

# Can capitalism go green?

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**Can one save the planet and still be a capitalist? For H el ene Tordjman, the answer is "no." To save nature, capitalism must be abandoned. Not an easy task!**

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  propos de : H el ene Tordjman, *La croissance verte contre la nature. Critique de l' cologie marchande* (Green Growth vs. Nature: Critique of Commercial Ecology), La D couverte 2021. 352 p., 22  .

During a graduation ceremony in May 2022, students at AgroParisTech, made a call, in view of the impending environmental catastrophe, "to desert." By "desert," they meant a refusal to participate in the world they were about to enter--that of agro-industrial corporations--despite the fact that the "challenge of the ecological transition" and tools for "addressing" it were considered over the course of their education. In an excerpt that was widely discussed in the press and on television, these young engineers maintained that the solutions they had been taught were simply *not* solutions, as they perpetuate a system that is destroying the planet with a "business as usual" attitude. As the IPCC once again sounds the alarm, the new generation is eager for radical change. Declaring that "agro-industry is waging a war against life" and that "technological development will save nothing but capitalism," these graduates concluded that they could join the battle only by leaving the system.

It is precisely this critique that H el ene Tordjman explores in her new book, which examines the impasse of technological and commercial solutions for preserving the environment. She analyzes environmental policies (relating to the climate and biodiversity), their underlying principles, and the regulations that implement these

policies. Her work belongs to the tradition of the critique of technology as well as that of the critique of capitalism. Each chapter can be read as applying a concept from one of these traditions. In an acerbic and ironic style, Tordjman constantly asks the question (which she sees as purely rhetorical): if technological capitalism is the environmental crisis' cause, can it be the solution?

## **Green imperialism: The highest stage of capitalism**

In her first chapter, Tordjman discusses the convergence of NBIC (Nanotechnologies, Biotechnologies, Information, and Cognition), which she presents as the core of the "techno-optimistic" response to climate change. NBIC is a project discussed by global elites at forums, international institutions, and major foundations. It seeks to understand the complexity of natural systems the better to master them. Innovation, in this framework, must foster the emergence of a "bioeconomy," in which growth will be "green" because limits have been placed on undesirable consequences for the biosphere. Tordjman emphasizes the hubris of these elites--notably their transhumanist aspirations--as well as their scientific optimism, since, by definition, a complex system cannot be mastered. She notes that NBIC reports fail to consider the negative consequences of such innovations and contrasts them to the concept of "*insécabilité*" coined by Jacques Ellul (a postwar French philosopher and major figure of techno-skepticism), which holds that "good" and "bad" uses of technology can never be separated (as in the case of nuclear power).

The second chapter illustrates this idea by considering "biofuels." Tordjman borrows the methodology of Ivan Illich, who criticized technological achievements by pointing to their "counter-productivity." First-generation biofuels, for example, were supposed to enable the reduction of greenhouse gases by 50%. This did not occur. Fuel consumption continued to grow, as did pollution. New energies changed nothing at all. To make matters worse, second and third-generation biofuels have now been developed that are no better suited to achieving their main purpose. This situation also illustrates another key concept: the autonomy of technology. In other words, technology develops according to its own internal logic and cannot be made to follow externally imposed goals.

In *Capital*, Marx analyzed the expropriation of farmland that preceded the development of industrial capitalism, during the so-called enclosure movement in

seventeenth-century England. At present, scientific and technological progress makes it possible to extend this process to life itself, which had hitherto remained immune to commercial rationality. Thanks to the patenting of genetic resources, private entities can own living beings as if they had invented them.

The third chapter provides evidence of this trend since the American Supreme Court's *Diamond vs. Chakrabarty* decision in the 1980s, which gave an individual intellectual property rights over a bacterium that had been modified to clean up oil spills. Following this precedent, the trend towards the privatization of living things accelerated throughout the world. Today, even genetic sequences that have just been described, and not even modified, can become a private entity's intellectual property. In theory, not a single genetic sequence is protected from becoming a company's private property. Technology advances, and the law follows. The law thus finds itself in lockstep with neoliberal hegemony, which ensures fair competition between global economic actors--though at democracy's expense. The same movement that is contributing to the enclosure of living things is also bringing about the "enclosure of political space" (in the words of the American legal scholar Peter K. Yu, an intellectual property specialist), ensuring that countries "are no longer free to choose the rules they want." This is the case even when technological solutions do not result in progress. For instance, patenting makes it necessary to homogenize species, which weakens their resiliency: a new parasite can easily spread when, due to a lack of variability, there are no resistant individuals. This was notoriously the case in nineteenth-century Ireland, when a single potato variety brought about by fledgling globalization and the spread of mildew destroyed crops and subjected millions of Irish people to famine.

## **The impasse of techno-capitalism's good intentions**

Yet these efforts have been undertaken to account for nature--there is indeed a "Convention on Biological Diversity"--and to reintegrate long-term considerations into capitalist rationality. Tordjman deals with this theme in chapters 4 and 5, respectively devoted to the concepts of "natural capital" and the "ecosystem service," which are symptomatic of the "financialization of minds" that has been underway since the 1980s. These concepts were coined by Robert Costanza, the Club of Rome economist who has estimated the value of global natural capital by calculating what it would cost to rebuild or replace it, and by asking actors what they would pay for particular services (thus forests are capital, while a walk is a service). This is typical of so-called "weak"

approaches to sustainability, which assume that every kind of capital (in this case, nature and technology) can replace every other indefinitely. Tordjman concludes that such "market environmentalism" is condemned to failure because of its unrealistic, anthropocentric, and utilitarian biases, which divide nature into separate functions rather than viewing it holistically. Divvied up in this way, nature becomes "fictitious merchandise," in Karl Polanyi's sense, once it has been defined, monetized, and valorized. Despite the refined approach of the 2005 Millenium Ecosystem Assessment, under the aegis of the United Nations, these results are unsuitable for enlightened decision-making. Moreover, the implementation of concrete mechanisms--for example, the principle that the destruction of one wet area should be compensated by the preservation of another--requires an absurd bureaucracy to establish such equivalencies. Despite all the theoretical and institutional resources that have been deployed--and perhaps due to their onerousness--nature is not being preserved.

Since the 1980s, finance has directed most investment and can bend the economy to its goals. Its power is disciplinary. Can it make the economy green? In principle, many labels ensure that investments are sustainable (such as the Dow Jones Sustainable Index, the Climate Bonds Initiative, etc.). Yet their criteria are often lax and vulnerable to greenwashing--that is, when an activity claims to be green, without bringing the environment any tangible benefit. But when standards are more demanding on paper, control capacity often is not. Outrageous humanitarian and environmental scandals pose no challenge to some labels. Furthermore, new financial products are emerging, analogous to those seen in the subprime crisis: the same mechanisms (such as credit default swaps, catastrophe bonds, and so on) minimize risk and render it obscure rather than spreading it. Tordjman clinches this point by citing the classic analyses of John Maynard Keynes and André Orléan, for whom preference for liquid assets results from the speculative and self-centered attitude of financiers who--their self-image notwithstanding--are in fact quite timid. They believe that they must constantly be able to jettison assets that reduce their portfolios' overall value. At present, this trend has reached a climax. In an age of high frequency trading, shares are owned for an average of 22 seconds. In such circumstances, who can expect science to contribute to humanity's future wellbeing? Speculation, not responsible investment, prevails.

## The only option: abolish capitalism

Tordjman shows, in short, that because it never questions the capitalist and technological framework that is leading us to disaster, the green growth paradigm can only fail in its efforts to solve the environmental crisis. Narrow calculating reason can only set limited objectives (such as the reduction of greenhouse gas emissions), even as it grapples with complex systems that inevitably respond with unpredictable emergent phenomena--which must, in turn, be addressed. Consequently, the desire to save nature by mastering it is illusory. It partakes in the same destructive hubris typical as the sorcerers' apprentice. To preserve nature, there is only one real solution: to abandon capitalism.

Yet each time Tordjman mentions this option--in this book, as well as in other public appearances--she immediately conveys her unease with the abstraction and enormity of the task. This is evident in the empty, barely sketched solution that she presents as her conclusion: an introduction to agroecology. She proposes traditional and/or natural practices that diverge from modern agronomy and abandon short-term-oriented profitability, while also making it possible to feed humanity over the long term. Generalizing this model to the economy as a whole would result in a complete reorganization of society and end capitalism. Clearly, she hopes, in this way, to avoid the charge that she is simply criticizing without proposing an alternative. But there is nothing wrong with adopting a purely critical stance and, like Marx, feeling no pressure to make "recipes for the cook-shops of the future."

Tordjman might have said more and been more precise about the "critique of commercial ecology," which is her book's subtitle and primary topic. Though she has at her disposal a wealth of information and embraces a clear theoretical tradition, Tordjman's conception of the ideology she is criticizing is regrettably narrow. We read, for example, that it is contrary to "neoclassical dogma" for the cost of activities that cause pollution to be greater than clean activities, as this amounts to a form of price control (pp. 290-291). Yet the introduction of carbon pricing, which would have this effect, is precisely the rallying cry of these very "neoclassical economists," as it makes freedom from fossil fuels a theoretical possibility. Christian Gollier explains in his book *Le Climat après la fin du mois* ("Climate after this Month's Paycheck") how carbon pricing reflecting the damage that has been done to the climate and applied without exception to all economic actors would be the least costly means for reaching the

IPCC's two degrees goal. This is one of the most widely discussed issues in environmental economics. Criticism, consequently, would have been welcome.

Finally, Tordjman adopts a radical conclusion that sits uncomfortably with her analysis. On several occasions in her book, which is meant to show the inexorable logic of technological capitalism's constant progress, she refers to "victories" against it: in the case of seeds, as when the Enlarged Board of Appeal of the European Patent Organization upheld the ban on patenting certain forms of breeding (p. 130); in financial matters, when she acknowledges that the inclusion of stakeholders made it possible to penalize Bayer-Monsanto by reducing its stock-market capitalization (p. 269). She refers to these cases yet does not link them to her conclusions. She continues to reason as if the logic of technological capitalism was not simply *a* major dynamic in contemporary society, but the *only* one. Connecting these counterexamples to her thesis would have made it possible to determine under what conditions this destructive dynamic is likely to be challenged--and to have suggested options for preserving nature here and now.

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