

Arguments from Need in Natural Resource Debates

ESPEN DYRNES STABELL

Department of Philosophy and Religious Studies

Norwegian University of Science and Technology (NTNU) Dragvoll, NO-7491 Trondheim,

Norway

Email: espen.d.stabell@ntnu.no

ORCID: 0000-0003-1819-8548

Abstract

With regard to any natural resource, we can ask whether we should obtain (more of) it. We may further hold that the answer to this question depends, at least in part, on whether there is a *need* in our society for the resource in question. In this paper, a framework is developed for evaluating the moral significance of arguments from need in natural resource debates. The main components of the framework are: a *harm-based* conception of morally significant needs; a *transmission principle* holding between *basic* and *derived* needs; and a bulk of considerations regarding *competing concerns*.

Introduction

With regard to any natural resource, we can ask whether we should obtain (more of) it. For instance, we may ask whether we, as a society, should seek to obtain more minerals, or more oil. Furthermore, we may hold that the answer to this question depends, at least in part, on whether there is a *need* in our society for the resource in question. We may, in other words, make the following argument:

There is a need for (more of) natural resource N

Therefore, we should seek to obtain (more of) N

Let us call arguments of this form ‘arguments from need’. Such arguments are frequently employed in debates about natural resources. For instance, it is argued that modern societies *need* certain minerals in order to develop technologies required for managing the ‘green shift’ to renewable energy sources.¹ With regard to oil, on the other hand, it is argued that the energy consumption of modern societies cannot be maintained by renewable energy sources alone, and that modern societies therefore *need* a steady supply of fossil fuels – at least until the supply can be replaced by renewable or less carbon-intensive energy sources.² These arguments, it can be held, speak in favour of trying to obtain the resources.

The rhetorical force of arguments from need is significant. Consider the statement ‘society *wants* minerals’. The force of this statement is modest, to say the least, compared to the statement that ‘society *needs* minerals’. Presumably, arguments from need have force because of the *prima facie* moral significance of such arguments. Claims about need on the behalf of some agent will often involve the implicit suggestion that there is a *moral reason* to meet the need; or even that the agent has a *moral right* to what is needed, and that someone has a *moral obligation* to provide it.³ Furthermore, needs seem to have an *objectivity* that is

¹ ‘There will be no green shift without minerals. [...] In order to reach the climate goals [as defined in the Paris agreement], we need more rather than less mining in the future’, argues Olav Hallset of Norsk Bergindustri – a branch organization for the Norwegian mining industry (<https://www.nrk.no/ytring/gruvedrift-er-nokkelen-til-en-gronn-framtid-1.14297412>; accessed November 15 2019; translated by the author; published November 17 2018).

² Chief economist Fatih Birol of the International Energy Agency (IEA), cited in *Teknisk Ukeblad* in 2012: ‘We still need large amounts of oil to cover the energy demand. I am clear that the world needs every drop of Norwegian oil’ (<https://www.tu.no/artikler/vi-trenger-hver-eneste-drape-av-norsk-olje/236353>; accessed November 15 2019; translated by the author). With regard to coal, economist Tilak Doshi argues at *forbes.com* (07.06.2019) that there is a ‘need for coal power in Asia’ today, and that ‘the coal industry will remain essential to human flourishing long into the future’ (<https://www.forbes.com/sites/tilakdoshi/2019/06/07/in-coal-we-trust-the-need-for-coal-power-in-asia/>; accessed December 17 2019).

³ As is standard in philosophy, ‘obligation’ is understood here to be a normatively stronger notion than that of ‘reason’: one may have a reason to ϕ , but no obligation to ϕ , since there may be other reasons outweighing the

lacking in mere desires or wants. Whereas desires and wants are essentially subjective, there seems to be things that we need even if we do not desire or want them. A certain degree of good health, for instance, seems to be something I need – regardless of whether I want, desire, or prefer it. What is more, some needs seem to be *universal*; a certain degree of good health may be something that all humans, at all times, need. Obviously, however, not all appeals to need have the same force. I may need a blue toothbrush in order to complete my collection of coloured toothbrushes. But it seems odd to suggest that this need implies a significant moral reason or obligation on the part of anyone to provide me with the toothbrush, or that it grounds a right of mine to get the toothbrush. Likewise, to use an example by Miller (2012), the need to cook pasta for eight minutes in order to make it *al dente* does not as such have any moral relevance – no matter how objective or universal it may be.

The centrality of needs to ethical and political discourse was suggested already by Aristotle (Aristotle 1976 [c. 400 BC]), and is emphasized by several contemporary authors (e.g., Frankfurt 1984, Wiggins 1998, Reader 2007, Brock 1998, Braybrooke 1987). In this paper, I examine what it takes for arguments from need to have moral significance in debates about natural resources. Which kind of claims about need, if any, should influence practical decisions regarding the obtainment of natural resources in a society? I begin by considering influential philosophical views on needs and their moral significance. On this basis, I outline a framework for evaluating arguments from needs, the main components of which are: a *harm-based* conception of morally significant needs; a *transmission principle* holding between *basic* and *derived* needs; and a bulk of considerations regarding *competing concerns*. To illustrate how the framework can be applied to a real case, I discuss a particular argument from need in the context of mineral exploitation – the case of *deep-sea mining*. On certain

reason to ϕ ; on the other hand, one cannot have an obligation to ϕ , but no reason to ϕ . When I speak of ‘*pro tanto* reasons’ in this paper, I mean reasons that may be overridden, while not being silenced or cancelled out, by stronger reasons in particular cases (see, for example, Kagan 1989).

empirical assumptions, my framework suggests that the argument that there is a morally significant need for minerals from deep-sea mining is not convincing.

Needs, Necessity and Moral Significance

The concept of ‘need’ is commonly taken to imply some form of *necessity* (Frankfurt 1984, Wiggins 1998, Reader 2007). For example, that Harry needs food implies that food is in some way necessary for Harry. I assume that this is correct. But how should we understand ‘necessity’ here? The statement ‘A is necessary for B’ can be understood metaphysically as implying the modal claim that it would be *impossible* for B to occur without A occurring. In a practical setting, however, it will often be very hard to establish whether, if some A does (or did) not occur, B cannot (could not) possibly occur. I will take a probabilistic approach to this issue, and take ‘A is necessary for B’ to mean roughly that if it is not the case that A, B will *most likely* not be the case either. (What the required degree of likelihood or probability should be, should presumably be discussed case by case. I leave the largely technical issue of specifying probabilities aside in the current discussion.)

As indicated above, an argument from need involves or implies a *claim that someone needs something*, or what can be called a *needs claim*. Needs claims are often formulated as follows: ‘X needs Y in order to Z’. (Actual claims will sometimes be elliptical, in the sense that the last part – ‘in order to Z’ – is not explicitly stated.) In this formula, which is commonly referred to as the *relational formula*, X represents the person or entity having the need; Y represents that which X needs; and Z represents the end for which X needs Y (Miller 2012). For example, I might claim that I (X) need education (Y) in order to get a decent job and hence a decent life (Z); or that the world (X) needs more oil (Y) in order to secure the well-being of the global population (Z). In accordance with the probabilistic approach

explained above, the claim that ‘X needs Y in order to Z’ will be taken to imply that if X does not get Y, X will most likely not attain Z.

That a need is *morally significant* can be understood to imply that there is moral reason to meet it, or at least not to frustrate it – where by ‘moral reason’ is meant a moral consideration counting in favour of a particular response, such as a particular act or attitude.⁴ How can we establish whether a particular need is morally significant? A prominent view is that the moral significance of a need should be understood in terms of the *harm* that results or would result from not having it met (Frankfurt 1984, Wiggins 1998). On this view – which we might call the *harm view* – need *Y* is taken to be morally significant if the fact that *Y* is not met results in harm to *X*. For instance, I need food in order not to starve. Not having this need met would harm me, insofar as starvation is harmful to me. That such harm occurs is bad and we should, from the moral perspective, avoid it when we can. Now, contrast this need to my need for a toothbrush in the example above. Not having the toothbrush would not – at least absent special circumstances⁵ – harm me in any significant way; not getting food, on the other hand, could significantly harm me. According to the harm view, this is what explains the difference in moral significance between the two needs.

If harm is a relevant factor, does it matter whether the (risk of) harm is within the control of the agent having the need? Suppose that I need shooting lessons in order to protect myself from harm in a duel in which I voluntarily participate. I could be harmed if the lessons were not provided for me, because my opponent might shoot me; however, the risk of harm is within my voluntary control: I have freely chosen to participate in the duel, and I can choose not to proceed with it. It is plausible that this retracts from the moral significance of the need, and theorists who hold a harm view therefore often operate with a condition that the harm

⁴ The concept of an ‘act’ or ‘action’ is understood broadly to include ‘inaction’ or omitting to take action.

⁵ In special circumstances, for instance if I suffered from a form of obsessive compulsive disorder, and not having the toothbrush would involve significant distress for me, not having the toothbrush might be seen to involve serious harm to me. But in normal cases, it presumably would not.

should be to a sufficient degree out of the (voluntary) control of the agent being harmed or threatened by harm (see, for example, Frankfurt 1984, Wiggins 1998). In the remainder of this text, I will for simplicity assume that the harms in question are to a sufficient degree out of the (voluntary) control of the needing agent, unless something else is indicated.⁶

Most theorists of needs seem to consider harm a relevant consideration when evaluating the moral significance of needs. However, some argue that considerations other than those having to do with the prevention of harm are relevant in the context of needs, such as the protection or promotion of human agency (Miller 2012) and autonomy (Copp 1998). In general, promoting human welfare and flourishing – including capacities for agency and autonomy – is a *good*: all else being equal, it is better in the moral sense that there is more human welfare or flourishing rather than less. Hence, promoting it is something we may have moral reason to do. On the other hand, we might hold that if people have unfulfilled needs that prevent them from living good lives or developing important capacities, this involves a form of harm. If this is correct, harm might explain the moral significance of such needs too. I will examine the harm view in more detail in the next section. First, let us consider two further issues of relevance to evaluating needs claims.

A general worry about needs is that it seems that some needs might be morally problematic to meet, even if they have moral significance in the sense explained above. Suppose, for instance, that Anna needs a gun in order to rob a liquor store and steal the money she needs for food, and that the *only* way to fulfil Anna's need for food would be to provide her with the gun. We can assume that the armed robbery will most likely result in Anna getting the money she needs. In this case, it would harm Anna not to get the gun, because it would prevent her from getting food and thereby make her starve. On the harm view, we

⁶ The criterion of non-volition is subject to some controversy (see Brock 1998, and also Miller 2012, 28-30). However, even critics recognize that the degree of volition involved affects the moral significance of needs, so that, for instance, non-volitional needs are *ceteris paribus* more significant morally than needs involving volition either in creating the need or in the possibility of getting rid of it (Brock 1998, Miller 2012).

thereby seem to have a moral reason to give her the gun. On the other hand, giving her the gun will put others at risk of harm, and this is morally problematic. So, from the moral perspective, should we provide Anna with the gun?

We can separate between having *a* or *some* reason to do something – formally speaking, to have *pro tanto* reason to ϕ – and having conclusive (or decisive, outright, or all-things-considered) reason to ϕ . In the case at hand, we can have a *pro tanto* reason to give Anna the gun. Whether we should do so, however, may depend on other moral factors, such as whether armed robbery of the liquor store would lead to significant risk of harm to others. All things considered, we may be morally *prohibited* to meet Anna’s need for food in this case, even if the need is morally significant (in the sense of morally reason-providing), if the means for doing so – giving her a gun and thereby putting others at risk of harm – is morally prohibited. In other words, we may have a *pro tanto* reason to give her the gun, but if stronger reasons count against it, we don’t have an *obligation* or an all things considered reason to do so.⁷

Next, does it make sense to speak of a *society* having needs? In some contexts, it clearly does. It makes sense, for example, to say that a society needs a legal system in order to deal with crime. But can a society have a morally significant need? There are ways to argue that societies can be harmed. One could, for instance, argue that a society is harmed by actions causing it to no longer ‘function well’. If informal norms regulating the democratic process – for example, ‘do not treat the opposition as illegitimate’ – is repeatedly violated, then this might seem to harm the political body by causing it to malfunction – without necessarily harming any particular individual.⁸

⁷ Cf. note 3 above.

⁸ Why is it bad to harm the political body? A plausible answer is that it will, eventually, be bad for individuals relying on a well-functioning society. It is not necessary in this paper to take a final stand on this issue.

On the other hand, the moral significance of societal harm can in many cases be reasonably understood in terms of the harm *individuals* may suffer from society not functioning well. The same goes, I believe, for the welfare or interests of a society; it may be understood (holistically) in terms of the interests of the society itself, but it may also be understood (individualistically) in terms of the interests of its individual members. The question of how, exactly, one should understand references to the needs of collectives such as societies is a tricky one. A detailed discussion of the issue would take us too far afield.⁹ In the following, I will focus mainly on societal or social needs that can be understood in terms of the needs of the individuals making up the collective or group – while referring to societal or social needs in the holistic sense only when this seems particularly relevant. In light of this, the question of whether a society S has a morally significant need for a natural resource N will (unless something else is indicated) be understood in the following as a question of whether some relevant set of individual members of S – we can call this set S_i – has a morally significant need for N .¹⁰

The Harm View

Let us restate the harm view as saying that a person or entity X has a morally significant need for Y if and only if the fact that Y is not met results in (or involves) harm to X . The plausibility of this view depends crucially on whether we can give an adequate account of harm, or of what it means to be harmed. In order to do this, it will be helpful to give an account of what it means for something to be in the *interest* of a person or entity. A prominent view is *comparativism*, which says that an event E is in the interest of a person or entity X if and only

⁹ There is a substantial body of literature discussing the issue of how one should understand collective interests, agency, responsibility, and related concepts. See, for example, Gilbert (1997), Pettit (2007) and Bratman (1993).

¹⁰ I leave out technical issues about how to compare, aggregate, or quantify the needs of different individuals in a group or across groups. Presumably, it is possible to do so in a manner which is adequate for at least some practical purposes.

if the fact that *E* occurs makes *X* *better off* than *X* would have been had *E* not occurred.¹¹ *E* would be *against* the interests of *X*, on the other hand, if *X* was left *worse off* by *E*. According to comparativism, that is what it means to be harmed: *X* is harmed by *E* (for instance, by a particular act) if and only if *X* is left *worse off* by *E* than *X* would have been had *E* not occurred – for short, if *X* is left worse off by *E* (see, for example, Parfit 1984).

Comparativism has merit in our context. Importantly, it makes us able to give a plausible account of why and how needs can differ in moral importance. Needs are morally important to the extent that we would be worse off if they were not fulfilled, or better off if they were. How significant they are, depends on *how much* worse off we would be if they were not fulfilled, or how much better off we would be if they were.¹² On the other hand, comparativism raises the question of what makes *X* worse or better off. Is *X* worse off if *X* *suffers* more, and better off if she suffers less? If so, what constitutes suffering? Or is *X* left worse off by being prevented from having a good life overall, or from functioning well? If so, what does it mean to live a good life or to function well? These are notoriously difficult questions. That the enterprise of defining harm involves such questions suggests that any substantive definition will be essentially contestable. Adjudicating between different substantive views of what constitutes harm or welfare is way beyond the scope of the current paper. What does this mean for the prospect of evaluating arguments from need?

I presume that what is required for such evaluation is a *list* of needs that it would be harmful not to have met, or that it would go against one's interests not to have met. It does not have to be a complete list – arguably, such lists should be open-ended (Miller 2012,

¹¹ Something can be in one's 'partial interests', while not being in one's 'overall interests'. Smoking, for example, may be pleasurable for me, and to that extent in my interest at the time of smoking the cigarette. However, it may be bad for me overall, since I may get seriously ill from smoking. When I speak of something being in someone's interests in this paper, I mean that it is in their overall interests.

¹² It should be noted that comparativism is contested, notably by philosophers defending notions of non-comparative harm (Shiffrin 1999), list accounts of harm (Harman 2009), or threshold accounts of harm (Rivera-Lopez 2009, Meyer 2004). I concede that comparativism has short-comings in some contexts, but I believe the advantages of the view when it comes to explaining the moral significance of needs outweighs the short-comings in our context.

Braybrooke 1987) – but it should contain some central items to get us going. Does this require taking a final stand on substantive views on what constitutes harm? Evaluating different views of harm involves discussing *examples* of harm. To test whether a view is sound, we can ask whether it captures *paradigmatic* cases of harm, such as that of being seriously injured by a violent attacker, or being mentally abused in childhood by one’s caretakers. A conception of harm to persons which implies that such cases do *not* involve harm, would be implausible and problematic in the practical context. So, what kind of harm is involved in these paradigmatic cases?

Harm in the attacker case would likely involve the victim being left worse off in the sense of being left in a state of severe physical pain and psychological distress as a result of the attack. In the mental abuse case, the harm could involve cognitive or emotional degradation and impaired abilities to function socially (e.g., lack of confidence in social relations). On this basis, let us say that harm to an individual can consist in the individual *being left in a state of suffering or degradation or malfunctioning* as a result of an action or event, and that the severity of the harm depends on the severity of the suffering/degradation/malfunctioning involved. Paradigmatic cases of harm to society (in the holistic sense) may be harder to find, or at least more controversial. But let us say that to the extent that societies themselves can be harmed, at least some forms of disruption of basic social institutions, such as disruptions of the legal system of a society, should be considered central cases of such harm, in that they leave the society in a worse off state.

That paradigmatic cases can involve the forms of harm mentioned so far does not mean that they cannot involve other forms of harm as well; mental abuse of a child by its caretakers, for instance, might involve an undermining of the child’s ability of rational autonomy or agency, which can be argued to count as a harm in its own right – that is, as irreducible to suffering or anything else (see, for example, Miller 2012, Copp 1998). For now,

however, let us focus on harm to individuals and assume that *in the very least*, being left in a state of suffering or degradation or malfunctioning as a result of some action or event is a relevant form of harm to individuals – a harm that may also come about through ‘harm’ to or disruption of societies. What does this imply for the moral significance of needs?

The Transmission Principle

The fact that harm to X can consist in X being left in a state of suffering or degradation or malfunctioning suggests that a certain extent of physical and mental *health* is a morally significant need.¹³ Furthermore, this need can be considered *basic* in the sense that not having it met will be *directly* harmful; not having it met, we might say, *is* a harm.¹⁴ On the other hand, some needs seem to be best understood as having ‘derived’ significance. For instance, I may need a certain amount of money over a certain period of time to get food and maintain my health. But my need for money is not a basic need, since I would not be harmed by a lack of money as such. On this basis, we can say that my need for money in this case is ‘derived’ from my (morally significant) need for food and health. I will call such needs *derived needs*.

In general, it seems that a *transmission principle* holds with regard to the moral significance of needs: if Z is a morally significant end, then the moral significance of that end is ‘transmitted’ to any Y that is needed – that is, *necessary* – for Z to obtain.¹⁵ So, for instance, if there is a morally significant need for a certain amount of food in a society, and

¹³ Arguably, health should not be understood merely in terms of an absence of suffering. But presumably, absence of or minimal suffering should be *part* of any definition of (good) health. Cf. the definition by WHO: ‘Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’ (<https://www.who.int/about/who-we-are/frequently-asked-questions>; accessed December 17 2019).

¹⁴ Health is considered a basic need by several theorists of needs, including Braybrooke (1987), Doyal and Gough (1991), and Copp (1998) (Copp ultimately reduces the list to a need for rational autonomy). Influential lists which contain health as a basic need have been proposed by, for example, OECD and the UN (see Braybrooke 1987, 33-35).

¹⁵ I borrow the term ‘transmission principle’ from the literature about instrumental reasons, where the transmission principle says (roughly) that if there is reason to pursue X , then there is reason to adopt a means M to achieve X (see, for example, Skorupski 2010, 103-104, Kiesewetter 2015).

keeping a certain amount of livestock is necessary in order to meet this need for food, then there is a morally significant (derived) need to keep that amount of livestock.

It can be objected that what is regarded as ‘necessary’ can be a contingent matter, or a matter of ‘convention’ (Braybrooke 1987, 90-110). For instance, whether there is a necessary connection between having a social life on-line and the need for psychological health or well-being may depend on how important social media is in a given culture. However, if it is a problem that determining the moral significance of needs can sometimes be a matter of convention, then this is a problem for *any* account of needs, since needs will always have this kind of relativity pertaining to ‘satisfiers’ (Doyal and Gough 1991) or ‘forms of provision’ (Braybrooke 1987) for needs.¹⁶ But how big a problem is it really? I believe it has the following significance for the normative analysis of needs: if the convention creating the need is morally problematic or undesirable, then there is reason to change or eliminate the convention; however, insofar as leaving the need unmet is harmful, there *is (pro tanto)* moral reason to meet it – even if this cannot be done without contributing to upholding the problematic convention. Suppose, for example, that a certain society *S* has become dependent on coal to provide energy necessary to keep people warm and healthy. However, burning coal is problematic, since it contributes to global warming, and continuing to burn it helps uphold the coal industry, and thereby the problematic ‘convention’ of burning coal for energy production. Can we nevertheless have a moral reason to continue to produce and burn coal in this case? According to the transmission principle, we can, insofar as burning coal is *necessary* to meet the basic need for health. However, the fact that we have this reason does not mean that we do not *also* have a strong reason to do everything that we can to change the problematic ‘convention’ (the dependence on coal) and thereby get rid of the need for coal.

¹⁶ The amount of food I need, for instance, is relative to my age, body-mass, etc. Note, however, that this does not entail that the need for food is itself relative to those circumstances; the fact that I need more food than you, does nothing to change the fact that we both have a need for food.

A related objection is that the transmission principle seems to entail that we can have moral reasons to do things that intuitively seems morally problematic. For instance, if maximizing overall happiness is a morally significant aim, as many philosophers – notably, many utilitarians – claim, and killing unhappy people would be a means to achieve this end, then the transmission principle would seem to suggest a moral reason to kill those people. At least two responses can be given to this: (1) it may be false that maximizing overall happiness is a morally significant aim, and so that we could have any such reason. I don't find that response convincing, since I believe there are good reasons to hold that maximizing overall happiness is a morally significant aim. However, (2) even if maximizing overall happiness has moral importance, this does not imply that we should always do what maximizes happiness. That would be true just in case maximizing happiness was the *only* thing we have moral reason to do. However, I have argued that we have *pro tanto* moral reason to satisfy people's basic needs, and I would argue that we have this reason independently of whether satisfying basic needs maximizes overall happiness. So at least on my account, the transmission principle does not have this problematic implication.

It might be held that operating with a necessity condition is too strict or demanding to capture what is often intended with arguments from need. In many such arguments, the word 'need' seems to be used in a looser sense: for instance, as meaning that *N* is a sufficient or effective means to attain *Z*, or to satisfy a morally significant need *Y*. It would seem odd to claim that such statements are false or meaningless, just because *N* is not strictly necessary. However, I would argue that understanding needs in this looser sense threatens the moral meaning and significance of the concept. In fact, it seems that dropping the necessity condition would imply that claims that 'X needs Y in order to Z' would no longer be logically distinct from claims that 'Y is a means for X to Z'; and this distinction *does* seem morally relevant: it seems *morally important* whether something is *necessary* in order to avoid a

certain harm, or whether it is simply one means among others to avoid the harm. Hence, I submit, a necessity condition is required for the ethical analysis of needs claims.

Note that this does not imply that we cannot have reasons to prefer, for instance, an effective means M1 to meet a morally significant need A rather than a necessary means M2 to meet a morally significant need B. For example, if means M1 has no bad side effects, while M2 has bad side effects, and A and B are equally important needs, then, *ceteris paribus*, we have reason to choose M1 over M2. In other words, I do not mean to deny that moral significance can be transmitted from a morally significant need to an effective means to meet the need; I concede that a transmission principle may hold also between needs and effective, but not necessary, means to meet them. However, as argued above, claiming that ‘Y is an effective means for X to attain Z’ is different from claiming that ‘X needs Y in order to Z’; it makes a difference whether a resource is claimed to be needed or not – even if it does not follow from the fact that a resource is needed that we should always prefer obtaining it to taking some other action.

Will any needs claim whatsoever about natural resources have moral significance on the basis of the strict concept of needs that I propose? Humans clearly need some natural resources in order to live acceptable lives. For instance, they need materials found in nature to make houses, and they need edible resources from nature in order not to starve. Consider first the need for resources to build houses. This need will depend on circumstances, such as climate. But let us suppose that S_i live in circumstances where timber and certain metals are necessary in order to provide shelter, which in turn is necessary to meet the basic need for good health. In this case, the transmission principle implies that the need for the relevant natural resources has moral significance. Hence, an argument from need will have force in this case. A similar case can be made for edible resources. To the extent that there is a necessary connection between certain edible resources and the need for health, the

transmission principle ensures the moral significance of the need for those resources. It seems clear, then, that the principle implies that some central derived needs for natural resources have moral significance.

Determining whether some Y is necessary for X (to attain Z) can, as mentioned at the beginning of the paper, be difficult in a practical setting. Recall, however, that this challenge can be met by taking a probabilistic approach. We can say, for instance, that based on the available evidence it is highly likely – say, about 95 % likely – that Paul needs n amount of food in order to preserve his health in the particular circumstances C that he finds himself in; in other words, that it is about 95 % likely that n amount of food is *necessary* for Paul in C in order to preserve his health. The problem of uncertainty in such cases needs not be graver than what it is in other forms of real life practical reasoning about urgent and complex cases. Uncertainty should not stop us from reasoning about what to do in such cases.

Evaluative Framework

Let me now try to outline a more systematic framework based on what has been maintained so far. In evaluating arguments from need, it will be helpful to begin by identifying the *subject* of the purported need – that is, the person or group that is claimed to have a need for something. Sometimes, this will quite simply be a matter of focusing on claims made by (or on the behalf of) some particular group, for instance a group of people in a particular society having reached retirement age (as defined by the laws of that society). In other cases, such as those involving a global population and future generations, things get more complicated. I will consider a case involving a global population and future generations in the section on deep-sea mining below.

Moving on to the evaluation of the needs claim made by or on the behalf of the relevant subject, we should begin by inquiring into:

Moral significance. If natural resource *N* is *necessary* in order to meet a morally significant need *Y*, such as the basic need for health, then there is – by the *transmission principle* – a morally significant (derived) need for *N*.

If *N* is not necessary to meet a morally significant (basic or derived) need, the argument from need fails. If, on the other hand, there *is* a morally significant need for *N*, this provides a *pro tanto* moral reason to (attempt to) obtain *N*. If obtaining the resource is the *only* thing we have reason to do, then that is what we *should* do. In most real cases, however, we will have reasons to do things that are incompatible or in conflict with meeting the need for *N*; for instance, there may be other morally significant needs, which cannot be (sufficiently) met if the need for *N* is to be met, due to limited financial or other resources.

In cases of conflict, whether we should meet the need for *N* – that is, whether the argument from need succeeds in establishing an all things considered or decisive reason to (attempt to) obtain *N* – depends crucially on the *strength* of the reason to meet the need for *N*. This, in turn, will depend on factors such as the *severity* of the harm that may ensue if relevant needs are not met, or the good that will result from meeting them (comparativism), as well as the *urgency* of relevant needs (Wiggins 1998). (If Peter needs food now, while Mary needs medical help in two years from now, Peter’s need is more urgent and should, all else being equal, be fulfilled first.) In sum, evaluating the force of an argument from a morally significant need will require examination of:

Competing concerns. What are the relevant competing or conflicting needs and welfare considerations? What are the relevant ‘counterclaims’ (Wiggins 1998) to the

needs claim in question? More generally: what is the significance of the need in question compared to other relevant needs, welfare concerns, or moral considerations?

Mapping out the relevant competing concerns may require empirical investigation – for instance, into what counterclaims are made, or what other needs there are that would be relevant to consider. The primary task when evaluating an argument from needs, however, is a philosophical one – namely, to inquire into *Moral significance*. Only if a needs claim has moral significance, will the question of the strength of the reason implied by it arise, and hence the need to map out relevant competing concerns. In the next section, I will evaluate a particular argument claiming that there is a need to obtain minerals from deep-sea mining. Since I will argue that the needs claim in question (most likely) lacks moral significance, empirical questions regarding competing concerns will not be acute when assessing the case.

Deep-Sea Mining

It can be argued – indeed, it has been argued – that there is a need for an increasing supply of copper and other minerals in order to manage the transition to green energy sources, since certain minerals are needed in batteries and other vital components of green technologies.¹⁷ Moreover, it has been argued that the need might be covered by minerals from *deep-sea mining*, which is the (not yet commercially established) process of retrieving minerals from the ocean floor at great depths (see, for example, Earth Economics 2015). This, it can be held, speaks in favour of conducting, or developing ways to conduct, deep-sea mining.

To be sure, this kind of argument from need can be used cynically to promote more particular interests. If the CEO of a private mining company says that her company wants to mine the ocean floor in order to meet society's need for minerals, one can be quite confident

¹⁷ See, for instance, Earth Economics (2015) and note 1 above [NRK].

that this is at best only part of the truth. However, that the argument can be used as a rhetorical device to promote self-interested goals does not imply that there is no case to be made for deep-sea mining based on an argument from need. If there *is* a morally significant need for minerals, then that may be a reason to conduct deep-sea mining – regardless of anyone’s (good or bad) intentions in arguing for it.

It is beyond the scope of this paper to examine scientifically or empirically the claim that the transition to green energy sources requires a greater supply of minerals, or the claim that this demand can be met by deep-sea mining. However, there is some reason to believe that a supply of minerals from deep-sea mining will at least *help* in making the transition by providing crucial minerals (e.g. Ecorys 2014), so let us for the sake of argument assume that this is the case. Based on the framework proposed above, does the fact that minerals can help us manage the transition to green energy sources imply that there is a morally significant need for the relevant minerals in the world today? And can this need justify conducting deep-sea mining? In other words: Is there an argument from need suggesting that we should support or have a favourable attitude towards mining operations on the ocean floor?

Let us start by identifying the subject of the purported need. Who is it that is supposed to have a need for minerals? The argument that there is a need for minerals refers to the need to make a green shift in order to mitigate the effects of climate change. If the purported need for minerals derives from the need for protection against global climate change, then – given the spatial and temporal nature of climate change and its risks – the subject of the relevant need may be taken to be the global population, including future generations.¹⁸ The question then becomes: does the global population, including future generations, have a morally significant need for minerals from deep-sea mining?

¹⁸ Non-human organisms may also be relevant subjects of need in this case, to the extent that they have needs in the morally relevant sense. I won’t discuss it here, but the possibility should be kept in mind.

We can begin the inquiry by asking whether the argument refers to a morally significant need. Not making the transition to green energy sources within a certain time frame may, according to the IPCC (Intergovernmental Panel on Climate Change), make climate change very dangerous for a lot of people – that is, more dangerous than it would be without making the transition. Island states and coastal cities may experience devastating flood caused by rising sea levels (IPCC 2014). Extreme weather events may become more frequent or more violent. Certain deadly diseases may spread more easily in already severely pressured African countries south of Sahara (IPCC 2014). Such effects from climate change threaten the needs of millions of people for food, shelter, and subsistence – needs that are necessary to fulfil in order to avoid severe harm to health.¹⁹ Protection from climate change, then, is a morally significant need.

Before we can draw a conclusion about the moral significance of the connection between obtaining minerals from deep-sea mining and the need for protection against climate change, however, we need to consider this connection more carefully. First of all, is it a *necessary* connection? It may be that the minerals can be obtained in other ways than by mining. If we need to obtain more minerals, it can be argued that we should instead intensify attempts to *recycle* minerals. It is uncertain, however, whether this can cover the demand (see, for example, Ecorys 2014). But even if the extra supply must come from new forms of mining, such as deep-sea mining, might it not be that people could have the need for protection from adverse effects of climate change met in other ways? Instead of replacing one source of energy with another, we may try to use *less* energy; that is, we may try to lower the total energy consumption of the world, and especially the rich parts of the world. Whether this is possible is largely an empirical – and presumably also a political – question. In any case, it shows that there is no *necessary* connection between obtaining minerals from mining and the

¹⁹ More on health risks related to climate change: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health> (accessed November 01 2019).

need for protection against climate change, even when a probabilistic approach to necessity is assumed: it does not seem to be the case that DSM will *most likely* be necessary to protect the global population from climate change. Hence, the transmission principle does not apply.

Mining for minerals may furthermore not be the most effective way to meet the need for protection against climate change through energy policy, since it may be better to put our efforts into recycling or reducing our energy consumption, or employ a combination of these alternatives. Finally, neither mining nor recycling are *sufficient* for meeting the need for protection against climate change, since this involves more than just acquiring minerals to manage a transition to green energy sources (IPCC 2014). On the other hand, reducing overall energy consumption may be necessary in order to reduce the risks climate change, although it does not seem sufficient (IPCC 2014). If it is necessary, however, this counts strongly in favour of this measure. Nonetheless, there may be reasons to pursue deep-sea mining in combination with this and other measures, so the matter about deep-sea mining is not thereby settled. We might, however, take the discussion so far to indicate doubt about the alleged need for minerals from deep-sea mining. Although basic needs are involved, minerals obtained from deep-sea mining do not seem necessary in order to meet those needs. Indeed, mining in the deep-sea may itself contribute substantially to global warming through massive use of fossil fuels during operations, and may threaten important ecosystem services necessary for meeting basic human needs, as well as the welfare or needs of non-human organisms residing in hydrothermal vent environments (Alcamo et al. 2003, Ecorys 2014).

May there nevertheless be an argument from need to be made based on other forms of harm or considerations of the ‘good life’? An increased supply of minerals from deep-sea mining may contribute to upholding a standard of living necessary for a ‘comfortable’ life (by western standards) – at least for present generations and those of the near future. Satisfying preferences regarding comfortable living may arguably contribute to promoting overall

welfare and hence, as noted above, be morally important. Whether there is a *need* for minerals from deep-sea mining to promote such welfare, however, depends on whether these minerals are necessary in order to maintain the desired standard of living, or to avoid harms that could result from lowering the standard. As yet, there is no evidence that they are. Furthermore, there may be strong preferences *against* deep-sea mining, for instance based on the ‘existence value’ of the threatened species and ecosystems (Stabell 2019), or on other-regarding preferences for the welfare of future generations. In sum, the claim that overall welfare would be maximized, or significant harm avoided, by obtaining minerals from deep-sea mining is highly contestable.

How to conclude? There is reason to believe that there is no necessary connection between obtaining minerals from deep-sea mining and the (derived and morally significant) need for protection against climate change. If this is correct, then it is not possible to appeal to the transmission principle to argue that obtaining minerals from deep sea mining is needed to meet the derived need for protection against climate change – which in turn implies that the argument referring to the need for protection against climate change does not succeed. Finally, there seems to be no convincing argument from need to be made based on other significant welfare considerations either. Note, however, that this would not mean that obtaining minerals from deep-sea mining cannot have value, or that there are no morally relevant reasons to obtain them. What it means is that although obtaining them might be good in some sense, the claim that there is a morally significant *need* for them is not convincing.

Conclusion

I have sketched a framework for evaluating arguments from need in natural resource debates. A key concept is the *transmission principle*, which says that if there is some morally important end *Z* – for instance, that of avoiding severe harm to persons – then any *Y* that is

necessary in order that *Z* obtains will have moral importance. The principle implies that if obtaining a resource is *necessary* in order to meet one or more *morally significant needs* – understood as needs that it would be *harmful* not to have met – then there is a *derived need* for the resource, which has moral significance ‘transmitted’ to it from the basic need.

If there is a morally significant need for a natural resource, the argument from need implies a *pro tanto* moral reason to support or have a favourable attitude toward obtaining the resource. However, whether we should, all things considered, attempt to meet a morally significant need for a particular resource, depends on further considerations – notably, how significant the need in question is compared to rivaling needs and moral concerns.

I considered the case of deep-sea mining, where an argument can be made that we need minerals from such mining in order to make the transition to green energy sources, which would help protect humans and non-humans against climate change. I maintained that the transmission principle does not seem to apply with regard to minerals from deep-sea mining, since the connection to the morally significant need for protection against climate change does not seem a necessary one; and neither does the connection to other significant forms of harm or welfare promotion. The question of whether the transmission principle applies in this case must, however, to some extent be left open due to empirical uncertainty.

I have treated societal needs mainly in terms of individual needs. Whether exploitation of ambiguities in the notion of ‘societal’ or ‘social’ needs plays a role in environmental policy arguments should be discussed further.²⁰ Finally, it should be noted that although the proposed evaluative framework is developed specifically to assess arguments in natural resource debates, it is likely that the framework will also be useful for assessing arguments from need in other contexts. In health care debates, for example, arguments from need can be given both by (or on the behalf of) patients – who might claim to need various treatments –

²⁰ I owe this observation to an anonymous reviewer for EPE.

and the health care system, who might claim that there is a need to withhold certain treatments or resources. The possibility of applying the framework in such contexts should be explored further.

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