

FOREWORD BY VÁCLAV KLAUS

THE REVOLUTION
IN DEVELOPMENT
ECONOMICS

EDITED BY JAMES A. DORN,
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CAIO
INSTITUTE
Washington, D.C.

To Peter Bauer

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Library of Congress Cataloging-in-Publication Data

The revolution in development economics / edited by James A. Dorn, Steve
H. Hanke, and Alan A. Walters; foreword by Václav Klaus.

p. cm.

Includes bibliographical references and index.

ISBN 1-882577-55-8. — ISBN 1-882577-56-6

1. Development economics. 2. Economic development. 3. Free
trade. 4. Central planning. I. Dorn, James A. II. Hanke, Steve H.
III. Walters, A. A. (Alan Arthur), 1926-

HD75.R48 1998

338.9—dc21

97-53294

CIP

Printed in the United States of America.

CATO INSTITUTE
1000 Massachusetts Ave., N.W.
Washington, D.C. 20001

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9. Tribal Ownership: A Curse on Native Americans' Economic Development

Steve H. Hanke and Barney Dowdle

The Failure of Communal Ownership: The Case of Indian Reservations

There are roughly 1.5 million American Indians in the United States. Approximately half reside on or near publicly owned reservations. Indian reservations cover a total 52.5 million acres, which is about the size of Kansas. The reservations are held in trust by the Federal government and are managed by the Bureau of Indian Affairs (BIA).

Even though the reservations have broad powers of sovereign, self-governing "nations," the Federal government, through the BIA, has traditionally played a large role in all aspects of American Indian life. Indeed, the economic affairs of most tribes are micro-managed by the BIA. The BIA typically negotiates contracts, determines natural resource use, makes investment decisions, manages tribal financial records, and determines tribal employment policies. As an indicator of the government involvement in Indian affairs, consider that the Federal government spends upwards of \$3 billion annually, or almost \$2,000 per capita, on American Indians. This \$3 billion is roughly evenly split between the BIA and Indian Health Services (United States Budget, Fiscal Year 1995). In addition, there are numerous other smaller programs specifically designed to aid the Indians. Likewise, the \$3 billion figure does not include the various more general kinds of welfare payments for which the Indians are eligible.

Economic development on Indian reservations, when it occurs, is limited. (The recent gambling boom on some reservations is an

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exception.) Indian reservations resemble many less developed countries. Unemployment rates on reservations are, on average, about four times higher than the overall U.S. rate. Moreover, government make-work programs account for a great deal of the employment. Average family incomes are about 70 percent of the national average, and nearly one-third of all Indians live in poverty. Not surprisingly, American Indians suffer many of the ills that accompany poverty: high rates of alcoholism, criminality, familial instability, and general poor health. If this were not enough, corruption is widespread on reservations (*The Economist* 1989).

Indian reservations represent man-made disasters of the first order. Communal ownership and widespread government failure have provided the impetus for this sad state of affairs.

Indian Reservations and Privatization

To remedy the economic maladies that afflict Indians, the Presidential Commission on Indian Reservation Economics (United States 1984, p. 41) recommended a sweeping privatization program. The commission concluded that

extensive tribal government management and involvement in business development activity contributed to the failure of tribal enterprises. Merely separating the corporate functions of tribal enterprises from interference by tribal government and employing competent management will not achieve a privatization of tribal enterprises capable of offering profit motivation, private property ownership, nor individual freedom.

Private ownership of tribal enterprises contemplates ownership of the means of production, private management, for-profit motivation and freedom for individual Indians or groups of Indians who have or share an interest in participating in business activity on an Indian reservation. Tribes could just as easily lease tribally held assets to their members as they presently do to nonmember businesses which use their resources. Existing businesses could be sold to tribal members, or ownership transferred by way of stock transfers, rather than per capita distributions of corporate retained earnings. Employee stock participation plans could also be offered. There is no one correct approach to privatizing tribal enterprises. There are, however, many possibilities for offering individual Indians incentives. There is no difference

between a per capita payment from a tribal enterprise, a judgment fund, a mineral royalty or bonus, and a welfare distribution, where no opportunity exists for individual Indians to self-actualize or to succeed through individual effort.

The presidential commission, therefore, advocated privatizing communally owned reservation resources as a necessary means to start economic development.

Since land resources comprise a significant portion of the assets on most reservations, we will focus on these resources throughout the remainder of this chapter. The present bureaucratic arrangements for managing communal Indian lands lead to a massive amount of economic waste. For example, Indian grazing lands are typically overused, while timberlands are underused.

In the pages that follow, we present an analysis of Indian timberlands, and conclude that the privatization of the timberlands under study would increase their value by a factor of about 2.7. Consequently, the privatization of Indian lands would stimulate economic growth and go a long way toward alleviating poverty on Indian reservations.

To understand why the uneconomic use of public lands occurs, it is instructive to consider why we should expect private lands to be used in an economically efficient manner. Private owners stand to gain enhanced wealth from prudent improvements on their property, reductions in production costs, proper land use and the like. Indeed, private owners are "residual claimants" who have a strong interest in maximizing the residual profit or capital gain arising from land ownership. Public owners, by contrast, lack a "residual claim" in any meaningful sense. Consequently, we should expect public lands to be used in an uneconomic manner. Our observation is, of course, not new. Adam Smith (1776, Book V, chapter ii, part II, article I) concluded that, "The attention of the sovereign can be at best a very general and vague consideration of what is likely to contribute to the better cultivation of the greater part of his dominions. The attention of the landlord is particular and minute consideration of what is likely to be the most advantageous application of every inch of ground upon his estate."

The use of public lands is usually governed by two quite different methods. One method is the "rule of capture." Under this rule, individuals can establish private rights on publicly owned resources

by "capturing" the resources. The other method is a "bag limit rule." Under this rule, individuals can establish private rights on publicly owned resources by obtaining a "bag permit" (use permit) from the proper governmental authorities.

Public grazing lands are subject to what is called the "tragedy of the commons," a condition that has occurred many times in human history. It is characterized by overuse and a loss in land productivity because public grazing lands are subject to the "rule of capture." This tragedy would be eliminated if the land were privatized, because private owners have a residual claim on their land assets. Consequently, private owners have a strong incentive to exclude nonowners and to use grazing lands economically.

The following story illustrates the economics of the tragedy of the commons. Suppose a group of youngsters is given a free soda and straws. With the soda "owned" in common, the straws will enter the soda and each youngster will attempt to capture the maximum amount of soda as fast as possible before others can lay claim to it. The rule of capture will be at work. Consequently, the soda will be rapidly depleted. Under these rules, each youngster knows that a new soda will be depleted in the same manner as the first one. Hence, no one has an incentive to invest in another soda. The only way the soda supply can be maintained is for the youngsters to convince an outsider to replenish it.

The soda analogy reflects the fate of lands held in common ownership and managed by the rule of capture. For example, Gary D. Libecap and Ronald D. Johnson (1980) found a tragedy of the commons on the Navajo reservation, the largest in the United States. They found that common property (vague tenure) arrangements on the reservation have resulted in rapid increases in the number of sheep and goat herders. Consequently, overgrazing has occurred and the land quality has declined through a loss of palatable plant species and severe wind and water erosion. The result has been high livestock mortality, low lambing rates, poor wool production, and a fall in livestock-based income. To maintain their livestock, the Navajo have had to rely on feed-grain subsidies from the Federal government.

We now turn from grazing to timberlands. Indian timberlands, rather than being subject to the rule of capture, are subject to a timber-harvesting rule (or in some cases, a modification thereof)

called "nondeclining even flow." This harvesting rule operates like a "bag limit" and is imposed on Indian tribes by the BIA.

Nondeclining even flow requires annual timber harvests not to fall below an initially established level. With even flow, the timber-harvest rate is determined by inventory volumes and timber-growth rates. Hence it is a physical rather than an economic concept. Economic costs and demands are not part of the determination of harvest rates. Consequently, a policy of even flow results in the uneconomic underuse of timberlands.

Uneconomic use does not occur on private timberlands because individuals have residual claims on them. Private owners treat their lands as capital assets and view them as an investment or capital management problem in which capital costs (interest costs) are part of the true cost of growing timber. The nondeclining even-flow principle does not take capital costs into account. The result is that harvest ages for public timber are much too long, timber is allowed to become "overripe" in an economic sense, and too much timber is held in inventory. A corollary problem results: current output from public timberlands is too low.

The problems caused by the even-flow principle and its lack of consideration for capital carrying charges on timber inventories are most pronounced when applied to "old-growth" timber (forests that have never been cut before). In old-growth forests, growth rates range from negligible to negative. It would be economic to cut old-growth, overmature timber rapidly, and then to replant the forests. The even-flow method, however, does not allow for this type of inventory adjustment. In economic terms, it imposes excessive opportunity costs (capital carrying costs) on timberlands. By idling capital resources, the even-flow principle turns forestlands into resources roughly analogous to the Hindus' sacred cows.

If this were not bad enough, overmature forests create environmental problems as well. They are more prone to attack by insects, parasites, and disease. Aged trees tend to blow down, creating a fire hazard. Blown-down trees make it difficult for large game to traverse an old forest's floor. Also, since old forests have high, thick canopies that restrict light from reaching ground level, they contain little plant life to provide food for game animals, which, in turn, provide food for predators. Consequently, public timberlands underproduce both marketable timber and many types of environmental outputs.

The even-flow principle also creates economic instability in the regions where public ownership of timberlands is dominant. With even flow, the amount of timber marketed annually is more or less constant. Prices must, therefore, bear the burden of fluctuating demand. During periods of weak demand, prices for timberland plummet, and during periods of strong demand, prices soar.

The Pacific Northwest, a region in which public ownership accounts for about 75 percent of the timber inventories, is paying dearly for even flow (Dowdle and Hanke 1985). The even-flow policy has not allowed for an economic liquidation of overmature timber. This, in turn, has resulted in an artificial shortage of timber going to market during periods of strong demand. Moreover, even flow has caused excessive price volatility in the region. To avoid artificial shortages and price volatility, the wood-processing industry of the Pacific Northwest has been migrating to the South, where most timberlands are privately owned.

Given this dismal record, why have Indians refused to advocate privatizing publicly owned Indian lands? The major obstacle has been many Indians' perception that past efforts to privatize Indian lands—most notably the Dawes Severalty Act of 1887—were failures. Consequently, most Indians view private property as an institution that favors the white man and believe that it is not well suited to Indian culture. But the real and imagined failure of privatization under the Dawes Act had little, if anything, to do with the institution of private property per se.

The Dawes Severalty Act of 1887 and Privatization

Throughout the 19th century, Indian policymaking was characterized by simplistic diagnoses of Indian problems, easy "solutions," and stereotypes of Indians as uncivilized savages. During the early decades of the century, Indian policy was influenced primarily by missionaries who believed that the teachings of the Bible and acceptance of the Sabbath were the best means for civilizing Indians and integrating them into society.

The lack of success of the missionary approach led to the domination of policymaking by 19th-century liberals. They believed that exposing Indians to private property rights and a *laissez-faire* economic system would enable them better to adjust to a civil society. The latter approach, as well as Indian stereotypes characteristic of

the era, are well captured in the views of Merrill E. Gates, president of Amherst College and of the Lake Mohonk Conference of the Friends of the Indians. In his presidential address at the 1896 annual meeting of the conference, he observed that there was a "need of awakening in the savage Indian broader desires and ampler wants. . . . Discontent with the tepee and the starving rations of the Indian camp in winter is needed to get the Indian out of the blanket and into trousers." Moreover, he argued, these trousers needed to have "a pocket in them . . . a pocket that aches to be filled with dollars" (cited in Berkhofer 1978, p. 173).

The Dawes Severalty Act of 1887 was a product of such thinking. Most influential people thought that hard work, thrift, and a system of private property rights would encourage and enable Indians to acquire wealth and become integrated into society. The Dawes Act authorized the President to allot land on Indian reservations to individual Indians. Heads of families were to receive 160 acres, while others were to receive smaller allotments. Indians were to receive full citizenship with the land transfers. Titles were to be held in trust by the United States government for 25 years, and then the land could be freely transferred. "Surplus" land—land left over after the allotments had been made—was to be sold on the open market.

Since there were considerably more "Indian lands" than acreages that qualified for Indian allotments, almost half of the land controlled by Indians was declared "surplus" and removed from their control. Also, many Indians who qualified and received allotments sold their newly acquired lands. This further reduced lands under Indian ownership and control. In addition, and perhaps most important, Indians (as well as many white homesteaders) were not afforded common-law protections that accompany property and contracts. Property rights and contracts were often neither enforced nor protected. William T. Hagan (1956) has reported that many Indians lost their lands "through tactics that ranged from deceit and duplicity to murder."

With the passage of the Dawes Act in 1887, the land area controlled by Indians was reduced by 50 percent. Then, between 1887 and the so-called Indian New Deal of 1934, which reversed the policies set in motion by the Dawes Act, about 38 percent of the acreage that had been allocated to Indians under provisions of the act was transferred through sales and other means to non-Indians. Moreover, much of the land that the Indians retained was semiarid or desert land in

the Southwest. This, along with the fact that the average parcel awarded to an Indian was 160 acres and farm prices were declining, resulted in a great deal of Indian ownership that was not economically viable.

The experience of the Dawes Act has led Indians to distrust private ownership. However, private property had little to do with the failure of the Dawes Act. Rather, the act failed as the result of a poorly conceived Federal privatization policy and a frontier justice system that did not properly recognize and use the common law of property and contracts. In a misguided effort to ensure that they would not be exploited by private property institutions, Indians have favored public ownership. In turn, public arrangements have ensured that the Indians would misuse their lands.

Privatization and the Siletz Indians

Indian views are neither monolithic nor static, however. The Siletz Indians, for example, have endorsed privatization. In the mid-1800s, the Siletz were moved from their native lands and relocated on a 1.2 million acre reservation located on the central Oregon coast. Subsequently, most of this land was transferred from reservation status to other types of non-Indian ownership and use. By 1900, little of the original reservation was left.

In 1954, Congress formally terminated all relationships between the Federal Government and the Siletz. Remaining reservation lands were transferred to the Federal Government, and the Siletz no longer qualified for programs administered by the BIA. With the adoption of the Siletz Restoration Act of 1977, however, the relationship between the Federal Government and the Siletz was restored. Moreover, this act instructed the Secretary of the Interior to develop a plan for reestablishing a new reservation.

After the Secretary's plan was presented, Congress reestablished the Siletz Tribal Reservation in 1980. The new reservation consists of 3,628 acres of land in Lincoln County, Oregon. These lands were previously part of the public domain. Most of the area consists of scattered parcels of timberlands located two to 25 miles from Siletz, Oregon. Government Hill, which is part of the reservation and the location of Siletz Tribal Headquarters, is a 36-acre parcel located within the city limits of Siletz.

There are 12,000 acres of public-domain lands in Lincoln County, Oregon. They are similar to the lands in the existing Siletz Tribal Reservation and are scattered throughout Lincoln County in 90 separate parcels that range from 20 to 520 acres. These lands are owned by the Federal government and managed by the U.S. Bureau of Land Management (BLM).

The Siletz have proposed that the Federal government privatize its public-domain lands in Lincoln County. Under the Siletz proposal, the 12,000 acres of public-domain lands would be transferred to a private corporation established by the Siletz. The initial distribution of equity shares in this corporation would be made to members of the Siletz and could subsequently be freely exchanged.

Three aspects of this proposal merit comment. First, it is not a proposal to privatize Indian lands per se. Rather, it is a proposal to privatize public-domain lands by transferring them to a private corporation that is originally owned by members of the Siletz tribe. Second, the economics of privatizing public-domain timberlands, such as those in Lincoln County, are similar to the economics of privatizing Indian lands because the BIA imposes the same timber management rules on Indian lands as other Federal agencies impose on public-domain timberlands. Hence, the results of our benefit-cost analysis could be applied directly to the privatization of Indian lands themselves. Third, our analysis of the privatization proposal only considers whether privatizing the timberlands would generate net economic benefits. We do not consider the possible terms for a privatization transfer or whether the transfer of resources from the Federal government to the Siletz is, or is not, justified on noneconomic grounds.

A Benefit-Cost Analysis of Alternative Property Rights Arrangements

To conduct a benefit-cost analysis of privatizing public timberlands, we compute the present value of the timberlands with public ownership and the present value of the same lands with private ownership. The difference between the two values is the net benefit from establishing private property rights.

In western Oregon, public timberlands typically consist of old-growth timber. The economic problem concerns the rate at which the timber on these lands should be liquidated and the cut-over

lands converted to "second-growth" tree farms. In other words, the problem is one of moving from a "mining" operation to a "farming" operation. This type of transition characterizes the situation on the public-domain lands contained in the Siletz proposal.

To analyze the economics of the timberlands in the Siletz proposal, we use a two-step approach, which allows us to compute separately the net present value of liquidating (mining) the old-growth timber and managing a second-growth tree farm. The total net present value of the timberlands is obtained by summing the two components. The formulas and calculations are contained in the appendix to this chapter.

Table 1 contains the empirical results obtained by applying our analysis to timberlands in Western Oregon. We compare public ownership and private ownership of the same timberlands to determine whether a transfer of public-domain lands to private ownership would increase or decrease the value of the timberlands in question.

To conduct our analysis, we assume the following:

1. The initial timber stand consists of 100 acres of old-growth timber.
2. The old-growth timber volumes and soil productivity are constant across all acres.
3. The price received per million board feet (MBF) of old-growth timber is the same.
4. Annual management and administration costs are \$20 per acre for public ownership and \$7.50 per acre for private ownership. The difference is consistent with data from comparative cost studies for timber management in the United States and Europe and with cost data from studies of private versus public provision of other goods and services (Hanke 1987). Annual management and administration costs used do not include costs for the amortization of road construction and annual road maintenance. We have not included these costs because the roads on the timberlands under study are already in place. We have, therefore, assumed that there is no difference in the costs associated with roads on public land compared to private land. Our treatment is biased against private ownership to some extent because there would, no doubt, be some savings in road costs if the timberlands were privately owned. Furthermore, if we were analyzing a case in which new roads were required on timberlands,

TABLE 1
NET PRESENT VALUES FROM PUBLIC AND PRIVATE
TIMBER OWNERSHIP
(1989 DOLLARS)

Data	Public	Private
Total acres	100	100
Old-growth timber (MBF/acre)	60	60
Old-growth timber price (\$/MBF)	\$250	\$250
Cost of management (\$/acre/year)	\$20	\$7.50
Cost of planting (\$/acre)	\$250	\$125
Second-growth harvest age (years)	100	40
Second-growth harvest volume (MBF/acre)	50	30
Second-growth timber price (\$/MBF)	\$200	\$175
Discount rate (%/year)	5.5%	5.5%
<i>Calculations</i>		
A. Disaggregated (two-step) approach:		
Net present value of old growth	\$242,131	\$601,168
Net present value of second growth	(\$10,684)	\$12,226
Total net present value	\$231,447	\$613,394
B. Ratio of private to public total net present values		
		2.7:1

road costs would have to be analyzed because the public-private road cost differential would be very large and would favor private ownership.

5. The planting costs per acre are \$250 for public and \$125 for private ownership. Again, the public-private cost differential is consistent with data from comparative cost studies of private versus public supply (Hanke 1987).

6. Old-growth timber is liquidated over a 100-year period for public and a 40-year period for private ownership. These time periods are also equal to the second-growth harvest ages for public and private ownership, respectively. The longer periods under public ownership result from the fact that public timber is managed on nondeclining even-flow basis. Recall that this rule does not consider capital carrying charges on standing timber inventories. Private ownership requires that capital carrying charges be considered. Consequently, the liquidation of old-growth timber under private ownership is more rapid

than under public ownership. Moreover, second-growth harvest ages are less for private than for public ownership.

7. The second-growth harvest volume per acre is higher for public ownership than for private ownership because trees are harvested at older ages for public than for private ownership. Note that old-growth harvest volumes per acre for both private and public ownership are equal and exceed even those for second-growth public ownership because the harvest age for old-growth stands exceeds the harvest age for public second-growth timber (100 years).

8. The second-growth timber price for public ownership exceeds that for private ownership. This occurs because the quality of wood from older trees is superior to that from younger trees. Note that it also explains why the prices of old-growth timber exceed those for second-growth timber.

9. The discount rate is a real rate, i.e. adjusted for inflation.

The results show that under public ownership the net present value per 100 acres of western Oregon timberlands is \$231,447, or about \$2,314 per acre. This value can be broken down into a positive \$242,131 per 100 acres for liquidating old-growth timber and a negative \$10,684 for second-growth tree farms. Although the net present value obtained under public ownership is positive, it is deceptive because the positive net present value from liquidating old-growth timber masks the negative value from the tree farming (second-growth) operation. This uneconomic outcome (cross-subsidization) results because public harvests are too slow and costs too high.

Under private ownership, the net present value per 100 acres is \$613,394, or about \$6,134 per acre. This is broken down into a positive \$601,168 per 100 acres for liquidating old-growth timber and a positive \$12,226 for second-growth tree farms.

Private ownership is clearly superior to public ownership of timberland. Transferring ownership from public to private would add about \$3,820 per acre to the value of timberland. Under private property rights, timber is liquidated more rapidly and at a lower cost than under public ownership. This allows for a higher present value from liquidating old-growth timber and a positive present value from establishing a tree farm.

Conclusion

The transfer of public timberlands to private ownership increases their value by 165 percent. Hence, privatization of public timberlands

(and Indian timberlands, which are managed under the same rules that govern public lands) is economic. Indeed, private property rights create wealth.

The Siletz Indians' proposal to have 12,000 acres of public-domain timberlands in Lincoln County, Oregon, privatized is also economical. The value of these lands under public ownership is about \$27.8 million, whereas under private ownership the same lands would have a value of about \$73.6 million.

Indian policies in the United States are now in a state of ferment. It appears that, with the privatization proposal of the Siletz, we are witnessing, at least in some parts of "Indian Country," the acceptance of an observation made by John Maynard Keynes (1936, p. 374):

There are valuable human activities which require the motive of money-making and the environment of private wealth-ownership for their full fruition. Moreover, dangerous human proclivities can be canalized into comparatively harmless channels by the existence of opportunities for money-making and private wealth, which, if they cannot be satisfied in this way, may find their outlet in cruelty, the reckless pursuit of power and authority, and other forms of self-aggrandizement. It is better that a man should tyrannize over his bank balance than over his fellow citizens; and whilst the former is sometimes denounced as being but a means to the latter, sometimes at least it is an alternative.

Appendix: Benefit-Cost Analysis

The two-step procedure for computing the net present value of timberlands is expressed as

$$(1) \quad NPV = PV_0 + PV_s$$

where:

NPV = total net present value,

PV_0 = net present value of old growth, and

PV_s = net present value of second growth.

PV_0 is equal to the present value of net cash flows generated from liquidating old-growth (naturally endowed) timber stands over a period of T years, less management and administration costs of carrying old growth timber inventories over time.

Formally:

$$(2) \quad PV_0 = \int_0^T [R_0 - (A - ht)]e^{-it} dt$$

where:

R_0 = annual revenues from liquidating old-growth timber,

A = total annual management and administration outlays,

h = annual management and administration outlays for the acreage cut-over annually,

i = interest (discount) rate,

T = harvest age for second-growth timber, which is also equal to the time required to liquidate the old growth, and

t = time.

Equation (2) reduces to

$$(3) \quad PV_0 = (R_0 - A)(1 - e^{-iT})/i + h[1 - e^{-iT}(1 - iT)]/i^2.$$

PV_s is the present value of net cash flows generated from tree farming. The revenue portion of PV_s begins in T , while the relevant outlays for stand establishment (tree planting) and annual management and administration begin in time 0.

Formally:

$$(4) \quad PV_s = \int_T^{\infty} [R_s - (C + A)]e^{-it} dt - \int_0^T (C + ht)e^{-it} dt$$

where variables are as defined in equation (2) above, and

R_s = annual revenues from harvesting second-growth timber, and

C = annual planting (stand establishment) outlays.

Equation (4) reduces to

$$(5) \quad PV_s = [(R_s - A)/i]e^{-iT} - C/i - h[1 - e^{-iT}(1 - iT)]/i^2.$$

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