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## Speeches

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# “The Greatest Good of the Greatest Number in the Long Run”: TR, Pinchot, and the Origins of Sustainability in America

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In the mid-1890s, Gifford Pinchot, brash and patrician, brought his Yale degree, experiences abroad, and new ideas about forestlands to Washington and made his mark early. In 1896, the National Academy of Sciences launched a seven-member National Forest Commission.<sup>1</sup> Pinchot, just thirty-one years old, was the youngest on the panel and the only one not an Academy member. Yet his influence was second to none in the Commission’s Recommendation to President Grover Cleveland, urging him to make major additions to the fledgling national forest system. Cleveland went along with the idea, which would protect forestlands and assure healthy watersheds for western towns and irrigators, and on Washington’s Birthday 1897, Cleveland declared 2.5 million acres of public land as forest reserves, thereby doubling the system.<sup>2</sup> By 1898, despite his youth, Pinchot was named Chief of the Division of Forestry, located in the U.S. Department of Agriculture.<sup>3</sup>

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1. Gerald W. Williams, *The Beginning Era of Concern About Natural Resources, 1873-1905*, in *THE USDA FOREST SERVICE- THE FIRST CENTURY* (rev. Apr. 2008) available at [http://www.foresthistory.org/ASPNET/Publications/first\\_century/sec1.htm](http://www.foresthistory.org/ASPNET/Publications/first_century/sec1.htm).

2. *Id.*

3. *Id.*

This was the Progressive Era, which would stretch from 1890 to 1920 and was just then gathering steam.<sup>4</sup> The Progressives, who would soon be led by Theodore Roosevelt, believed that powerful moneyed interests had grabbed far too much and that the federal government had to be reformed to make it more expert, efficient, honest, and willing to stand up to the vested interests. Pinchot railed against the way that the public land laws allowed the acquisition of valuable federal timber land and the rampant timber theft on the remaining public lands, calling it “a gigantic and lamentable massacre of trees” and “the most rapid and extensive forest destruction ever known.”<sup>5</sup> Eliminating this kind of abuse and waste lay at the heart of the Progressive Movement.

After the inauguration of Theodore Roosevelt in 1901, Pinchot and TR became extremely close—kindred spirits—and expectations of Pinchot were high, with his own ambitions even higher. The two men began a historic campaign through sweeping executive orders that expanded the national forest system far beyond anyone’s previous imagination.<sup>6</sup> When the work was done, Pinchot, with TR’s wind in his sails, had conceived of, and put into actual practice on the ground, a new, multifaceted, and visionary way of relating to the natural world, a set of ideas and practices that a century later would provide the foundation for sustainability, as the overarching objective for modern natural resources, energy, and environmental policy and law in America.

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But at the beginning Pinchot had a problem. The immense forest set asides could benefit the country in all manner of ways if they could just be managed properly and expansively, that is, managed in accordance with Pinchot’s imagined system. Pinchot, though, in the Department of Agriculture, had no forests to manage. All the public lands, forest reserves included, were in the U.S. Department of the Interior.<sup>7</sup>

It was good to have a beloved, powerful, and outdoors-loving President on your side. How much on your side? One night they were out taking a long walk when a drenching rain hit. They decided they might as

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4. *See generally* SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890-1920 (1959).

5. GIFFORD PINCHOT, BREAKING NEW GROUND 23 (1998).

6. *See, e.g.*, SAMUEL TRASK DANA & SALLY K. FAIRFAX, FOREST AND RANGE POLICY: ITS DEVELOPMENT IN THE UNITED STATES 69–97 (1980) (calling the Roosevelt-Pinchot collaboration “the Golden Era of American Conservation history”); HAROLD K. STEEN, THE U.S. FOREST SERVICE: A HISTORY 99 (1976); TIMOTHY EGAN, THE BIG BURN 67–72 (2010).

7. THEODORE ROOSEVELT, AN AUTOBIOGRAPHY 399–400 (1913).

well get back home by taking a shortcut, which involved swimming the Potomac. How often did this kind of thing happen? When Pinchot arrived at home, Mary McCadden, his childhood nurse and housekeeper who served him for more than fifty years, took one look at him and exclaimed, “[d]renched! You’ve been out with the President.”<sup>8</sup>

And so TR marshaled forces and in time got Pinchot what he needed. In 1905, Congress enacted the Transfer Act, sending the national forests, every last acre, from Interior over to Agriculture.<sup>9</sup> Pinchot became the first man to receive the title “Chief of the Forest Service.” The pace of creating new national forests actually accelerated until 1907, when Congress, responding to howls from many outposts in the West, prohibited presidents from establishing national forests in most western states. (It should not go unmentioned that this crusade by TR, Pinchot, and their colleagues—in addition to fulfilling all manner of public policy objectives—was plain fun. The high point came, ironically, at the moment the President signed the budget, which contained the rider that he and future presidents could no longer create forest reserves in most western states.<sup>10</sup> Yes, indeed, there was cause for celebration that day, and fun, because the budget bill was signed last. Positioned just above it in the pile of documents for presidential signature were thirty eight executive orders proclaiming new national forestlands totaling sixteen million acres, an area a quarter the size the State of Colorado.)

So Pinchot would have plenty of land to work with. By the time he left office in 1910—he was too strong willed for President Taft—the national forest system held, as it does today, more than 190 million acres. That is the size of California and Montana combined, eight and one-half percent of all land in the United States of America. TR had set aside about 150 million of those acres.<sup>11</sup>

Upon the occasion of the transfer of the national forests to the Agriculture Department in 1905, Pinchot took the opportunity to put forth the philosophy that would guide the forests in their new home. It was vintage Pinchot in more ways than one: “The Pinchot Letter,”<sup>12</sup> as that classic document in conservation history is called, was presented in

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8. M. NELSON MCGEARY, *GIFFORD-PINCHOT: FORESTER-POLITICIAN* 66 (Princeton Univ. Press 1960).

9. Forest Transfer Act of 1905, ch. 288, 33 Stat. 628 (1905) (codified as amended at 16 U.S.C. § 472 (2012)).

10. Roosevelt, *supra* note 7, at 404-05.

11. CHARLES F. WILKINSON, *CROSSING THE NEXT MERIDIAN* 125 (1993).

12. U.S. DEP’T OF AGRICULTURE, FOREST SERVICE, *THE PRINCIPAL LAWS RELATING TO THE ESTABLISHMENT AND ADMINISTRATION OF THE NATIONAL FORESTS AND OTHER FOREST SERVICE ACTIVITIES* 67 (1964).

the form of a letter from Secretary of Agriculture James Wilson to Pinchot—but, ever the tactician, Pinchot wrote it. If you are going to get marching orders, do them yourself.

The Pinchot Letter reflected the value the Progressives placed on efficiency: The administration of the forests must be marked by “businesslike regulations, enforced with promptness, effectiveness, and common sense.” The Progressives’ populist strain shown through: Policy would be directed to “the little man,” not “the big man,” and for “the permanent good of the whole people.” Pinchot was a pragmatist who doubted the preservation stands of John Muir and others, and advocated that “[a]ll the resources of forest reserves are for *use*. . . .”

But the central, and most powerful, themes in the Pinchot letter are clarion calls to what we now call sustainability. In this short, one-page letter, he used the words “permanent” or “permanence” six times. “The permanence of the resources of the preserves is therefore indispensable to continued prosperity . . . always bearing in mind that the *conservative use* of these resources in no way conflicts with their permanent value.” The opening sentence of the letter directed that “all [Forest Reserve] land is to be devoted to . . . the permanent good of the whole people, and not for the temporary benefit of individuals or companies.” The last passage puts forth the most enduring words of the Pinchot Letter: “[W]here conflicting interests must be reconciled the question will always be decided from the standpoint of the greatest good of the greatest number in the long run.”

Pinchot believed in the importance of mission statements and philosophical guidance. He wrote and lectured broadly on conservation, but Pinchot was above all a man of action and was critical of his predecessor, Benjamin Fernow, for being too theoretical. He wanted to announce a visionary program and, as well, to implement it in real-world terms.<sup>13</sup>

Proud of his profession of forestry, he believed in harvesting trees but only conservatively, with an emphasis on “the long run.” During his five years as Chief, the annual harvest from the national forests stayed at 1 billion board feet.<sup>14</sup> That rate was well below what it could have been. By the 1890s, the timber frontier was shifting from the East to the Pacific. In particular, the old growth forests of the Pacific Northwest were much coveted by timber interests as evidenced by widespread fraud at the turn of the century, including the conviction of U.S. Senator John

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13. PINCHOT, *supra* note 5, at 38–39.

14. WILKINSON, *supra* note 11, at 132.

Mitchell of Oregon.<sup>15</sup> Pinchot, revered by his staff and profession from the beginning, cast a long shadow rarely seen among administrative officials. Throughout the twentieth century, and yet today, his legacy was and is regularly evoked. Due in large part to that legacy, the annual harvest from the national forests remained at that relatively low rate until the post-World War II era.

This was one of the ways that Pinchot broke from the German system that he had seen up close in his early travels as a young man. He saw much to admire in the way that the Germans had applied the basic principles of forestry to the private lands in that nation.<sup>16</sup> But those intensively managed and regulated forests, operated almost exclusively for the production of wood fiber, tended to be monocultures, single-aged and sterile.<sup>17</sup> Pinchot, aware of the need to respond to the social and natural conditions in America, insisted on management but not intensive management.

With the transfer finally a reality, Pinchot was ready to move beyond forestry. In 1906, convinced that much of the rangeland in the national forests was being badly “over grazed” and that grazing reductions were in “the best permanent good of the livestock industry,” he announced a regulatory regime for grazing on the national forests by setting fees and prescribing the number of cattle and sheep that could be grazed.<sup>18</sup> This was incendiary—the public domain had always been open for free and unregulated use by ranchers and their herds.<sup>19</sup> Now Pinchot was charging for the grazing on the forest reserves and acting with no express statutory authority, only the slender reed of the right in the Organic Act of 1897 to regulate “occupancy and use” within the forests.<sup>20</sup> Eventually the issue went to the U.S. Supreme Court. The case

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15. Jerry A. O’Callaghan, *Senator Mitchell and the Oregon Land Frauds, 1905*, 21 PAC. HIST. REV. 255, 261 (1952) (Senator Mitchell died a few months after his conviction, before his appeal could be completed).

16. Paul Warde has done a fine job of detailing the German tradition of sustained-yield forestry, tracing back to the late fifteenth century. See Paul Warde, *The Invention of Sustainability*, 8 MOD. INTELL. HIST. 153 (2011). See also Susan Jane M. Brown, *The Forest Must Come First: Gifford Pinchot’s Conservation Ethic and the Gifford Pinchot National Forest—the Ideal and the Reality*, 11 FORDHAM ENVTL. L.J. 137, 140–41 (1999).

17. See, e.g., Peter List, *The Land Ethic in American Forestry: Pinchot and Leopold*, in THE IDEA OF THE FOREST: GERMAN AND AMERICAN PERSPECTIVES ON THE CULTURE AND POLITICS OF TREES 35 (Karla L. Schultz & Kenneth S. Calhoon, eds., 1996).

18. PINCHOT, *supra* note 5, at 269.

19. See, e.g., Dana & Fairfax, *supra* note 6, at 86–89; WILLIAM VOIGHT, JR., PUBLIC GRAZING LANDS: USE AND MISUSE BY INDUSTRY AND GOVERNMENT 45–50 (1975).

20. Organic Act of 1897, ch. 2, §1, 30 Stat. 34–36 (codified at 16 U.S.C. § 551).

involved Fred Light, a respected rancher in the Roaring Fork Valley, and the Colorado State Legislature funded Light's attorneys' fees. The Court, though, upheld the grazing program, one of the very first modern natural resources regulatory regimes in America.<sup>21</sup>

In at least as long a reach as establishing regulatory authority over rangeland, Pinchot challenged industry and the states in the area of water. In 1906, while acknowledging state authority over the appropriation of water rights, he adopted regulations requiring permits for access and a fee for the use of water power.<sup>22</sup> This was the beginning of federal water-power policy and it evolved into the 1920 Federal Power Act, which Pinchot championed. Later, in his autobiography, Pinchot proclaimed that "[h]ere was the beginning of the present water-power policy."<sup>23</sup> In 1945 he authored an article in the *George Washington Law Review* in which he wrote that hydropower "is one of the most essential sources of the good life among men. . . . Here, if anywhere, public control is indispensable."<sup>24</sup>

Pinchot believed, then, in active government regulation to create the greatest good of the greatest number in the long run. He also saw the necessity to build the infrastructure of managing for sustainability. As such, he launched institutions and procedures to assure a robust scientific research capability and a practical, future-looking planning program.

When he took over as head of the landless Bureau of Forestry in 1898, the agency had only a handful of employees—Fernow had resigned because of the lack of funding for research.<sup>25</sup> But Pinchot was not to be denied. Within four years, he had established a Section of Special Investigators (scientists and technicians) with fifty-five employees and a budget of \$60,000. While the transfer had yet to be made, he arranged for on-the-ground experiences for the employees, who prepared "working plans," virtually free of charge, for private owners of timber lands.<sup>26</sup>

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21. *Light v. United States*, 31 S. Ct. 485 (1911); *United States v. Grimaud*, 31 S. Ct. 480 (1911).

22. PINCHOT, *supra* note 5, at 336.

23. *Id.*

24. Gifford Pinchot, *Long Struggle for Effective Federal Water Power Legislation*, 14 *GEO. WASH. L. REV.* 9 (1945).

25. TERRY L. WEST, *RESEARCH IN THE U.S.D.A. FOREST SERVICE: A HISTORIAN'S VIEW*, paper presented at Third Symposium on Social Science in Resource Mgmt., Tex. A&M Univ. (May 18, 1990).

26. CHARLES F. WILKINSON & H. MICHAEL ANDERSON, *LAND AND RESOURCES PLANNING IN THE NATIONAL FORESTS* 19 (1987) (citing *DIVISION OF FORESTRY, U.S.*

Then, in 1905, with the major infusion of funds that accompanied the transfer, Pinchot really hit his stride. He applied his ideas to some of the finest forests in the world, planning timber sales and installing his advances in grazing and hydropower. In 1907 he had what amounted to an epiphany while out riding horseback in Rock Creek Park in Washington. He found himself pondering what it exactly was that TR and he were trying to do. Then he hit on it:

“The forest and its relation to streams and inland navigation, to water power and flood control; to the soil and its erosion; to coal and oil and other minerals; to fish and game . . . these questions would not let [me] be . . .

. . . Suddenly the idea flashed through my head that there was a unity . . . . Here were no longer a lot of different, independent, and often antagonistic questions, each on its own separate little island, as we had been in the habit of thinking. In place of them, here was one single question with many parts. Seen in this new light, all these separate questions fitted into and made up the one great central problem of the use of the earth for the good of man.”<sup>27</sup>

Now Pinchot could see conservation—sustainability—in its fullest form. When a use of the national forests was proposed—be it a timber sale, grazing permit, road, hydro operation, or other permitted use—data must be gathered to assess the impacts of that proposed use on the land, water, soil, and wildlife. The agency can then modify the use to lessen impacts on the other resources. This was another fundamental break with the German tradition, where the term “sustained-yield” was used but was narrow, referring only to sustaining the amount of wood fiber for harvest rather than also sustaining other forest resources.

Soon after Pinchot’s horseback revelation, Raphael Zon, head of research for the Forest Service, brought forth an ambitious proposal.<sup>28</sup> The agency should create a network of experiment stations, based out in the field in all regions of the Forest Service, places where scientists could do cutting-edge work on particular landscapes and conditions, and their research could be used by Forest Service managers. Pinchot took the proposal to the President and both men embraced it. As Samuel Hays wrote in his leading history of the Progressive Era, “Conservation was

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DEP’T OF AGRICULTURE, PRACTICAL ASSISTANCE TO FARMERS, LUMBERMAN, AND OTHERS IN HANDLING FOREST LANDS 1–4 (Circular No. 21) (1898)).

27. PINCHOT, *supra* note 5, at 322.

28. Norman J. Schmaltz, *Raphael Zon: Forest Researcher*, 1 J. OF FOREST HIST. 24, 28–29 (1980).

above all a scientific movement, and its role in history arises from the implications of science and technology in modern society.”<sup>29</sup>

The first field station was founded in 1908 and located at Fort Valley, just north of Flagstaff, Arizona. One of the early, and notable, stations was the Wagon Wheel Gap Project in the Rio Grande National Forest in Colorado, where hydrologists conducted influential studies on the effect of forest conditions on stream flows; several other of the stations conducted research on water conditions.<sup>30</sup> The field-station idea grew quickly and by the 1920s evolved into a national system with twelve regional stations, each with field research stations, more than sixty units in all.<sup>31</sup> Looking back in his autobiography, Pinchot, accurately it seems, judged that “here was the beginning of intensive forest investigation in America.”<sup>32</sup>

Pinchot emphasized planning as a main tool in implementing policy to achieve the greatest good for the greatest number in the long run.<sup>33</sup> The “working plans” created by the agency for private timber lands were discontinued after the transfer and replaced by detailed plans for harvesting timber in individual national forests. The Service also developed plans for grazing districts within each forest. For both timber and grazing, emphasis was placed on protecting watersheds by preserving the ground cover and preventing soil erosion and compaction. As implemented, these planning programs reflected Pinchot’s conservation philosophy that both sound use and protection of all forest resources were compatible.<sup>34</sup>

After Pinchot’s reign, which ended in 1910 and had engendered regular outbursts from timber, grazing, and hydropower interests and their friends in Congress, the Forest Service entered into a quiet period. His policies, though, continued in place until the post-World War II era. The timber harvest remained low and the agency, especially the much-admired forest rangers, enjoyed broad public support. Inside the Forest Service, while it did not have any significant effect on policy at the time, there was something of a divide between Pinchot-style foresters and those who favored a greater timber yield and doubted the worth of the Research Branch. Thus, some saw the scientists as “harmless, but the real job was practical work in the woods. Only the nuts got involved in

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29. Hays, *supra* note 4, at 2.

30. George G. Ice & John D. Stednick, *Forest Watershed & Research in the United States*, FOREST HISTORY TODAY 16, 17–18 (Spring/Fall 2004).

31. West, *supra* note 25, at 4.

32. PINCHOT, *supra* note 5, at 309.

33. Wilkinson and Anderson, *supra* note 26, at 19-23.

34. *Id.* at 22.



establishing sample plots. . . . The attitude was that research was a good field in which to put somebody who couldn't do anything else."<sup>35</sup>

Yet independent Forest Service research was necessary to assure sustainability of all forest resources in the long run. Early on, Earl Clapp, head of the Research Branch, succeeded in establishing an organizational alignment that would later prove to be of great moment. In 1915, the Research Branch was made independent of the national forest managers and the head of the Research Branch reported directly to the Chief of the Forest Service.<sup>36</sup> The reason for this structure was a fear that forest managers would try to influence research and divert scientists away from basic research and over to matters of immediate interest to land managers.

The timber harvest rose to 4 billion board feet during World War II, but that did not signify a deep policy shift—wood products were central to military combat back then, much more so than now.<sup>37</sup> The aftermath of the War—the housing boom and westward movement—did bring an end to the quiet period in the National Forest System. The activist foresters were primed to elevate the cut to wholly new levels.

The 1952 annual meeting of the Society of American Foresters in Portland, Oregon, carrying the title, “Converting the Old-Growth Forests,” became a metaphor for the divisions over forest policy that would divide the agency and the public for half a century to come.<sup>38</sup> The premise for the meeting was how, not whether, to engineer an expedited harvest of the Pacific Northwest's old-growth forests. These ancient, big-tree spruce, fir, and redwood stands were some of the most commercially valuable forests found anywhere.<sup>39</sup> And, presenters at the Portland meeting explained, there wasn't much to lose. Fallen trees, and snags about to fall, were rampant. The standing trees, because of their age, had no or very little growth and were literally dying. Clear-cutting the veteran trees while they were still commercially valuable and replacing them with thrifty, young trees would restore the kind of growth those lands can produce. One forester described these forests as “biological deserts.”<sup>40</sup>

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35. West, *supra* note 25, at 4; *See also*, Thornton T. Munger, *Fifty Years of Forest Research in the Pacific Northwest*, 56 OR. HIST. Q. 226 (1955).

36. West, *supra* note 25, at 3; DANA & FAIRFAX, *supra* note 6, at 115.

37. STEEN, *supra* note 6, at 33.

38. Telephone interview with Professor Jerry F. Franklin, University of Washington, Feb. 16, 2014.

39. *Id.*

40. *Id.*

At the Portland meeting, many of the scientists from the Research Branch were taken aback. To them, the thick, spongy forest floors plainly had outstanding values. Salmon spawned throughout the streams and creeks in these forests. The down timber was what, over time, created the rich soils. The snags provided prime nesting and perching habitat. There were many, many plant and animal species in there. Biological deserts? Yes, maybe elk and deer hunters might say that, but otherwise it was not so.

The debate had begun between those who focused on “sustained-yield,” that is, intensive harvesting and restocking to produce net growth of wood fiber, and those who believed in sustaining all the values, including commercial wood products, in the forests.<sup>41</sup>

The conflict grew louder, and the public became broadly involved, as more and more people witnessed the effects of clear-cutting and intensive management on the national forests that were of such great importance to society in the American West. In time, Congress, the courts, and the President intervened as the cut went steadily up, reaching 10-12 billion board feet by 1960 and staying there for more than thirty years.<sup>42</sup>

One little-noticed development ended up playing a large role in achieving on-the-ground sustainability in the national forests in modern times. The Research Branch kept turning out research showing the effects of intensive management, and watchful journalists took the research public. Forest supervisors and regional supervisors made a number of attempts to have scientists fired or transferred. But they did not have line authority. The Research (or Scientific) Branch was independent. There were no firings or transfers.<sup>43</sup>

And the time came when newly-elected President Bill Clinton, fulfilling a campaign promise, came to Portland, Oregon, for a Timber Summit in early 1993. After hearing out all sides, Clinton announced broad goals for the Northwest public forestlands west of the Cascades from northern California up through Oregon and Washington, more than 20 million acres in all. They were producing half or more of the harvest from the entire National Forest system. Clinton’s objectives were very much in the TR-Pinchot mold—roll back the current high-yield timber harvest, produce a modest amount of timber from the land, and protect the many other values of these old growth forests. When it came time to

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41. Telephone interview with Professor K. Norman Johnson, Oregon State University, Jan. 31, 2014.

42. WILKINSON, *supra* note 11, at 135-53.

43. Johnson interview, *supra* note 41.

draft the comprehensive Northwest Forest Plan to accomplish that, he appointed Jack Ward Thomas, a scientist in the Research Branch, as the new Chief and they enlisted, not land managers, but sixty or more scientists from the Research Branch to develop the plan.<sup>44</sup>

The resulting Northwest Forest Plan is long and complex but one thing is sure: It is sustainability writ large. As Professor K. Norman Johnson of Oregon State University has explained, in speaking of the thirty-year progression from the 1952 Portland meeting to the Northwest Forest Plan, “the Research Branch was the intellectual backbone of the transition from sustained-yield to sustainability.”<sup>45</sup>

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Any large idea comes about, and matures, as the result of many influences, many currents. So it is with sustainability. One main current is the thinking and experience that led to the Brundtland Commission report.<sup>46</sup> Another main current is the thinking and experience, with TR and Pinchot together playing the largest roles, that ultimately produced, among many other things, the Northwest Forest Plan.

It is interesting that the Brundtland and Pinchot formulations are so similar. In 1987, Brundtland defined sustainability as “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs.” Pinchot wrote that “conservation demands the welfare of this generation first, and afterward the welfare of the generations to follow.”<sup>47</sup> Of course, less parallel with Brundtland but more memorable, he also stated the same idea as “the greatest good of the greatest number in the long run.”

Looking at the contributions of the TR-Pinchot current, we can see that it is fleshed out in concrete ideas within the larger idea and, critically, has been applied in the real world in actual, compelling circumstances over time. Thus, with sustainability sometimes said to be vague, this pioneering declaration of philosophy and policy has been put into action with specificity.

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44. On the Clinton Timber Summit and the Northwest Forest Plan, see GEORGE COGGINS, CHARLES WILKINSON, JOHN LESHY & ROBERT FISCHMAN, *FEDERAL PUBLIC LAND AND RESOURCES LAW 713-730* (7th ed. 2014), and the authorities cited therein.

45. Johnson interview, *supra* note 41.

46. Rep. of the World Comm’n on Env’t and Dev., *Our Common Future*, Doc. A/42/427 (1987), available at <http://www.un-documents.net/our-common-future.pdf>.

47. GIFFORD PINCHOT, *FIGHT FOR CONSERVATION* 42 (2009).