

“Planned Chaos”: Industrial Waste Recycling in Communist Economies

by Pierre Desrochers

Most advocates of “sustainable development” assume that traditional market incentives, such as the price system and private property rights, lead to wasteful and environmentally harmful practices. Not surprisingly, some proponents, such as bestselling authors Paul Hawken, Sim Van Der Ryn, and Stuart Cowan, have suggested that central planning might prove more effective at coordinating industrial waste recovery.¹

Substituting central planners for spontaneously evolved market transactions to increase industrial recycling is not only an old idea, but also one that failed abysmally when it was tried on a large scale in communist economies. The results, to use Ludwig von Mises’s term, was “planned chaos” on a scale that sustainable-development theorists can hardly imagine.²

By several contemporary accounts—and contrary to now-widespread belief—past entrepreneurs and industrialists did a fairly good job at creating wealth out of industrial waste.³ Nevertheless, the turn of the twentieth century saw the emergence and eventual dominance of an intellectual perspective that

attempted to substitute “rational” planning and large-scale enterprises for anarchic market competition. Accordingly, many authors indicted markets for their inherent wastefulness and environmental destruction.⁴

For example, “scientific management” theorist Frederick Winslow Taylor, a man for whom the laissez-faire economic model held no sway, wrote in 1911 that when looking at America one could not avoid seeing “our forests vanishing, our water powers going to waste, our soil being carried by floods into the sea; and the end of our coal and our iron . . . in sight.”⁵

Taylor and others ushered in the idea that the economic revolution of industrialization both enabled and required the replacement of “mere profitability” by objectively developed measures of efficiency. They declared a “war on waste” that occurred because of the failure to implement the principles of scientific management and that resulted from the anarchic and uncoordinated marketplace. It was the marketplace, they said, that brought about unnecessary duplication of productive units, the production of unnecessary goods, and the large discrepancy between supply and demand.

These efforts culminated in the early 1920s when Secretary of Commerce Herbert Hoover convinced the Federated American

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Engineering Societies to appoint a Committee on Elimination of Waste in Industry, in which Taylor's disciples occupied 11 of the 17 positions. Like many other such documents, the final committee report, *Waste in Industry*, had little to say on byproducts and focused instead on time-wasting strikes, the waste of manpower and money in unemployment, and the loss of effort and money through careless planning.

A few proponents of scientific management nonetheless addressed the issue of industrial byproducts and advocated central planning as the best way to recover them. For example, in 1918 British engineering professor Henry J. Spooner devoted about one-seventh of his 300-page book *Wealth from Waste* to byproduct recovery, concluding:

[T]he marked success attending the spasmodic and sporadic attempts that have been and are being made to collect waste articles is a sure indication of the enormous amount of wealth awaiting organised collection and treatment. The municipalities have it in their power to render great services to the State by organising a complete system, including house-to-house calls by voluntary women helpers. But nothing of real importance is likely to be done on an extensive scale until such schemes are organised throughout the country from some State department, such as the Local Government Board.⁶

Stuart Chase, an American journalist and popular writer who is often credited with coining the term "New Deal," expressed similar beliefs in his 1926 book *The Tragedy of Waste*. His rationale for advocating central planning was this:

Whenever material of any sort is burned down or thrown away, with it goes a certain number of chemical elements—oxygen, nitrogen, sulphur—in various chemical combinations, which may or may not be valuable, but which are always suspect until the chemist has reviewed them. . . . It does not pay, of

course, to save all—perhaps most—discarded material. But it pays more now than it did a generation ago, and the process is accelerating. . . . The invariable question to be answered is whether the salvage is worth the cost of conversion. The trouble is that while no must often be the individual manufacturer's answer because he cannot finance large scale renovation, the answer of the whole community is often yes.⁷

While American and Western European authors proved unable to impose the central planning of industrial-waste recycling on their countries, this approach was later adopted on a large scale in the Eastern European economies, where it proved to be an unmitigated disaster. While relatively few studies were written on the topic in English, the Hungarian-born American sociologist Zsuzsa Gille, although no fan of market economies, recently published a detailed study of the Hungarian planners' attempt to institute such a scheme in the post-war era.⁸

Planned Chaos in Socialist Hungary

Gille's main findings can be summarized as follows: The Hungarian socialist era (1948–1989) saw the emergence of an official culture that valued thriftiness and the reuse of waste. The main result of this supposedly new perspective was a number of policies designed to turn industrial waste into useful byproducts. Unfortunately, those policies failed to live up to their promises and were abandoned in recent years with the return to traditional market incentives.

The 1950s saw the creation of an elaborate hierarchical input and output quota system of waste registration, collection, distribution, and reuse. Between 1950 and 1959, 34 central regulations on the collection, storage, delivery, and price of waste materials were issued. Companies generating certain types of waste were first required to collect them and offer them for transfer to other firms in accordance with quotas. According to Gille, "Subsequent laws prescribed which wastes were to be delivered to which com-

pany, how to calculate the price of wastes, what to do with hitherto unregulated waste materials, and how much material reward could be given to those who collected wastes beyond the planned amount” (p. 206).

Waste also became a key issue around which the population was mobilized. The culmination of these campaigns was the Gazda movement, named after a metallurgical worker, Géza Gazda, who had invented a new way to reuse scrap metal. As Gille points out, however, these policies led to two unintended consequences. The first was that the reuse of waste materials required additional inputs that were in short supply. As a result, waste was piled up but not used.

Second, the policies also strengthened the tendencies of centrally planned economies toward wasteful production since they created an added incentive for workers and managers to produce with higher waste ratios. These consequences were increasingly acknowledged and led to the revocation of the waste quotas by the end of the 1950s.

The concept of waste as useful material nonetheless remained on the agenda of the central planners. According to Gille, from the mid-1970s on, waste was increasingly seen as a cost of production, and further policies, such as price increases for byproducts, monetary rewards for collection, and additional funding for re-use facilities, were put in place to cut such costs. But instead of centrally calculated waste quotas, enterprises were now free to decide which wastes they wanted to re-use, sell, treat, or dump. Gille argues that, while these programs proved successful for some potentially dangerous wastes, in the end they failed to increase the portion of secondary materials among industrial inputs.

Why Did Central Planning Fail?

The central planning of industrial-waste recycling failed abysmally. Proponents of the system no doubt would say that the Hungarians did not try hard enough or set the

wrong waste quotas. This answer does not seem plausible in light of the general failure of central planning and of similar results in other communist countries where such schemes were imposed.

A better explanation is to be found in the so-called Austrian-school critique of central planning that was elaborated by Ludwig von Mises, F. A. Hayek, and other economists who built on their insights.⁹

Rather than creating an orderly society, central planning has the opposite effect. By short-circuiting the price mechanism and imposing the necessarily limited knowledge of a few planners on a multitude of individuals, central planning destroys the capital base and creates economic randomness, which eventually brings chaos and economic regression.

Thus a rational policy of minimizing industrial waste, embracing all aspects of production and consumption, can best be pursued under free-market capitalism, in which profit-seeking entrepreneurs can compete at creating valuable resources from hitherto useless byproducts. □

1. Paul Hawken, *The Ecology of Commerce* (New York: Harper Business, 1993); Sim Van Der Ryn and Stuart Cowan, *Ecological Design* (Washington, D.C.: Island Press, 1996).

2. Ludwig von Mises, *Planned Chaos* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1947), available at www.econlib.org/library/Mises/msApp.html#Appendix.

3. For a detailed discussion of this issue, see my articles in the April, May, and June 2003 issues of *Ideas on Liberty*.

4. For a detailed history of social engineering and conservation policies during this period, see John M. Jordan, *Machine-Age Ideology: Social Engineering and American Liberalism, 1911–1939* (Chapel Hill: University of North Carolina Press, 1994), and Sulevi Riukuletho, *The Concepts of Luxury and Waste in American Radicalism, 1880–1929* (Helsinki: Finnish Academy of Sciences and Letters, 1998).

5. Frederick Winslow Taylor, *The Principles of Scientific Management* (1911), www.socsci.mcmaster.ca/~econ/ugcm/3ll3/taylor/sciman.

6. Henry J. Spooner, *Wealth from Waste: Elimination of Waste a World Problem* (Easton: Pa.: Hive Publishing Company, 1974 [1918]), p. 21.

7. Stuart Chase, *The Tragedy of Waste* (New York: Macmillan, 1925), pp. 261–62.

8. Zsuzsa Gille, “Legacy of Waste or Wasted Legacy? The End of Industrial Ecology in Post-Socialist Hungary,” *Environmental Politics*, vol. 9, no. 1, 2000, pp. 203–31.

9. For a concise summary of this line of thought, see Sanford Ikeda, *Dynamics of the Mixed Economy: Toward a Theory of Interventionism* (New York: Routledge, 1997), and the relevant texts listed in the *Austrian Study Guide* of the Ludwig von Mises Institute (www.mises.org/StudyGuideDisplay.asp?SubjID=9).