in such improvement. The framework presented in this thesis can provide the motivation for practical goals that are initially unlikely to be achievable, but which are iteratively adjusted as more is learnt, in order to aspire towards states of affairs that are more desirable than where current trajectories are heading.

## **4. The papers**

The papers in this thesis form a consistent whole, assessing the moral reasons for setting goals, what forms of goals could be set, and what to do if it is discovered that the empirical and normative foundations of those goals can be doubted. The following will provide a brief description of each paper.

### **I. New Beginnings?**

Are there good moral motivations for setting goals to slow the magnitude and pace of climatic changes, and what can be expected of normative frameworks that intend to offer practical guidance? Environmental philosophers Dale Jamieson and J. Baird Callicott have, respectively, diagnosed the ineptitude of normative theories, leading to a lack of efficient and ambitious policies. The two philosophers also provide their own suggestions for revised, or supplemented, normative theories intended to foster motivation to act.

Both Jamieson and Callicott have the intention of providing motivations to manage climate change, something that they claim that existing moral philosophies does not provide. Setting, and aspiring towards, mitigation and adaptation goals are ways in which climatic changes and its impacts can be managed. Hence, the paper asks whether Jamieson or Callicott can provide moral motivations for setting and aspiring towards goals. This paper analyzes their frameworks by identifying four questions that, it is suggested, all normative theories intended to guide actual goal-setting have to consider, concerning: (1) reasons or motivations, (2) agency, (3) required costs or sacrifices, and

(4) dealing with uncertainty pertaining to achievability. It is ultimately suggested that the two frameworks perform rather modestly in responding to these questions. However, this might not be a problem for a moral theory, although it becomes a problem if that theory is intended to guide actual goal setting.

## **II. Managing Climate Change**

Paper II deals with similar issues as Paper I. This paper evokes the deep ecological framework of, primarily, Arne Næss. While today often neglected, eight reasons are provided for why it is an appropriate normative theory for reasoning about the moral dimensions of climate change. These are: (a) the long-range perspective, (b) the holistic consideration, (c) intrinsic values, (d) moderate interference with the non-human world, (e) insistence on biodiversity, (f) anti-consumerist stance, (g) the systematic analysis of the structure of norms and the need for fundamental change, and (h) practical relevance. The paper suggests that the deep ecological framework is 'in line with current times', which means that many of the themes discussed by Arne Næss are also found in current discussions regarding sustainability and climate change, regarding for instance upholding biodiversity or 'downshifting'. The paper makes a modest suggestion; it does not claim that Næss will offer a 'magic bullet' solution, but merely that it could prove fruitful to include his, currently very neglected, ideas in contemporary discussions on climate ethics. Previously, deep ecology has primarily been reduced to discussions on environmental ethics, which is not equivalent to climate ethics. Moreover, the deep ecological perspective has exerted less and less influence on environmental ethics over the past decade or so, although it might be time to pick up the thread and see what contributions it can make to specific ethical discussions on climate change. For instance, two points of relevance are the value of biodiversity for sustainable development, included in the 'boundaries' by Johan Rockström and others, and the 'downshifting' proposed by economists such as Tim Jackson – both issues are discussed by Næss.

Ultimately, the deep ecological framework recommends an extension and deepening of care (Næss 2008: 311; cf. Paper I on Callicott's proposal for care). While the normative suggestions of deep ecology have, to some extent, been exhausted, one of the most central contributions is the systematic analysis of norms, values, and practical relevance that Næss' framework can offer. The greatest contribution is not the

discussions on ontologically curious concepts such as ‘self-realization’,<sup>16</sup> but is rather the relation between overarching values, norms, and concrete action. Such a discussion could make a significant contribution to the discussion on the relation between moral principles and action. This is further discussed in Paper VI, in which it is suggested as one element in the framework for when goals should be reconsidered. The analytical framework provided by Næss could be utilized in goal-setting. Provided that goals are considered as practical implementations of moral principles, the framework can provide a way in which to analyze the progression and many levels from moral principles, to concrete action.

Identifying a ‘missed mid-level’ between concrete actions and values or normative principles, the framework offers a step-by-step clarification that conjoins concrete action with such principles. Finally, however, the paper suggests that the deep ecological framework evokes the issue of what can be expected of normative theories that intend to guide action. Deep ecology can provide foundations for long-term goal setting and increase deliberation on moral considerations when setting such goals. Even if unlikely to be achieved in full, the deep ecological framework might have a function to play when changing currently unsustainable trajectories.

### **III. Adaptive Ideals and Aspirational Goals**

While Papers I and II primarily discuss normative moral theories, Paper III is focused on normative political theories and anticipatory adaptation. The paper first assesses what ideal anticipatory adaptation would consist of, and then suggests how there are both empirical and normative challenges to achieving such states of affairs. The paper draws heavily on recent discussions from normative political theory regarding ideal and non-ideal theory and political realism, and the role of such concepts as *feasibility* and *agreement* in social and political decision making. In doing so, the paper surveys two different discussions in political theory: on the distinction between ideal and non-ideal theory, and on realism. The discussion on political theory has a central purpose, namely regarding how feasible the recommendations or outcomes of political theory should be,

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<sup>16</sup> Suggestions such as ‘self-realization’ seem to either propose that we revise our conception of ‘self’ or make the claim that we are dependent on our surrounding resources. The first interpretation is highly questionable, whereas the second is trivial. Even so, claims regarding other conceptions of ‘self’ are somewhat common in environmental ethics (see for instance Martin Bunzl’s recent case for transcendentalism in Bunzl [2015]).

or to what extent practical constraints should be taken into consideration when making normative recommendations or investigating principles of justice. While some suggest that ‘realism’ could be incorporated as a non-ideal account of political theory (cf. Valentini 2012), others argue that ‘realism’ is a way of conducting political theory that incorporates disagreements and conflicts regarding values, rather than focusing on feasibility (Sleat 2014). To the first-mentioned, the notion of ‘feasibility’ has a central role, as it would be naïve to hold the achievement of perfect justice as a moral standard, given that it is unfeasible (cf. Valentini 2012: 659). This evokes issues regarding how feasibility should be defined, which is also a vital discussion in the field of political theory (cf. Gilibert and Lawford-Smith 2012; Gheaus 2013). To the latter-mentioned, existing disagreements and values are taken as starting points for theorizing, and politics is the activity through which such conflicts are contained and differences explicated (cf. Sleat 2014: 5). The paper does not take a stand regarding these different views of ‘realism’ in normative political theory, but rather surveys the different conceptions, and the role that feasibility and existing practical constraints play when making normative recommendations. This provides the background for the suggested taxonomy.

The two dimensions are conjoined to create a taxonomy where proposed goals are analyzed and managed. A proposed goal might be both achievable, and agreed-upon as desirable, presenting no specific challenge to being implemented. However, some proposed goals might be either: (a) likely to be achievable, but not agreed-upon as normatively desirable or required, (b) unlikely to be achievable, but agreed-upon as desirable, or (c) neither likely to be achievable, nor agreed-upon as desirable. By placing proposed goals in such a taxonomy, different strategies can be applied for managing such a goal before implementation, on the assumption that a goal should be both sufficiently likely to be achievable or approachable and have its normative status agreed-upon. It is assumed that a goal in which there is quite high confidence in terms of both achievability/approachability and desirability is often preferable.<sup>17</sup> This does not suggest that it is necessarily irrational to set initially unrealistic goals. Indeed, a substantial part of this thesis is devoted to investigating the challenges to setting realistic goals. For instance, it could be justifiable to set goals where achievability or

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<sup>17</sup> However, it is also assumed that the proposed goal is non-trivial. That is, a proposed goal may be both known to be achievable or approachable, and desirable, but represent a quite trivial state of affairs that is not substantially different from current state of affairs.

approachability is uncertain, or unlikely, but the state of affairs that the goals portray is highly desirable and could be approached or aspired towards. However, it would often be irrational to set goals under the condition of complete ignorance, provided that it is possible to form some degree of belief regarding achievability (such as generating knowledge through research, given acceptable costs). The reason for this being that it would often be irrational to set goals in actual social decision making in which achievability is unknown, or devoting resources to a state of affairs that is highly unlikely to be achievable, given the prevalence of other policy areas requiring resources. Similarly, if there are too great disagreements regarding the desirability of a goal, it would be curious whether it should be planned for. Enabling expressions of disagreement regarding goals is a central tenet of the political sphere.

Consequently, the aim is to adjust a proposed goal to a situation in which it is both believed to be achievable or approachable to a sufficient degree, as well as desirable. However, many areas of planning have to cope with uncertainty in these areas, a theme which is also discussed in Paper IV. For instance, if (a) is the case and there are conflicting views pertaining to how reasonable a normative demand or value that a goal manifests is, it might be important to establish spheres in which compromises might be found. Ensuring the existence of such spheres in which the soundness of a normative claim can be considered from divergent perspectives is of importance. One problem with this is that deliberation cannot go on indefinitely, and the 'adjustment' of goals has to be settled by considering different criteria. Differently put, 'ideals' are adapted to practical constraints – disagreement being one such constraint – to offer guidance. However, one should not exaggerate the level of disagreement, since there are arguably several normative demands and states of affairs that are considered, by most, morally sound. If (b) is the case, a proposed goal might have a performance-enhancing function, similar to that investigated in Paper IV. Furthermore, a normative demand that is agreed-upon could still serve a purpose, albeit one of limited action-guidance and utility for setting goals. Namely, it can function as an evaluative standard by which to compare current states of affairs, and which there would be a (most likely defeasible) duty to aspire towards. Both of these aspects point to the aspirational function that a proposed goal can have. Lastly, in (c), there are proposed goals that are neither likely to be achievable, given current knowledge and abilities, and which evoke controversies regarding their normative adequacy. Such goals are arguably the farthest from being implemented, but by utilizing one of the two strategies previously mentioned there might be ways of adjusting such a goal.

#### IV. Cautious Utopias

There are many challenges when setting long-term goals. Still, there is sometimes a need to set such goals. This is the case with, for instance, climate change and sustainable development: if goals are not set and planned for, potentially catastrophic climate change will most likely be the result, with great risks of unsustainability. Consequently, the word ‘cautious’ is dually justified; as concerning risks and possible harms that exist rather far off in the future but the magnitude of which are dependent on current choices, and separating this category of goals from ‘ordinary’ utopian goals of limited action-guidance.<sup>18</sup>

This paper discusses two aspects of goal-setting, achievability or approachability, and desirability, and two problems that concern both aspects: changing preconditions and epistemic uncertainty. The two problems are, it is claimed, often prevalent in planning with long temporal discrepancies between the point in time of setting a goal, and of the intended achievement of the goal. The paper criticizes other strategies in such instances for setting only short-term goals, postponing goal-setting, or relying on utopian goals. Instead, it is proposed that goals that are not as lax as utopian goals, but which permit greater levels of uncertainty than realistic goals, are required. Such goals, here entitled cautiously utopian goals, are desired future states of affairs that:

- i) given that it has been set as a long-term goal, is believed, but not certain, to be achievable, the desirability of which will remain; and
- ii) is open to future adjustments due to changes in desires and/or in factual circumstances

By investigating 16 Swedish Environmental Quality Objectives, quality criteria are proposed. In other words, criteria are offered for assessing what make a *good* cautiously utopian goal. Several such criteria refer to defining the levels of a sufficient degree of likelihood that means can be developed, ascribing responsibility for iterative assessments to experts, including stakeholders from both national authorities and civil society, and considering the possible reconsideration of the goal.

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<sup>18</sup> Both historically and currently, there are others who also discuss alternatives to traditional utopias, such as ‘real utopias’ or ‘concrete utopias’ (cf. Rawls 1999; Wright 2010; Bloch 1995). The first component, regarding the management of risk, sets the category suggested in this paper apart from those. One shortcoming of Paper IV is, however, that it does not distinguish ‘cautious utopia’ from other suggestions to a sufficient degree.

## **V. Risk-Reducing Goals**

A goal might become increasingly distant. As suggested in Paper IV, maintaining the possibility of reconsidering goals is an important aspect, given uncertainty when planning from long-term perspectives. Moreover, what is not possible or feasible cannot be obligatory. By discussing the 2 degrees Celsius target and the increasing distance to achieving it, this paper investigates ideals and abilities when managing complex environmental risks.

Ultimately, the paper concerns whether a normative demand loses its force if it is not feasible. To meet this purpose, the paper investigates different forms of feasibility, as sometimes discussed in normative political theory, and briefly analyzes the principle that 'ought' implies 'can', as well as normative demands to reduce and manage risks in social decision making. While the paper grants the reasonableness of 'ought' implying 'can', it is suggested that when it is difficult to define feasibility, and when there is a risk of possible catastrophe, revising a normative demand should be treated with caution. It is concluded that reconsidering goals for managing the risks of grave, even catastrophic, impacts, requires that one is fairly certain that doubts regarding the potential to reduce risks are justified. Furthermore, one should not lose sight of the aspirational purposes of goals that are intended to reduce risks, but which might be unlikely to achieve or where feasibility is highly uncertain. Consequently, reconsidering such goals should be a cautious endeavor.

## **VI. Change of Plans?**

An agent might be wrong in their initial estimates regarding achievability and/or desirability. Even the most conscientious agent might have erroneous beliefs, have misunderstood information, or simply be wrong. However, reconsideration of goals is costly, and there might not always be sufficient degrees of doubt to motivate such reconsideration. By discussing pragmatism, and environmental pragmatism in particular in the form of adaptive ecosystem management, the issue of when there is motivation to reconsider goals is investigated. The issue of doubt is central to this paper, which queries what sufficient doubt entails. That is, doubt that not only points toward the mere possibility of being wrong, but in which it is plausible that one is wrong.

This central role of doubt also motivates the application of environmental pragmatism that combines fallibilism with an anti-skeptical stance. According to this



perspective, there are (at least) two different experiences in which one might learn that one holds erroneous beliefs: (a) due to a problematic or surprising event upsetting confidence held in relevant beliefs, or (b) when respectable but dissenting views are voiced concerning chosen means or values. It is suggested that in sustainable ecosystem management both (a) and (b) have limited applicability. Observing failure would most likely entail that one has to settle for coping strategies in possibly catastrophic situations, whereas environmental pragmatism does not offer criteria by which to assess where to place limits on participation – instead, there is a risk that *all* alternative views will be considered as causing doubt.

Instead, what is proposed is a rule that takes both the source and strength of doubt into consideration, as well as what goals in a goal-means hierarchy the doubt is directed towards. Force of doubt might come from divergent viewpoints from experts, or from learning of others' observations. Moreover, goals usually come in sets of goals and sub-goals, with greater precision (cf. Paper II), from overarching visions down to concrete actions. Most likely, more overarching goals have a greater degree of robustness and thus withstand quite severe doubt. But more concrete precisions are more vulnerable to doubt and divergent views, and so generate greater disagreements. Consequently, such sub-goals are likely to be doubted more easily than overarching goals. It is suggested that these two factors are combined when motivating the reconsideration of goals.

## 5. Svensk sammanfattning

Detta är en avhandling i filosofi. Avhandlingens ämnesområde rör osäkerhetsaspekter gällande mål relaterade till klimatförändringar samt hållbar utveckling. Det finns ett stort behov av mål inom dessa områden, och även flera existerande exempel. Ett sådant är det så kallade "två graders"-målet, som syftar till att undvika att jordens medeltemperatur ökar mer än två grader relativt för-industriell tid. I Sverige finns miljökvalitetsmålen, som diskuteras närmare i Artikel IV. Dessa mål har långa tidsramar, och fordrar koordinering av många aktörer, utsträckta såväl rumsligt som över tid, för att uppnås. Det finns dock många utmaningar med att sätta, och nå, sådana mål, av både empiriskt och normativt slag. Men om sådana mål inte sätts, och strävas att nås eller närmas, är det mycket möjligt att katastrofala situationer blir gällande. Avhandlingens diskussion motiveras ytterst av *behovet* av att sätta sådana mål, trots de många *utmaningar* med att sätta mål som sträcker sig över långa tidsramar, involverar många aktörer, samt där det finns stora osäkerheter av både empiriskt och normativt

slag. Ytterst är avhandlingens område relationen mellan normativa krav och praktiska begränsningar. Artiklarna i avhandlingen syftar att forma en helhet: normativa skäl för att sätta mål (Artiklar I och II), vilka typer av mål som kan sättas givet empiriska och normativa utmaningar (Artiklar III och IV), and vad man kan göra ifall ursprungliga empiriska eller normativa antaganden, trots rättfärdiga, visar sig vara fel eller rimligtvis kan tvivlas (Artiklar V och VI).

Det finns olika definitioner av mål i avhandlingens artiklar. Sammanfattningsvis kan mål definieras som framtida tillstånd som en eller flera agenter har intentionen att uppnå eller närma sig med en uppsättning handlingar som med goda skäl antas vara tillräckliga för detta. Målet motiveras av att det framtida tillståndet överensstämmer med agentens eller agenternas nuvarande och framtida värderingar och/eller preferenser, eller att det framtida tillståndet är moraliskt obligatoriskt eller önskvärt. Mål kan ses som praktiska tillämpningar av normativa etiska och/eller politiska krav, och relationen mellan empirisk uppnåbarhet och normativa krav är central vid målsättande. Detta kommer främst diskuteras i avsnitt 5b nedan. Avsnitt 5a diskuterar klimatförändringar, hållbar utveckling, och ytterst behovet av att sätta mål över långa tidsramar. Avsnitt 5c innehåller en summering av avhandlingens artiklar.

## **a) Klimatförändringar**

Klimatet förändras som en följd av tidigare och nuvarande generationers handlingar (IPCC 2013). Främst sker denna förändring som en följd av utsläpp av växthusgaser. Att klimatförändringar sker som en följd av människors aktiviteter är välkänt genom till exempel Förenta Nationernas klimatorgans (IPCC) rapporter. Dessa förändringar kommer få allvarliga miljömässiga, sociala och ekonomiska konsekvenser.

Men även om vi vet att klimatet förändras som en följd av våra handlingar så saknar vi kunskap om vilka nationella, regionala, och lokala konsekvenser som kommer att uppstå vilket är ett problem såtillvida att det finns goda skäl att planera så att dessa konsekvenser håller sig inom acceptabla gränser. Denna osäkerhet är både empirisk och normativ. Vi vet till exempel inte exakt vilka de lokala konsekvenserna kommer att bli, och således saknar vi även kunskap om vilka anpassningsåtgärder som är adekvata, eller hur vi bör planera hållbart. Även om vi kan vara säkra på att klimatet förändras som en följd av främst utsläpp av växthusgaser, är det inte självklart i vilken utsträckning den påverkas, och exempelvis hur mycket utsläpp och koncentrerad av koldioxid som kommer att innebära en två grader Celsius-ökning av global medeltemperatur relativt förindustriella tider. Klimatet kan variera med avseende på

sårbarhet, och möjligen kommer vi nå väldigt riskabla situationer redan vid mindre ökning av medeltemperaturen. Oavsett så kan vi vara säkra på att vår påverkan på klimatet är stor, och att det förmodligen är bättre att vara försiktig, än att ta onödiga risker, när det rör sig om potentiella katastrofala skador i många delar av världen.

För att nå ett mål som "två graders"-målet, det vill säga att undvika att jordens medeltemperatur överskrider en ökning på två grader Celsius relativt för-industriell tid, kommer det krävas stora ansträngningar. Det anses bland annat kräva att utsläppen minskar med 40-70 procent globalt till 2050, relativt 2010 (IPCC 2014a: 21). Om inga andra ansträngningar görs utöver befintliga utsläppsminskningar är vi på väg mot en ökning av jordens medeltemperatur 2100 mellan 3,7-4,8 grader Celsius. Dock görs väldigt lite. Mellan perioden 1970-2000 var den årliga ökningen av utsläpp av växthusgaser 0,4 gigaton (eller 1,3 procent), mellan åren 2000-2010 var motsvarande årlig ökning i genomsnitt 1,0 gigaton (eller 2,2 procent) (IPCC 2014b: 6-7). Det är alltså inte enbart så att vi, globalt, rör oss mot minst två graders ökning av jordens medeltemperatur 2100 relativt för-industriell tid – vi rör oss också dit i allt snabbare takt.

Hållbar utveckling och klimatanpassning kräver planering som överskrider de tidsramar som vi är vana att planera i. Utöver det fordrar sådan planering politiska beslut, men överskrider politiska mandatperioder. Oavsett om vi tar beslut att lägga väldigt mycket resurser på att sätta mål och uppnå dem, samt gör nödvändiga omställningar till mer hållbara livsstilar eller teknikutveckling, finns det stora osäkerheter avhängiga tidsramarnas längd, och vi har en i förhållande till problemet väldigt kortsiktig syn. Utöver de empiriska utmaningarna finns det även normativa eller värde-mässiga utmaningar. Vetenskap kan förse oss med förklaringar till de grundläggande mekanismerna bakom klimatförändringar, men de svarar inte på frågan om vad vi bör göra för att stävja dem (jfr. IPCC 2001:2; jfr. IPCC 2014b: 211). Kort sagt finns det såväl empiriska som normativa osäkerheter vid sättande av både utsläpps- och hållbarhetsmål. Filosofin kan möjligen förse sådant målsättande med behövlig hjälp.

## **b) Filosofi och mål**

Mål har genererat blygsamt filosofiskt intresse, även om det finns undantag (Edvardsson Björnberg 2008; Castelfranchi 2014; Castelfranchi och Paglieri 2007; McCann 1986; Richardson 1994). Som angetts ovan består mål åtminstone av (1) en empirisk och (2) en normativ del. Den första punkten rör främst frågor om uppnåbarhet eller hur man kan närma sig det tillstånd som ett mål representerar; den

sistnämnda punkten rör vilka mål man bör uppnå. Den följande diskussionen är uppdelad således.

## Empiriska osäkerheter

Ett satt mål bör understödjas av en uppfattning om huruvida det tillstånd som målet representerar är uppnåbart eller möjligt att närma sig. Det vill säga med vilka medel, om några, detta tillstånd kan uppnås. Om det inte finns några existerande medel för att uppnå målet kan dessa möjligen utvecklas. Om utveckling inte är möjligt, eller det inte finns några kända medel överhuvudtaget för att nå målet, är det förmodligen ett utopiskt mål. Distinktionen mellan "realistiska" och "utopiska" mål som görs i flera av artiklarna fokuserar på denna skillnad gällande vad man vet om medel för att uppnå sådana mål, och hur tillgängliga dessa medel är. Ytterst handlar den empiriska dimensionen om att bilda sig en uppfattning om påståenden gällande medel.

Idealt så finns det en god uppfattning om vilka tillstånd man kan nå, och hur dessa kan nås – det vill säga med vilken uppsättning handlingar. Ofta finns det dock flertal osäkerheter. Det kan också finnas meningsskiljaktigheter mellan olika experter gällande hur adekvata en viss uppsättning medel eller handlingar är för att nå ett specifikt tillstånd. Ibland kan det verka rimligt att anta att ett tillstånd är möjligt att uppnå, men att det fordras ännu ej existerande medel, alternativt mer utvecklade och effektiva medel (som exempelvis teknologi) än som för tillfället står till buds. Ofta kan man ha en ungefärlig uppfattning om huruvida teknologi kan utvecklas på sådant sätt. Om en teknologi anses rimligt möjlig att utveckla, kan sedan resurser allokeras till detta syfte. Detta är även en central del av närmandet av utsläppsmål. Till exempel kommer "två graders"-målet att fordra stora omställningar, och följaktligen såväl beteendeförändringar som teknikutveckling.

Men det är ofta svårt att uppskatta huruvida medel går att utvecklas, eller om de får de avsedda konsekvenserna. Det kan röra sig om svårigheter att förutsäga de samhällsliga konsekvenserna av policy. Ofta måste man acceptera osäkerheter, och sätta mål ändå. Men det är inte alltid lätt att göra den balansgång som fordras mellan det man vet är möjligt (ett realistiskt mål), och det som är alltför osäkert (utopiskt) för att vara rättfärdigat att satsa på. I Artikel IV ges en möjlighet till en sådan balansgång i formen av 'försiktiga utopier', men denna balansgång är något som genomsyrar flera av artiklarna i avhandlingen. Som diskuteras i Artikel V finns det olika sätt att definiera 'genomförbarhet' eller vad som är möjligt för en agent: det kan avse något som agenten

kan utföra 'här och nu', eller avse något som det uppskattas att en agent kan utveckla förmågan att göra vid ett senare tillfälle (cf. Besch 2011). Utöver de olika sätt att definiera 'genomförbarhet' visar flertalet av artiklarna på det epistemiska behovet av att bilda sig en uppfattning om hur rimligt, eller med vilken grad av övertygelse, man tror ett påstående gällande genomförbarhet är. Det vill säga, hur *säker*, och baserat på vad, är man på att en agent kan genomföra X i något av de sätt på vilket 'genomförbarhet' förstås ovan? Ofta är det substantiell osäkerhet gällande det tredje sättet. Detta gäller i synnerhet vid komplexa problem som är svåranalyserade, situationer där man saknar tidigare erfarenheter, eller där det saknas expertis och tidigare forskning. Tyvärr präglas ofta utsläpps- och hållbarhetsmål av alla dessa tre.

## Normativa utmaningar

Medan den empiriska dimensionen visar på vilka mål som *kan* uppnås, säger den lite om vilka mål som *bör* uppnås. Inte ens den mest säkra kunskapen gällande uppnåbarhet visar på vilket mål som en agent bör uppnå. Detta är istället en normativ eller moralisk fråga. Nedan delas denna diskussion om upp två olika aspekter: etiska, och politiska. Artikel I och II fokuserar främst på etiska dimensioner, medan Artikel III fokuserar på politiska.

Den normativa dimensionen skiljer sig åt från den empiriska, såtillvida att det här rör sig om vilka tillstånd som bör uppnås. Men i likhet med den empiriska dimensionen finns även här en epistemisk aspekt, som dock är något annorlunda. Hur rimlig verkar det krav som pekas ut? Hur övertygande är den, och hur väl understödd är dess underliggande motivering?<sup>19</sup> Till skillnad från formande av övertygelser gällande empiriska påståenden, är det ofta svårare att bilda sig en uppfattning om normativa kravs rimlighet. Som kommer belysas nedan så finns det inom miljöetiken olika sätt att förstå hur man kan bilda sig en uppfattning om normativa kravs rimlighet, och vad man bör ta i beaktande när man handlar.

### Etik

Det kan finnas etiska motiveringar till att vissa tillstånd bör uppnås. Exempelvis kan det vara etiskt önskvärt att andra inte utsätts för skada, men ej heller för stor risk för

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<sup>19</sup> Det kan finnas konflikter mellan olika moraliska krav, som alla är rimliga, men där enbart ett, och inte båda, kan uppnås. (cf. Bernard Williams [1973] diskussion om restplikter).

skada. Normativa skäl att reglera risker diskuteras i Artikel V (jfr. Hansson 2007; Hermansson 2005; Altham 1983; Hayenhjelm and Wolff 2011). Men många miljöfilosofier menar att våra traditionella moralteorier är illa rustade för att förse oss med vägledning gällande klimatförändringar, och att dessa följaktligen behöver revideras eller utökas för detta syfte. Två sådana förslag undersöks i Artikel I, som diskuterar Dale Jamieson (2014) och J. Baird Callicott (2014). Jamieson är kanske den som längst diskuterat befintliga normativa teoriers tillkortakommanden, och problemen med de principer med vilka vi tillskriver moraliskt ansvar. Redan 1992 föreslog han att våra normativa teorier och principer 'kollapsar' när man analyserar klimatförändringar och moraliskt ansvar, och att dessa fungerar bäst i begränsade 'Smith-och-Jones'-fall (Jamieson 1992: 149; 2014: 148ff). Det vill säga, när en identifierbar agent, Smith, avsiktligt gör något klandervärt eller skadligt mot en annan agent, Jones, som att bryta sig in i dennes hus och stjäla en TV. En specifik agent har avsiktligt gjort något som tillfogar en annan individ skada. Om man överför detta till klimatförändringar blir det lite annorlunda. Vi vet att utsläpp av växthusgaser driver på klimatförändringar. Men varje individuellt bidrag är så pass litet att det blir svårt att tillskriva ansvar till enskilda individer på motsvarande sätt som i Smith-och-Jones-fall. Istället är uppgiften, enligt Jamieson, att begränsa omfattningen och tempot på klimatförändringar genom en portfolio av svar (Jamieson 2014: 228ff), samt att utveckla 'gröna dygder'.

Men inom miljöetiken finns även andra aspekter som rör normativa rekommendationer. Till exempel finns det skiljaktigheter gällande vilken vikt som ska tillskrivas miljön, vilket i sin tur påverkar vilket hänsynstagande man tar i policys och beslut. Traditionellt har etik haft ett *antropocentriskt* fokus, vilket innebär att man främst beaktat människors intressen, rättigheter, eller preferenser (oavsett vilken normativ teori man i övrigt har beaktat). Många, främst miljöetiska, teorier utmanar denna antropocentrism. Biocentriska teorier inkluderar till exempel *alla* förnimmande eller kännande varelser i utilitaristiska analyser, eller intressen och rättigheter från deontiska perspektiv. Flera går längre än så, och menar att ekosystem kan ha intrinsikala eller inneboende värden, alldeles oavsett deras instrumentella värde för människor. Sådana perspektiv pekar ofta på arrogansen av att inget har värde innan en

människa är där att värdera det (cf. Rolston 2012: 119). Värde *tillskrivs* inte naturen, lika mycket som det *upptäcks*.<sup>20</sup>

Det som är relevant för denna avhandling är emellertid att de olika perspektiven föreslår olika normativa krav, och stödjer följaktligen olika mål. Normativa ramverk kan motivera vilket status en handling har (obligatorisk, förbjuden, tillåten), ansvar, och hur man ska se på legitima krav från andra, och vilka mål som kan krävas för att uppnå sådana krav. Artikel I tar fasta på denna relation mellan normativa teorier och mål, och ställer tre frågor som alla normativa teorier som ska omsättas i mål:

(1) Hur rättfärdiga, koherenta, eller motiverande är de moraliska skälen för att uppnå ett visst tillstånd?

(2) Vem har ansvar att uppnå detta tillstånd?

(3) Vilka uppoffringar och bördor, inklusive icke-monetära, kan rätteligen krävas för att nå detta tillstånd?

Alla tre frågor kräver resonemang och argument för att få fram giltiga normativa svar. Artikel I analyserar hur två miljöetiker skulle kunna resonera kring, eller svara på, dessa frågor – Dale Jamieson och J. Baird Callicott. Artikel II diskuterar inte dessa frågor, men presenterar hur den *djupekologi* som filosofen Arne Næss diskuterade kan möjliggöra normativa resonemang om mål.

#### Politik

Etik är inte den enda normativa dimensionen hos utsläpps-, anpassnings-, eller hållbarhetsmål. Dessa refererar ofta till samhälleligt och politiskt beslutsfattande. Det finns också en stor normativ politisk diskussion gällande områden som klimat och hållbarhet, som fokuserar på både intra- och inter-generationell rättvisa.

Utsläppsmål beaktar till exempel att atmosfärens förmåga att absorbera växthusgaser, medan vi fortfarande håller oss inom två grader Celsius, är begränsad. Denna gräns uttrycks antingen i mängden koldioxid och koldioxidekvivalenter (uttryckt i partiklar per miljon (ppm)), eller ton av kol i atmosfären ([www.trillionthtonne.org](http://www.trillionthtonne.org)).

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<sup>20</sup> Många av dessa perspektiv tycks finna normativa rekommendationer i empiriska påståenden från ekologi. Sådana synpunkter kolliderar med David Humes 'är/bör'-problematik. Många ekocentriker hörsammar detta och, menar man, kringgås på olika sätt, till exempel genom att dra normativa slutsatser baserat på empiriska iakttagelser om hälsosamma ekosystem, och dylikt (cf. Næss 1989: 67; Rolston 1979; Rolston 2012: 47, 73, 76, 121; Callicott 1982; Callicott 2014: 76ff). Sådana synsätt, och de många relaterade problemen som uppstår, kommer inte att vidare diskuteras här, där det räcker att fastslå att det finns stora kontroverser och skiljaktigheter gällande hur man skapar sig en uppfattning om normativa rekommendationer.

Då denna kapacitet är begränsad, men flera har ett behov av den, måste den *delas* på ett normativt tillfredsställande sätt. Men då utsläpp ofta, till en viss gräns, korrelerar med ekonomisk tillväxt och välfärdsnivåer, räknas utsläppsminskningar, och minskningar av exploatering av naturresurser, som en börda. Då uppstår frågan om *vem* som ska tillskrivas denna börda, och *hur stor* uppoffring eller börda denne agent förväntas ta på sig. Det finns olika principer som diskuteras inom klimaträttvisa, som exempelvis 'förorenaren betalar' (polluter pays-principle), eller att den med förmåga ska bära bördan, eller att alla bör ges en lika stor del av atmosfären och följaktligen tillåtas lika stora utsläpp (Caney 2005; Shue 1999; Singer 2009).

Vad som är centralt här är emellertid att det inte är överenskommet vilken princip som ska vägleda fördelningen av sådana bördor. De olika principerna använder olika sätt för att fördela ansvar och bördor. Normativa skiljaktigheter utgör en annan form av "genomförbarhet" än den som diskuterades ovan gällande empirisk möjlighet. Att hantera sådana meningsskiljaktigheter på ett normativt tillfredsställande vis är en central aspekt av den politiska sfären. Artikel III i avhandlingen tittar närmare på denna typ av problem, och vilken roll politiska meningsskiljaktigheter kan ha, genom att relatera det till diskussioner inom normativ politisk teori.

## **Att kombinera de två dimensionerna**

Även om mål kan delas upp i en empirisk och en normativ dimension är en central del att *båda* dimensionerna måste beaktas när mål sätts. Artikel III analyserar exempelvis hur dessa dimensioner kan kombineras, och rekommenderar olika strategier om det föreligger osäkerhet gällande empiriska eller normativa påståenden. Att kombinera båda dimensionerna handlar ytterst om i vilken mån normativa krav kan appliceras i praktiskt beslutsfattande och målsättande.

Men det finns olika sätt på vilka de två dimensionerna kan relateras till varandra. Säg att det finns ett normativt krav eller värde som de flesta normativa perspektiv skulle gå med på. Ett exempel kan vara att 'utrota all världens fattigdom, överallt' – vilket också är föreslaget som det första av FN:s Hållbarhetsmål, som efter 2015 ska ersätta Millenniummålen som sattes 2000. Det kan vara svårt att empiriskt uppnå ett sådant mål, men det kan ändå vara rimligt att sätta sådana mål. Till exempel kan sådana mål utgöra ett tillstånd mot vilket man syftar att sträva, som i sin tur kan fungera som incitament för att ändra institutioner och på andra sätt utveckla de medel som behövs för att målet ska uppnås eller närmas. Men det kan till och med vara



normativt motiverat att sätta sådana mål Att sätta ett mer realistiskt mål, i stil med 'få ned fattigdomen till acceptabla nivåer' är ett väldigt annorlunda mål, som det förmodligen skulle vara svårt att motivera på ett normativt tillfredsställande sätt.

Men även om normativa principer inte med nödvändighet behöver vara helt bundna av empiriska restriktioner, måste de åtminstone relatera till dessa, av två skäl: (1) man kan inte begära att en agent ska uppnå något som är omöjligt, som principen bör implicera kan poängterar, och (2) om normativa principer inte relaterar till den empiriska världen skulle den inte ha något att vara normativ om (cf. Estlund 2014: 132). Men ett normativt krav kan ändå vara giltigt eller rimligt, även om det inte empiriskt kan uppnås – man kan förvänta sig att en agent ska försöka uppnå, eller närma sig, ett visst tillstånd. Att något inte har praktisk relevans säger inget om dess sanning, eller dess värde (jfr. Estlund 2014: 134). Men möjligheten för en normativ teori att ge råd eller vägledning kan dock säga något om på vilka sätt den kan ge rekommendationer, och hur strikta dessa restriktioner ska tolkas. Som angetts ovan kan det även finnas andra värden hos normativa teorier, som exempelvis att möjliggöra reflektion, och strukturerat resonerande kring värdefrågor, vad man bör och inte bör göra, och hur man bör leva.

I vilken måtta normativa krav och teorier ska ta praktiskt hänseende i beaktande rör ytterst vilken roll man anser att sådana teorier ska spela, och hur deras rekommendationer ska prövas. Detta är ämnet för flera av de artiklar som finns i avhandlingen, och som kort summeras nedan.

### **c) Artiklar**

Avhandlingens artiklar formar en helhet. De rör sig från moraliska skäl att sätta mål (Artikel I och II), vilka mål som kan sättas givet empirisk och/eller normativ osäkerhet (Artikel III och IV), samt hur man kan eller bör gå till väga om man lär sig att ursprungliga empiriska och/eller normativa antaganden visar sig vara fel (Artikel V och VI).

Även fast mekanismerna bakom klimatförändringar har varit välkända sedan länge, och det sedan IPCC:s första rapport 1990 är välkänt att utsläpp av växthusgaser påskyndar klimatförändringar, så görs inte tillräckligt. Snarare ökar utsläpp av växthusgaser på global nivå i högre takt än tidigare (IPCC 2014b: 6-7). Som angetts ovan menar många att skälet därtill är brister i våra normativa ramverk och teorier, som inte förmår förse oss med rimlig vägledning och motivering att handla, och att dessa följaktligen måste revideras eller påbyggas. I Artikel I analyseras två förslag på

sådana revideringar eller tillägg, från miljöfilosoferna J. Baird Callicott (2014) respektive Dale Jamieson (2014). De två filosoferna har väldigt olika förslag, men delar problematiken med befintliga teories otillräcklighet. Callicott är en *landetiker*, vilket innebär att han har ett holistiskt synsätt på etik, där det främst rör sig om att upprätthålla biotiska system, baserat på omsorg. Jamieson är mer antropocentriskt inriktad, och föreslår en portfolio av policy-svar, samt utvecklandet av gröna dygder som ödmjukhet, måttfullhet, och en respekt för natur. Det undersöks vidare huruvida deras egna förslag möjliggör sättande av mål för att hantera klimatförändringar och agera för framtida generationers fördel. Denna undersökning utgår från de tre frågor som det är rimligt att ställa alla normativa teorier som syftar att ge praktisk vägledning (se avsnitt 5b ovan). Det föreslås att deras egna förslag har blygsam möjlighet för att sätta mål, men möjliggör ett strukturerat reflekterande som kan vara till gagn för målsättande.

Artikel II bygger på samma problematik, men undersöker istället Arne Næss *djupekologiska* ramverk. Djupekologin har till stor del fallit i träda, men har tidigare varit en betydelsefull ekocentrisk teori. Det anges åtta skäl där djupekologin både är i linje med nuvarande förslag och analyser, samt hur dessa kan gagnas av ett djupekologiskt perspektiv: (1) långsiktigt perspektiv, (2) holistiskt hänsynstagande, (3) intrinsikala värden hos ekosystem, (4) måttligt störande av natur, (5) insisterande på biodiversitet, (6) anti-konsumism, (7) systematisk analys av normers struktur och behovet av grundläggande ändringar, och (8) praktisk relevans. Det är i synnerhet de två sistnämnda punkterna som är relevanta, där Næss ramverk möjliggör en analys från överhängande principer, normer och värden, som sedan specificeras alltmer för att få praktisk relevans. Enligt Næss saknades det ofta en "mellan-nivå" mellan normativa principer och praktiska policys, de sistnämnda som ofta följer samma rutinmässiga förfarande som tidigare (Næss 1989: 77). Hans analysram syftar åt att täppa till denna saknade mellan-nivå med en analys som innefattar såväl empiriska som normativa antaganden. Ytterst syftar djupekologin att *utöka*, inte *ersätta*, omsorgen till att även inkludera den icke-mänskliga världen.

Artikel III diskuterar både empirisk och normativ osäkerhet, och analyserar vilka typer av mål som kan sättas givet sådana osäkerheter. Artikel III är fokuserad på klimatanpassning i jordbrukssektorn. För att anpassa sig till klimatförändringar fordras att man beaktar många osäkerheter, av både empiriskt och normativt slag. Idealt vore det möjligt att (1) förutsäga antropogena klimatförändringar, (2) identifiera lokala miljömässiga, ekonomiska, och samhällliga konsekvenser av klimatförändringar, (3)

definiera en uppsättning åtgärder som (a) är möjliga och/eller direkt tillgängliga, vilka (b) har acceptabla utfall. Dessvärre finns det stora osäkerheter på lokal nivå både gällande (2) och (3a), samt meningsskiljaktigheter gällande (3b). En taxonomi skapas där föreslagna mål analyseras utefter graden av empirisk och/eller normativ osäkerhet. Föreslagna mål kan alltså antingen vara: (a) sannolika att uppnå, men inte överenskommet gällande dess normativa status eller värde, (b) osannolika att uppnå, men överenskommet gällande dess normativa status eller värde, eller (c) varken sannolikt att uppnå, eller överenskommet gällande dess normativa status eller värde. Det föreslås även strategier för att hantera föreslagna mål baserat på denna taxonomi. Ett mål i kategori (a) kan till exempel kräva att olika perspektiv analyseras och vägs mot varandra, för att utvärdera rimlighet. Dock kan inte en sådan analys pågå alltför länge, och målet kan behöva justeras utefter vad som är empiriskt möjligt. Föreslagna mål i kategori (b) kan ha en funktion av att utveckla medel för att bli uppnått, men kan samtidigt ha en viktig funktion såtillvida att det kan fungera som ett eftersträvansvärt tillstånd, eller ett tillstånd som kan användas för att bedöma nuvarande tillstånd, även om det inte är uppnåbart. Det sistnämnda är en traditionell funktion för normativa teorier och ståndpunkter. Slutligen, föreslagna mål i kategori (c) är de som är mest fjärran att implementera, och bör beakta åtgärder för både kategori (a) och (b)-mål.

Artikel IV hörnsammar också osäkerhet vid målsättande med långa tidsramar. I synnerhet två olika osäkerheter: ändrade omkringliggande villkor för målpuppfyllelse, och vad vi vet om sådana förändringar. Artikeln kritiserar möjliga strategier för att hantera målsättande med långa tidsramar och höga grader av osäkerhet: att sätta korttidsmål, att skjuta upp målsättande, samt att sätta utopiska mål. En form av mål föreslås – 'försiktiga utopier' – som inte är helt bundna av vad man för tillfället är relativt säker på att man kan uppnå, men inte heller lika tillåtande som helt utopiska mål. Försiktigt utopiska mål är troligen, men inte säkert, uppnåbara och önskvärdheten kommer bestå, men är även öppet för framtida justeringar som en följd av förändringar i värderingar och/eller omständigheter.

Som angetts i Artikel IV kan det finnas skäl att revidera och möjligen omformulera sådana mål. Detta är ämnet för Artikel V och VI. Artikel V diskuterar "två graders"-målet, som blir alltmer avlägset, och ställer frågan huruvida det är rimligt att ett mål, som kan anses vara normativt skäligen att kräva, ska revideras eller omformuleras när det inte tycks vara möjligt att uppnå. Ytterst handlar artikeln om huruvida ett normativt kram förlorar sin kraft om det inte är uppnåbart. För att uppnå detta undersöker artikeln olika sätt att förstå 'genomförbarhet', och diskuterar kort "bör" implicerar

”kan”-principen, såväl som normativa krav att minska risker i samhälleligt beslutsfattande. Artikeln anser att ”bör” implicerar ”kan”-principen är rimlig, men föreslår att när det finns osäkerheter gällande hur man bildar sig en uppfattning om genomförbarhet, samt en risk för möjliga katastrofala följder, bör revideringen av normativa krav (och följaktligen de mål som de understödjer) behandlas med försiktighet. Man bör heller inte förlora den eftersträvande funktion som normativa krav som inte kan uppnås kan ha. Artikel VI, slutligen, tar fasta på att man kan ha fel gällande antaganden om uppnåbarhet/genomförbarhet och/eller önskvärdhet. Även den mest samvetsgranna målsättaren kan ha felaktiga uppfattningar, missförstått information, eller helt enkelt ha fel. Dock är det kostsamt att revidera och omformulera mål, och tvivel på genomförbarhet eller önskvärdhet måste vara rättfärdigat. Genom att applicera miljöpragmatism (Norton 2005) undersöks frågan om rimligt tvivel. Det finns åtminstone två olika situationer i vilka tvivel kan vara rättfärdigat: (a) när man observerar ett misslyckande, eller (b) när andra synpunkter som avviker från ens egen gällande antingen empiriska eller normativa påståenden tycks rimliga. Dock har dessa situationer begränsad nytta i planering för hållbar utveckling och gällande klimatförändringar. Istället föreslås en regel som beaktar både källan och styrkan till tvivlet, samt mot vilket eller vilka mål i en mål-medel-hierarki som tvivlet riktar sig mot. Mål som är högre upp i kedjan kräver högre grad av tvivel, och mer säkra källor, som till exempel källor från expertis eller andras erfarenheter. Dock måste aktören ha någon form av möjlighet att göra en bedömning gällande relevansen hos både expertis och andras erfarenheter.

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