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Degrowth: from theory to practice

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ABSTRACT

The collection of articles reviewed in this editorial presents an eclectic sample of the best contributions from the Second international conference on degrowth, exemplifying recent debates in the field and touching on different aspects of the multi-dimensional transition at stake. Moving beyond theory and the construction of the degrowth proposal, the articles in this special issue look at particular applications, new methodologies and fresh policy options. For example, social enterprises are evaluated as primer candidates for a sustainable degrowth economy in the North. Lessons are also drawn from very different parts of the world, such as Cuba's experience with an oil and commodity shock, to which it adapted through the introduction of ecological labour-intensive agriculture in urban regions.

This Special Issue approaches from a degrowth perspective important sectoral issues in agriculture, resource consumption and water. The unsustainable fuel-dependence of the Spanish agrarian sector, where the energy input for the production process is six times higher than the energy contained in finished food products, is analysed in the context of the industrialization of food production. Rather than efficiency, sufficiency (in consumption) is proposed as an organising societal principle and a call is made for stronger NGO action and coalition-building in the direction of absolute (rather than relative) consumption reduction. The obstacles to sufficiency policies are illustrated with a case-study on water in the city of Barcelona, where a growth discourse is still dominant and a source of a technological and institutional deadlock against softer, decentralized and more participatory forms of water management.

Finally, many of the contributions in this issue focus on work. The policy option of a Job Guarantee scheme is examined as a tool to decouple jobs from economic growth and fiscal policy by bringing them to the realm of political rights. This is complemented by a discussion of the social benefits of an "amateur economy" through work-sharing and a socially beneficial reduction in labour productivity. Original data from Barcelona analysed for this Special Issue shows that household activities, an essential component of a more amateur economy, have a much lower intensity of energy use than the paid-sector delivery of equivalent services, especially government and privatized caring services. Interesting research questions are identified concerning work under a degrowth trajectory, not least whether reducing paid work will be possible in an energy-scarce future. Put together, the diverse contributions of this issue show that there is a vibrant and fertile degrowth research agenda with a range of open questions to which the community of this journal has much to offer.

1. Introduction

Degrowth can generally be defined as a collective and deliberative process aimed at the equitable downscaling of the overall capacity to produce and consume and of the role of markets and commercial exchanges as a central organising principle of human lives (Schneider et al., 2010).

Following the JCP special issue published after the First international conference on degrowth in 2010, which was the first refereed scientific volume on degrowth to be published in English, the term has been emerging in many more scientific publications and political debates (see for example Special Issues (SI) on degrowth in the journals Futures 2012, Capitalism Nature Socialism 2012, Ecological Economics 2012 and in Environmental Values due in 2013). The consolidation of degrowth as an intellectual current in the literature (Bonaiuti, 2005; Taibo, 2009) has also emerged from social debates, like the one on environmental justice (Martinez-Alier, 2011). Over the last four years the discussion has matured and better definitions of degrowth are being sought (e.g. Demaria

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et al., forthcoming; Kallis, 2011). The term is now even entering the Chinese context (Xue et al., 2012).

The current SI, based on selected readings presented at the Second International Conference on Economic Degrowth for Ecological Sustainability and Social Equity exemplifies recent debates in the field while picking up the discussion from where the first SI in JCLP left it. Moving beyond general theory on the construction the degrowth proposal, this SI looks at particular methodological applications and policy options.

Despite the increasing attention for degrowth in the literature some important misconceptions about its nature and content remain. Traces of these can be found in some of the contributions to this special issue. The first one concerns the understanding of degrowth in squarely economic terms, or as aiming at a reduction of GDP (e.g. Van den Bergh, 2011). Degrowth, however, is a multidimensional concept. The ideas intertwined in its proposal have diverse roots, including anti-utilitarianism and anthropology (Flipo, 2007). In the anti-utilitarian tradition, degrowth is a critique to the central role of economic (monetary, or market-based) transactions in human relations and society (Bayon et al., 2010). The term therefore implies a broader process of changes in the political-economic organization, including the societal context (Kallis, 2011). Reduction of GDP is neither relevant, nor a measure of degrowth, for the latter can hardly be captured by a single indicator. If a GDP decline occurs in a degrowth context, it should rather be a consequence of particular societal choices, rather than a goal in itself (Schneider et al., 2010).

Another reoccurring debate concerns the relevance of degrowth in the context of a widespread fiscal austerity and unemployment especially notable in Southern Europe. While some critics would argue that some form of degrowth is taking place at the moment, the present economic shrinking is a result of an intrinsic failure of the expansionary policies fostering economic growth. In economics recession is understood as a particular short-lived phase in the process of economic growth, and a necessary stage for eliminating inefficient and non-profitable activities in order to spur further growth (Bayon et al., 2010). Sustainable degrowth can be thought as a way to avoid or leave, recessions through rethinking needs and shifting objectives away from the regime of accumulation (and exchanges) in monetary terms.

From a degrowth perspective crises can be understood as mismatches between the desire to buy, produce, build, employ and borrow and the limits to perform all these activities (Schneider, 2010). These limits can be expressed in terms of natural resources, but also in the availability of time, money, or infrastructure. One common way to leave an economic crisis is by triggering growth, often by means of removing the factors which pose limits to production and consumption. Following Keynes, crises can be postponed by having the right fiscal interventions that favour production, fostering consumption growth and restoring purchasing confidence (for a part of the population). Considering the constantly rising and upward-adaptable material aspirations (Matthey, 2010) and the ecological and biophysical limits of the planet, additional growth, however, would deepen, prolong and accelerate future crises. Assuming that we have reached the limits to growth (not only in physical terms) and noting the lack of any signs of decoupling in history and present day (Polimeni et al., 2009), the only path to avoiding future crises, while living in "prosperity" (Jackson, 2009) is through sustainable degrowth. The possible crisis on the way down can be solved by avoiding the mismatch between desires and tighter limits (in terms of resource exploitation, for example).

Reoccurring themes throughout this SI are the respective roles of technological advancement, efficiency and voluntary reduction of consumption to solving ecological and social conflicts while remaining within the biophysical constraints. While efficiency and voluntary frugality are inseparable features and futures of degrowth action and politics, these might be counter-productive if not accompanied by adjustment in the form of setting binding macro level constraints (Alcott, 2010; Daly, 1996). Setting these, however, requires a collective, or deliberative process.

One of the results of the scientific deliberations in the 2nd International conference on Degrowth in Barcelona is the notion that in highly complex societies, lasting ecological sustainability and social equity requires a combination of actions and dimensions.[1] This SI collects an eclectic sample of some of the best contributions from the conference touching different aspects of the multi-dimensional transition at stake, especially in the field of restructuring economic production and work in the context of declining energy and energetic sources.

2. In this special issue

The nine contributions of the present issue can roughly be classified in two categories. The first four contemplate on the present system for production of goods and services and raise a number of proposals for transformation in this respect, whereas the second group deals with work and the interplay between labour and a possible energetic decline.

2.1. Production and economic organization in a degrowth context

Johanisova et al. provide a think-piece on the socio-economic organization of societies heading towards sustainable degrowth. In the context of this special issue the authors propose a framework, which relates the debate on food production and distribution, work and social security from the rest of contributions with the discussion on the type of economic entities and structures needed for degrowth. Observing that the prevalence of shareholder-owned companies operating under the objective of maximizing financial returns on production is one of the major prerequisites and drivers of economic growth, the authors consider social enterprises as primer candidates for a sustainable degrowth economy. Social enterprises can be defined as the collection of co-operative movements, mutual benefit and insurance societies, foundations and various non-profit organizations whose primary goal is to serve community needs, or a broader public interest, instead of maximizing profits to later distribute among shareholders. While having some limited participation in the market, social enterprises are distinct from private or public sector organizations for having a democratic ownership structure, or a decision-making process which is a lot more inclusive than in current corporate entities.

Being less efficient in terms of generating financial returns, social enterprises generate a range of positive social externalities and therefore require non-market support, or what the authors refer to as 'non-market capital'. This can be land, finance, workspace, housing, physical equipment, knowledge, provided free of charge or at terms which are more beneficial than what market provides. The cost at which non-market capital is made accessible is based on considerations of the positive social externalities which social enterprises generate.

While many of the proposals with a degrowth narrative might require a different imaginary, and widespread (institutional) transformations, social enterprises can be observed and potentially survive in the present day. Certainly, this does not make them immune to unfair economic practices, domination, exploitation,

[1] See barcelona.degrowth.org for more information.

and corruption, nor the least to co-optation by mainstream economic practices as the authors are well aware. The development and sustainability of social enterprises in a degrowth context would thus require a number of simultaneous institutional changes, starting with the abandonment of the corporate structure as a form of productive organisation (Vatn, 2009).

In the next contribution, Iris Borowy, explores the coping strategies of the Cuban society when confronted with a prolonged economic crisis. After the fall of Soviet Union, Cuba experienced an extreme external shock in its energy inputs and commodity trade, which forced it to undergo a Special Period of adaptation to domestic economic sufficiency. Some of the elements of this shock and the adaptation that ensued resemble an extreme scenario of rapid, and externally-imposed, economic shrinking. A key strategy in Cuba has been the introduction of ecological labour-intensive agriculture in urban regions in the form of public-private partnerships, which Borowy argues has lead to a reduction of the need for fuel-intensive transportation. Another policy to cope with fuel shortages was the obligation of drivers to take hitch-hikers, sharing hence cars, and the distribution of more than one million bicycles by the state. Apart from effectively reducing fossil fuel consumption, Borowy observes that these measures have lead to a reduction of obesity and improvement of health indicators. This is an alternative narrative to the one emphasizing the negative effects of famine and malnutrition during the Cuban Special Period.

The article provides an interesting real life example of how an economy and a society can quickly organize its transition to a lower availability of non-renewable energy supplies under external pressure. While the Cuban experience is certainly not an example of sustainable degrowth in practice due to its top-down, authoritarian implementation, the question remains whether the quick sudden shift to a low-energy economy could have been evoked in a more democratic manner. Stated differently, could the widespread use of car-sharing, urban organic gardens, and investments in public health have happened so fast and efficiently in a democratic context? One might also wonder whether the relatively lower self-reported subjective well-being of Cuban citizens[2] is related to the 30% drop in the country GDP after the international trading veto, or rather a result of the limited freedom of political expression and travel. The lack of a voluntary collective engagement in the transition is evident also in the fact that the experience of Cuba was short-lived. The country got back on track with economic growth, driven by fuel-intensive, long-distance tourism and remittances. Once the hard currency was available for food imports, the local production of meat, fish, rice and vegetables has shrunk.

The article by Amate and De Molina provides a theoretical justification for the adequacy of the Cuban energy-saving practices discussed above. The authors study the total energy requirement of the Spanish agriculture food sector and find that the energy contained in finished food products is less than 6 times the energy needed for their production. Unsurprisingly, main culprit for this imbalance is the industrialization and fuel/electricity dependence of the agrarian sector, especially in terms of inputs provision and long-distance transport. The authors further show that modernising the fleet of machinery and improving the efficiency of the irrigation systems do not make much difference in terms of reducing the overall energy consumption of conventional agriculture. Associated energy savings can only achieve a 6.8% reduction in fuel/electricity consumption in the sector agriculture. The only effective solution to matching the natural resource limits of the planet could be what the authors call a structural overhaul of the agrarian organisation, or switching to a model, based on low energy-intensive organic production, promotion of local food markets and introducing public policies that discourage meat and dairy consumption. As Borowy shows, much of this has been effectively put into practice in the Cuban context, though not through a shared democratic process.

The extreme mismatch between the energy needed for satisfying the food requirements of the Spanish population and the energy content of the food itself is another demonstration that system efficiency does not imply system stability, nor system sustainability. The high energy dependence of the food production system is relevant not only for Spain, but for the majority industrialized and industrializing countries. Furthermore the incapacity of modernization and efficiency measures to reduce the energy requirements of (food) production and distribution also holds for the majority of the (productive) sectors of the economy. The policies suggested by the authors stand very much at the core of the degrowth proposal, stressing the importance of system metamorphosis through a reduction and transformation of the productive capacities.

Along the lines of the previous authors, Lorek and Fuchs defend that adjustments relying on technological solutions and a product-based sustainable consumption approaches do not suffice to foster the radical changes needed for achieving ecological sustainability. The authors demythologize the belief in the omnipotence of simple individual action, stating that consumers face serious structural constraints even when having the best of intentions. The fact that consumers sometimes report stronger ecological preferences than what their actions show seems puzzling, but can be explained with the lack of easy or socially acceptable alternatives (which are less fossil-fuels and technology intensive). The idea of sufficiency would thus need to be an organising principle of the entire society, Lorek and Fuchs conclude.

One of the biggest challenges for degrowth, the authors believe, is the so-called embeddedness of weak-sustainability principles in mainstream political vision and governance, i.e. the belief that manufacturing better quality products is sufficient for facing the present ecological and social challenges. Successful degrowth governance, rather rests on taking tough positions, which include not only capping and protecting resources but also phasing out unsustainable consumption options. Establishing the appropriate institutions for it, following the via of social cooperation together with stronger NGO positioning and coalition-building around the theme of absolute reduction of consumption, could be the first step.

Whereas the previous contributions treat consumption of physical goods and materials, the paper of Domenech et al. looks at urban water provision as a major example of unsustainable resource extraction. The growth discourse is prevalent in water management, exhibited in the dominance of centralised resource management schemes. Large-scale water infrastructures are examples of centralised management relying on pricing for resource allocation, and a vehicle for increasing water supply and demand. This paper offers an innovative approach to analysing degrowth. Social multi-criteria evaluation (SMCE), a well-known analytical approach in support of decision-making, is used for the first time to structure the problem of assessing the desirability of degrowth alternatives. The exercise focuses on the metropolitan area of Barcelona, an important conurbation of southern Europe marked by water scarcity and rising water demands. Domenech et al. make use of SMCE to systematise information about technical and institutional considerations in the appraisal of non-conventional water sources, such as rainwater harvesting, and compare conventional (growth-driven) with alternative (degrowth-inspired) water supply technologies. Non-conventional

[2] Veenhoven, R. World Database of Happiness, Erasmus University Rotterdam, Assessed on (date) at: http://worlddatabaseofhappiness.eur.nl, Last revision: 2012-5-1.

water sources are superior in many dimensions, not least in terms of ecological sustainability and democratic participation. In growth-oriented economies, however, conventional centralized technologies dominate for having economies of scale that lower short-term costs and raise returns. The influence of 'the growth discourse' in water management is the source of the technological deadlock and an institutional barrier to the adoption a democratic control over the hydrological cycle, Domenech et al. conclude.

2.2. Work and labour

The next round of contributions dwell on the concept of labour in the context of an approaching energetic decline. Degrowth is more than ever in a need of coherent proposals in the field of work. Employment has been frequently put forward as a major challenge to the degrowth narrative (consider the vision of degrowth as generating unemployment). The common conception of growth as an imperative for full employment, however, needs to be addressed and challenged first. The Job Guarantee (JG) mechanism, proposed by Blake Alcott, implies decoupling jobs from economic growth and fiscal policy by bringing them to the realm of political rights. Herein JG is meant as a permanent supplement to private employment that ensures job security, rather than an anti-crisis measure. Reviewing the relevant literature and some real-world experiences, the author discusses the different roles for guaranteed jobs and guaranteed income, stressing that price and inflation policy should not be conflated.

Here the discussion on job sharing[3] as complementary to job guarantee can be considered relevant. While the first may be difficult to apply to all sectors (not all jobs are easily shareable), a job guarantee mechanism might be pricy and characterized by high administrative cost (in terms of matching skills with placements). Work-sharing, on the other hand, has a smaller financial burden for it implies salary-sharing and the introduction of a fixed ratio between the maximum and minimum salary levels. Job-sharing can also be seen as a particular application of the job-guarantee mechanism.

Guaranteed job security could well be associated with a fall in the productivity of labour, Alcott admits, which need not be problematic considering the social character of work, being both a wish and a duty. This is a central discussion in our next contribution. Quoting recent studies which demonstrate a shift in preferences for having more time for leisure than for consumption, the position paper by Jorgen Norgard makes a plea for a targeted reduction in labour productivity and work-sharing in both the professional and "amateur" economy. The latter he defines as unpaid, voluntary and driven by personal motivation. The proposal entails moving production and working time away from capital-intensive professional sectors to the labour-intensive and high social value amateur economy as a way to secure employment.

Increasing the share of free time spent on leisure and 'amateur' activities could function well as long as their energy intensity is kept low. Furthermore while reducing labour productivity might be relevant for degrowth, increasing the share of work performed in the amateur economy can have two opposite effects. Spending more time on a particular task in a less resource-intensive way could be mundane and unattractive. On the other hand, if labour becomes less productive in physical output, but 'more productive' in meaningfulness, conviviality and autonomy, the net effect of the change could be positive for well-being and energy savings, especially considering that production in absolute terms would decrease with degrowth. Blake Alcott's position paper on the pros and cons of job guarantee mechanism can be considered an input to such a transition.

The article by D'Alisa and Cattaneo complements the contributions on work stressing its social character and elaborating its definition. Their research emphasises the importance of household activities to maintain the quality of life and of unpaid work (UW), which according to feminist scholars remains unrecognised and undervalued. The authors show that the share of women in the total sum of work (paid and unpaid) is still disproportionally large. The logic of care work in non-market contexts, D'Alisa and Cattaneo comment, is not based on the rational objective of maximizing personal benefits, and must therefore be understood and analysed in an anti-utilitarian perspective which might even question its monetization.

The contribution also demonstrates that the intensity of energy use in household activities is several orders of magnitude lower than the paid-sector delivery of the same services, especially in government and caring services. The lower exosomatic metabolic rate of services from UW in relation to those provided by the labour market is demonstrated quantitatively. Considering the increasing energy demand associated with the growing number of single households, the article also questions the marketing dream of buying "convenience consumption" such as microwaves ovens, washers and driers, food processors, disposable napkins and purchasing childcare to reduce the time for UW. Co-housing and renovations which create shareable space and appliances are some of the possible ways the authors recommend for bringing energetic demand down (Lietaert, 2010).

The evidence and discussion presented by D'Alisa and Cattaneo implies that an energy crisis might not be impossible to overcome in a non-formal, or household work, perspective. On the one hand, more people could shift towards working in households, understood as small informal communities or social enterprises. On the other hand, the nature of labour might change: when performed in the 'informal sector' work could become more convivial, more self-managed, and thus more appealing. The proposal is closely related to the plea for more "Cinderella economy" of Tim Jackson (2009), consisting of the currently underestimated and largely ignored informal, social and community enterprises, farmers' markets, community gardens and various services, which are not necessary most productive and contributing to economic growth, but certainly rich in employment/income possibilities and social value.

Finally, dealing with issues of energy and labour, Sorman and Giampietro present an innovative methodology, MUSIASEM, which facilitates an integrated, multi-scalar accounting of societal metabolism, exposing trade-offs between energy consumption, hours of human activity and economic added value. Using data from major industrialised economies Sorman and Giampietro show how cheap energy has fueled productivity growth. They argue that further economic growth is unsustainable given the exhaustion of sources with sufficiently high energy return on energy investment. While an economic downscale is inevitable, the authors are sceptical that it can come through an organized social process, or by voluntary simplicity. Institutional responses increase transaction costs, while state services depend on the same diminishing energy surplus, they argue. The best we can do as a society is to adapt to the new conditions, not in a pre-fixed, planned manner, but through a processes of flexible experimentation in the spirit of "post-normal science". The authors argue that diminishing energy supplies would actually require an increasing amount of work, rather than a decreasing working week, as suggested by various proponents of degrowth.

[3] Job-sharing or work-sharing is a form of employment where two (or more) people hold part- or reduced-time job normally undertaken by one person working full time. The arrangement implies that parties share the associated pay.

In his commentary on their article, Kallis provides a detailed response to their position. Taking the literal implications of the term, one could easily perceive degrowth as a naïve idea, rooted in the call for voluntary simplicity. The degrowth proposal, however, goes much further as also suggested by the rest of the contributions in this SI. Degrowth implies a web of micro and macro level transformations, introduced in a way so that rebound effects associated with both efficiency and sufficiency measures are prevented and "debound" action encouraged (Schneider, 2010). Kallis argues that the metabolic analysis of Sorman and Giampietro illuminates interesting trade-offs between energy and work, but does not make a definite case for the impossibility of less work with less energy. He considers Sorman and Giampietro's pessimism on the possibility of an organized collective action to manage a "prosperous way down" as not grounded by evidence.

The SI contributions on the topic of work address the possible alternatives to the energy work trade-offs raised by Sorman and Giampietro. Firstly, considering that degrowth implies a simultaneous combination of a reduction of production capacities and an increase in the simplicity of serving material needs and living, it is difficult to predict which of the two effects would dominate, or otherwise how the total amount of working hours would change. Reduction of paid working hours can either come about as a result of social deliberation, or of an energy crisis leading to more austerity and a decline in the job placements associated with the production of objects which are no longer in demand. Moreover, Sorman and Giampietro consider the formal working sector only. Yet, a decrease in the number of paid working hours might imply an increase in non-formal, unpaid, low-productive working time in the household and community. In the long run an energetic decline might require more work, but certainly not more formal sector work. In a degrowth society, work is expected to become more self-managed, more care- (rather than energy) intensive, and resulting in the creation of more durable goods.

Sorman and Giampietro apply complex theory to the analysis of the present system only. Yet, we can also imagine a system of solutions that is adaptive and combining strategies in a multilevel complex way. While a solution on a single level could lead to a rebound, a combination of strategies (such as opposition, alternatives building, and research) and dimensions (financial, natural resources, infrastructure, work, institutions, etc.) can draw a sustaining and sustainable path for transformation. This does not mean the establishment and imposition of an optimal top-down track for a macro-level reduction of natural resource use. Degrowth is conceived and elaborated as subject to and a result of continuous social deliberation. Whether society is capable of revising its trend of energy consumption and market-dependency and thus to democratically auto-reconstruct itself in a multidimensional way is certainly debatable, but need not be excluded as a possibility.

3. Final remarks

The degrowth narrative has emerged as a response to the urgency of the present physical, ecological, social and economic limits in a complex society. Certainly when not upheld by the rest of society and fostered by the right institutions, individual voluntary frugality might imply sacrifices. To avoid this, the degrowth proposal needs to integrate two approaches. One requires reducing the level of social and economic complexity and the other one – managing it and influencing the societal context. The first one requires re-localization of production, reduction of intermediaries, decreasing the number of appliances and volume of goods used or consumed per household, introduction of simpler technologies, etc. The second one involves adaptive and widespread macro-level measures which respond to the existing complexity and therefore: regulation of advertising, legal facilitation of work-sharing, establishing non-tradable caps on the extraction of natural resources, replicating the "Yasuni" example[4] of leaving resources underground, redirecting investment away from infrastructure in fast and car-based modes of transport to slow-mode ones, strengthening social and ecological standards.

In this context, the first round of contributions relate a little more to the strategy of reducing complexity, while the second group of papers dwells more on managing it, and creating the right institutional and social context which allows for the organic scaling up of positive experiences. One of the threads which links many of the contributions is the unexplored potential of informal work, either household, community, amateur or social-enterprise-based, in the context of declining energy supplies, striving for 'deeper' democracies and 'thinner' presence of commercial exchanges in human relations. Assuming society is capable of managing with less paid work and more meaningful unpaid work, the proposals for job guarantee and job-sharing could cancel out the high level of unemployment associated with the present level economic downturn.

On a final note, some critics would argue that the degrowth debate in the context of academia is rather normative. Staying within the realm of the politically feasible or refusing to explore and imagine potential degrowth tracks for the economy and society, however, cannot be considered neutral, nor merely analytical. It is also a strong normative stance to assume that growth is sustainable and desirable ad infinitum. One of the common responses to the degrowth proposal is "I would be in favour, but the idea cannot be presented to the rest of the society or to politicians". The concept of sustainable degrowth has not been seriously considered or embraced by politicians, not even mainstream environmental NGOs, because many people find taboo to discuss it openly, even while agreeing with many of the ideas behind it, not least the impossibility and unsustainability of eternal economic growth. Degrowth, however, the way we understand it is an open invitation for debate and action, an invitation to think and act outside of the box. It is rooted in a broad and participatory social discussion about alternatives to the current unsustainable economy and on a profound understanding and preoccupation about the existing social and physical limits. The current special issue makes a tour through some of these tracks of the debate, especially in the field of work and provides some reflections for the design of social enterprises, water distribution and food production systems showing that the willingness to imagine, participate and experiment is the first stone on the path towards lasting ecological sustainability and social equity.

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[4] The example is taken from Ecuador, where a proposal for leaving oil underground in territory of high cultural and environmental value has been worked on for the last ten years. Follow updates regarding the initiative (in Spanish) here: www.accionecologica.org/petroleo/yasuni.

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