HAMILTON RODDIS MEMORIAL LECTURE SERIES No. 6

A Challenge To Resource Managers And Conservation Biologists

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HAMILTON RODDIS MEMORIAL LECTURE SERIES

This Memorial Lecture Series honors the late Hamilton Roddis who served as Secretary, President and Chairman of the Board of Directors of the Roddis Plywood Corporation for more than sixty years.

Hamilton Roddis was born in 1875 in Milwaukee, Wisconsin, and moved to Marshfield with his family in 1894 when his father invested in and assumed the direction of the Hatteberg Veneer Company. Mr. Roddis enrolled in the University of Wisconsin-Madison Law School in 1896 intending to proceed through a normal course of study. A fire destroyed the Hatteberg Veneer plant in 1897 and Hamilton Roddis remained in Marshfield to help get the new plant running smoothlysimultaneously, by independent study, he pursued his second-year law program by studying at night. He later rejoined his class in Madison and graduated on schedule. His capacity to operate on many functional levels served him well during the ensuing years in meeting the many challenges of the business world and at the same time maintaining an active involvement in civic, church and cultural affairs. Originally intending to enter the law profession, he was instead persuaded to join his father's firm (then known as the Roddis Veneer Company); he became president in 1920 and headed the company until his death in 1960. His character and intellect combined with his imaginative and progressive leadership spurred a business success through what we would today tout as Quality Management.

The Roddis enterprise spearheaded many innovations in forest products. It was the first to recognize the potential of the flush door and manufacture it on a large scale. During WW II it produced materials for the war effort by fabricating interior woodwork for the Liberty ships and aircraft plywood for the British Mosquito bomber and reconnaissance plane. In August of 1960 the Roddis Plywood Corporation, with holdings throughout the U.S. and Canada, was merged with the Weyerhaeuser Corporation.

Mr. Roddis' family, friends and university beneficiaries are pleased to honor the man and his extraordinary accomplishments in the Hamilton Roddis Memorial Lecture Series.

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INTRODUCTION

We are about to enter the first century of the third millennium. This should be a time of contemplation, a time for scholarship and thoughtful discussion. We should be defining a shared vision for the future of America's forests and other wildlands. The creation of that new vision is the greatest challenge to the future of resource management in America.

Instead of thinking about our future, however, we are focusing on the transitory problems of today while ignoring the potential long-term consequences of our actions. In short, we are losing control over our future because we live from day—to-day, resolving each problem based on the brutish efficiency of Social Darwinism. It is time to take a new approach to resource management problems and issues, one which will permit us to regain control of our future through cooperation and consensus.

THE NEED FOR CONSENSUS

History will show that resource management in the twentieth century represents an era of conflict, not consensus. Consensus requires cooperation. Unfortunately, we have blocked cooperation and fostered conflict by using one group's view of the public interest as a justification for taking resources away from other groups.

In an attempt to disguise our individual interests, we spend time cluttering our vocabulary with terms like ecosystem management, forest health, sustainable development, biological diversity, biological integrity, new forestry and many others. These words and phrases appear to portray a public interest, but they are ambiguous and loaded with hidden meanings. They contain the seeds of conflict because of debatable assumptions and definitions that often favor particular groups. For instance, some people believe that forest health is merely an excuse for harvesting more trees and that new forestry is just old forestry with snags. Still others believe that biological diversity, biological integrity and sustainable development are simply creative ways of inventing limitations that stop development. Similarly, some people believe that ecosystem management merely justifies expanding federal control over private property (Fitzsimmons, 1994). On the other hand, Jack Ward Thomas (1993), Chief of the Forest Service, thinks that ecosystem management could mean anything. Recently, he told Forest Service employees that:

We're going to practice ecosystem management. And everyone will be happy. Now tell me what that one means? I bet you when we say it everyone of us means something different. I promise you that I can justify anything you want to do by saying it's ecosystem management.

The truth is elusive and the debate is wasteful and unnecessary. Instead of providing a vision of the future, these vague terms mask the fluctuating power of influential groups.

These terms also contain built-in defenses that frustrate challenges by implicitly defining alternatives as something we should **not** want. Thus no one would say that they are opposed to biological diversity, but what is biological diversity? Similarly, it is unlikely that anybody would say that they are against forest health, but what is a healthy forest? Or who could be against sustainable development, but what is it that we should sustain? In short, such terms fail to provide meaningful goals, and they appear to be "good" only because their opposite seems so obviously to be "bad."

New terms constantly replace old terms because one group captures their meaning or because the proliferation of definitions makes them so flexible that they can justify any action. For example, preservationists have lost control of the meaning of biological diversity, so Angermeier and Karr (1994) advocate replacing it with the term biological integrity. But terms like biological integrity are insidious because they lead the public to believe that they are neutral or technical, when in fact such terms include a hidden purpose. Assume, for instance, that a policy directive requires maintaining the biological integrity of a public forest. Assume further that the agency adopting the policy accepts Angermeier and Karr's (1994) use of "natural" as the standard for biological integrity. Also assume, as they further advocate, that natural means the absence of human influence. This series of assumptions and definitions transforms a seemingly laudable policy of maintaining the biological integrity of a forest into a preservationist policy which totally excludes development or management.

Instead of thinking in new ways and planning for the future, we spin around in circles trying to hide agendas behind fuzzy terms and then defend those terms with fuzzy logic. In the third millennium, unanticipated consequences from today's decisions will slam into our old ideas and selfish purposes like an undetected meteorite. We can avoid this collision only by looking ahead and concentrating our efforts on creating an achievable and shared ideal for the next century.

In the twenty-first century, we must shift from terms and outcomes, to process. The way a decision is made is more important than the decision itself. In other words, a decision becomes legitimate when the process that generated it is deemed to be legitimate. A legitimate process fosters cooperation, not conflict, among stakeholders and those responsible for decisions. We must cooperate because the issues we face are too complex for any one group or profession to assume that they have the answers. We must cooperate because the consequences of one group's selfishness can profoundly affect the welfare of many other groups. We must cooperate to build a durable consensus. We also need a set of standards for ensuring that the process leads to thoughtful, just and effective actions.

THE IRON LAW OF CONSENSUS

A process for building consensus for the future of resource management in America must produce alternatives that satisfy five criteria that form what I call the iron law of consensus. In this case, law is used to mean a principle that is based on the predictable consequences of an act. Therefore, the iron law of consensus embodies a minimum set of standards that foster cooperation and reduce the chance for conflict and injustice. Specific cases may require additional standards, but a consensus that lasts must first satisfy all of the following:

- It must protect life-sustaining processes.
- It must enhance human well-being.
- It must respect humans and all other living things.
- It must be ecologically and economically sustainable.
- It must be acceptable to affected interests and ownerships.

Impartial measures for determining success or failure in satisfying these five standards simply do not exist. Such decisions require judgments. Therefore, the iron law of consensus also requires a consensus for each judgment; *i. e.*, that each standard has been met.

The first standard, protecting life-sustaining processes, represents common sense. In this case, protection includes mitigation because the net effect remains the same. In addition, this standard does not apply to small-scale or local processes that affect the sustainability of an alternative. It only applies to large-scale regional and global processes. This standard also helps to build consensus because it would be impossible to reach agreement on a decision that jeopardizes human life. For example, no one should seriously consider an alternative that would have adverse global consequences, such as exacerbating ozone depletion. Similarly, we should reject alternatives that promote desertification, such as overgrazing or salinization, or which adversely affect regional weather, such as massive deforestation in Amazonia. Such alternatives not only threaten human welfare, but they also generate conflict rather than consensus.

The second standard, enhancing human well-being, recognizes that all decisions made by humans serve human ends. The decision to cut an old-growth forest or to leave it alone, for example, is not inherently a choice between good and evil, or between right and wrong. It is simply a choice. However, according to this standard that choice must enhance human well-being. Ideally, the choice should provide benefits to all groups, but as a minimum, it should provide benefits to some groups without diminishing the welfare of others (the Pareto Criterion; Stokey and Zeckhauser, 1978). Any other decision would generate conflict, not consensus.

The third standard, respecting humans and all other living things, tempers decisions with a moral philosophy. It means that there is a right way and a wrong way to treat all beings that are capable of pleasure and suffering (Frankena, 1979). The second standard recognizes that resource management serves human needs, but this standard also requires that the needs of other beings be considered. It imposes a responsibility on humans to act with thoughtfulness and kindness toward one another and toward other living things. Any alternative that ignores human needs or the needs of other living things will undermine consensus.

The fourth standard, ecological and economic sustainability, imposes a long-term perspective on decisions. It is not a moral imperative but it does require careful evaluation of the consequences of producing the things that we want. Sustain means "to keep up or keep going," to "maintain." In other words, it is a modifier that limits our actions to those that we can maintain. It does not require that those actions be self-sustaining as long as external subsidies can also be sustained. To paraphrase the Brundtland Report (World Commission on Environment and Development, 1987), sustainability involves meeting current needs for a specified period of time without sacrificing our ability to meet future needs. The limits that define what is sustainable are not fixed. They are determined by technological innovation, social preferences and available

capital. Therefore, an unsustainable alternative should be modified or rejected because it will lead to conflict rather than consensus.

The fifth standard, acceptability, adds the iron to the law because it requires agreement among affected interests and ownerships. Conflict occurs when one group attempts to impose decisions on another group. Cooperation occurs when affected groups share some of the authority for the decision. Consensus occurs when cooperating groups (which must include all known groups which are willing to participate) identify alternatives that recognize the needs of others. However, a consensus need not require the enthusiastic support of all parties to the decision. On the contrary, willingness to tolerate a decision also represents acceptance. This standard challenges us to seek creative solutions that reflect the needs of affected interests as they perceive those needs. Authoritarian or paternalistic decisions should be rejected along with decisions based on dehumanized abstractions (e.g., indexes and dollars) because they can only produce compliance, not consensus.

Competing alternatives must satisfy all five standards. This means that we should not sacrifice human well-being (Standard 2) for species protection (Standard 3), or vice-versa, we must do both. Similarly, we should not trade sustainability for short-term gains (Standard 4), but a sustainable alternative must be acceptable (Standard 5). The iron law of consensus forces us to be creative and tolerant rather than expedient and self-serving.

The iron law of consensus forms an ordered series of filters through which each alternative must pass, beginning with the first standard and ending with the fifth. That is, failure to pass the first filter invalidates the alternative. Similarly, passing the first filter and then failing to pass the second filter also invalidates the alternative. A single alternative that successfully passes all five filters in the order presented may still fail the ultimate test of adoption, but any alternative that survives these tests will be adoptable. Therefore, regardless of who makes the final choice from among the list of surviving alternatives, the iron law of consensus builds the foundation for a durable consensus.

FEMAT AND THE IRON LAW OF CONSENSUS

In 1975, the Oregon Wildlife Commission listed the northern spotted owl as "threatened," but the listing had no statutory authority (Thomas, *et al.*, 1990). From that time until the present, the northern spotted owl has created a national controversy, jeopardized the management of millions of acres of public and private forestland in the Pacific Northwest and threatened tens of thousands of jobs. Repeated lawsuits have frustrated attempts to resolve the issue. As a result, the Clinton Administration commissioned the Forest Ecosystem Management Assessment Team (FEMAT) to formulate and assess an array of management options to help resolve the northern spotted owl issue (FEMAT, 1993). On July 1, 1993 President Clinton announced his proposed forest plan based on the recommendations of FEMAT, and in April, 1994, the Secretaries of Agriculture and Interior jointly amended the planning documents of their agencies to comply with the President's plan (USDA Forest Service and USDI Bureau of Land Management, 1994).

This analysis addresses one overriding question. Does the Clinton forest plan launch us into the twenty-first century by conforming to the iron law of consensus? Each standard in the law provides a test for answering this question. In addition, pass-

ing or failing each test, or standard, requires a judgment that must also represent a consensus. The results show that the forest plan does not represent a consensus because 1) the evidence indicates that it fails four of the five tests and is neutral on one test, and 2) a consensus judgment does not exist for any test. In short, the plan does not conform to the law. It simply illustrates the continuing failure of adversarial politics in the twentieth century. In the absence of a consensus, this analysis represents the author's view on the success or failure of the plan to satisfy each standard in the law.

The First Test: Protecting Life-Sustaining Processes—The forest plan neither passes nor fails the first test. It includes four main land allocation categories that emphasize protection within the range of the northern spotted owl. The centerpiece of the plan involves reserving 7.4 million acres in Late-Successional Reserves scattered across federal land (USDA Forest Service and USDI Bureau of Land Management, 1994). Timber harvesting is excluded in these areas. In addition, thinning can only occur in forest stands less than 80 years old, and then only if it accelerates the development of late-successional conditions. Next, the plan includes 2.6 million acres in Riparian Reserves that provide buffers along perennial and intermittent streams, lakes and wetlands. The remainder of the land is allocated to restricted forms of timber management in Adaptive Management Areas (1.5 million acres) and Matrix Areas (4 million acres). Adaptive Management Areas include private land. Even these areas favor late-successional forests (FEMAT, 1993). The plan is neutral on this test because the protection achieved in the Pacific Northwest by drastically reducing timber harvesting may result in decreasing protection elsewhere in the world.

The loss in U.S. timber supplies will cause imports to increase (they increased 14% between 1992 and 1993), which in turn may lead to rapid deforestation in such places as the Siberia. Exports of wood from the US and Canada to Asia will also decrease (US timber exports decreased by 5.7% between 1992 and 1993), causing countries such as Japan to further increase imports from tropical forests (McKillop, 1994a, 1994b; Northwest Forest Resource Council, 1994b). Increased pressure on tropical forests will exacerbate the already severe deforestation problem that threatens regional weather in Amazonia and perhaps the global climate. In addition, reduced timber supplies have already led to accelerating use of nonrenewable substitutes for wood such as steel, aluminum, concrete and plastics—all of which cause more environmental damage than timber harvesting (Lippke and Oliver, 1993; McKillop, 1994a, 1994b). Therefore, the forest plan fails to consider the global consequences of reducing timber harvesting in the Pacific Northwest.

Although the forest plan protects life-sustaining processes in the Pacific Northwest, it ignores less draconian alternatives that would permit the continued use of the land. The first standard in the iron law of consensus allows mitigation that achieves protection. For instance, there are at least five management options that would permit timber management and still protect riparian areas and ensure the survival of late-successional species. These alternatives include long-rotation timber harvesting (DeBell and Curtis, 1993; Newton and Cole, 1987), managed old-growth islands (Harris, 1984), floating habitats (California Department of Forestry and Fire Protection, 1992), land-scape management (Lippke and Oliver, 1993) and restoration management (Bonnicksen, 1994). Any of these five options would probably pass the first test in the

iron law because they provide protection in the Pacific Northwest without causing damage in other parts of the world.

The Second Test: Enhancing Human Well-Being—The forest plan fails the second test because it only favors the interests of those groups that advocate preserving old-growth. In other words, it does not satisfy the requirement in the iron law of consensus that a decision should provide benefits to all groups. It does not even meet the minimal standard of providing benefits to some groups without diminishing the welfare of other groups. On the contrary, the forest plan has hurt thousands of local residents and caused an increase in lumber prices that has added as much as \$5,000 to the cost of an average new home. An increase of this magnitude in the purchase price of a typical home forces up to 100,000 buyers out of the housing market. Furthermore, increasing lumber costs will slow down the construction of rental units and inflate the price of existing homes. This increase in the cost of lumber is actually a hidden tax that has its greatest impact on working families (Thompson, 1994).

Some groups claim the forest plan did not hurt the economies of Oregon and Washington. For example, Oregon gained nearly as many jobs in high technology companies over the past five years as it lost in the forest products industry. In addition, timber workers are being retrained for some of those jobs, especially in manufacturing. Such arguments fail to consider two important points. First, the forest plan was not responsible for creating high technology jobs. Instead, it severely limited the inherent capacity of the state's economy to grow based on a diversity of industries. In short, the economy would have been twice as well off if the plan had not eliminated thousands of forest products jobs.

Second, and more important, economic statistics hide unnecessary human suffering. While some timber workers feel they are better off changing jobs, others must move from their homes, take low paid jobs or accept welfare. Some forest communities in southern Oregon do indeed show increasing property values, but those farther away from high technology industries are boarding up schools, stores and homes as property values drop with mill closings. Over 160 mills closed between 1990 and 1994 due to the forest plan, and more are closing. In addition, Region Six of the Forest Service announced that their interim payment to local county governments for schools and roads would decrease by 25% in 1994 because of declining timber sales (West, 1994). Even the Forest Service is laying off as many as 25% of its workers due to the declining timber sale program (Burley, 1994). The greatest impact on jobs and communities will be felt when private landowners run out of timber for the mills, existing Forest Service logging contracts expire, and the cost of importing logs becomes too expensive. Therefore, the forest plan fails the second test because it reduces the welfare of many groups in order to provide benefits to a few groups.

The Third Test: Respecting Humans and All Other Living Things—The forest plan fails the third test because it only shows respect for non-human life. In addition to the northern spotted owl and marbled murrelet, the forest plan considered the needs of eighty-seven vertebrate species, races or groups (USDA Forest Service and USDI Bureau of Land Management, 1994). The plan also considered six other taxonomic groups of species: lichens, fungi, mosses and liverworts, vascular plants, mollusks and

arthropods (Thomas, *et al.*, 1990). The adequacy of the assessment of impacts on these species remains a subject of debate. However, there is no debate about the laudably intense effort expended in the forest plan to show respect for the needs of non-human life. Unfortunately, the plan gave non-human needs approximately four times more attention than human needs.

Respect is a moral philosophy, or at least a courtesy that requires people to act with thoughtfulness and kindness toward one another as well as other living things. The forest plan also fails this test because it imposes excessive demands on forests in other countries to protect forests in the Pacific Northwest. This decision shows a lack of respect for the people who live in those countries and the creatures that live in their forests. Respect for others should not stop at political boundaries.

The ruling of Washington, D.C. Judge Thomas Jackson on March 21, 1994 provides the single most important evidence supporting the failure of the forest plan to show respect for people. He found that FEMAT was an advisory committee that should have complied with the open meetings law (Federal Advisory Committee Act). Judge Jackson ruled that FEMAT failed to open its meetings to the public, failed to publish notices of its meetings, failed to make its files available to the public, failed to keep minutes, failed to balance its membership and failed to take precautions against undue influence by special interests (Saperstein, 1994).

The lack of respect for public rights grew more ominous when Dr. Jack Ward Thomas, Chief of the Forest Service, revealed that he ordered FEMAT to shred documents to avoid leaks (Saperstein, 1994). He testified that on some days FEMAT shredded five to six 50–gallon garbage bags full of documents. He rationalized the shredding by reasoning that the documents might be perceived "... as adverse to their [the people's] economic interests." They also destroyed FEMAT's computer files in violation of Judge Jackson's orders (Saperstein, 1994). Thus the forest plan fails the third test because it lacks respect for the needs and rights of all Americans, and the needs of people and non-human life in other countries.

The Fourth Test: Ecologic and Economic Sustainability—The forest plan fails the fourth test because it is not ecologically or economically sustainable. It is economically unsustainable because the plan does not generate revenue to pay for management. It relies on the continued but undependable support of taxpayers.

An ecologically sustainable plan for old-growth requires determining how much you want. However, determining how much old-growth you can get also depends on what you can keep. The public thinks that the forest plan will sustain forever a sample of the cathedral forests of Douglas-fir that used to cover most of western Oregon and Washington. Unfortunately, the public will be disappointed because the plan does not set aside land to reproduce old-growth Douglas-fir after the existing trees die.

Many people are fooled into believing that old-growth forests are immortal. This false perception of permanence lulls people into thinking that the best way to maintain old-growth is to protect it from humans. It is true that this generation of modern humans will probably see forests of old-growth Douglas-fir as long as they live. Unfortunately, each successive generation will see less and less old-growth Douglas-fir. Eventually it will all be gone. In place of the huge Douglas-fir trees will be less impressive forests of small western hemlock trees and other shade tolerant species (Franklin

and Hemstrom, 1981). Douglas-fir, for example, can reach a height of over 300 feet, a diameter of over 15 feet and live to be over 1000 years old (Fowells, 1965). Western hemlock, on the other hand, only lives about 500 years and rarely grows larger than 4 feet in diameter and 225 feet tall (Fowells, 1965). It also is more susceptible to disease, insect attack and wind throw than the sturdier Douglas-fir (Fowells, 1965).

Douglas-fir is a pioneer species that regenerates on bare soil with abundant sunlight. Under natural or presettlement conditions, favorable sites for Douglas-fir regeneration were created by massive wildfires that cleared most of the old forest and prepared the new seedbed. These massive fires often burned tens of thousands of acres. Some large trees and heavy logs escaped the flames and became part of the new forest (Hansen, et al., 1991). Each newly cleared site represented one large patch in the ancient forest mosaic. Sometimes another smaller fire would create additional seedbeds in the patch as the forest developed. Because of slow colonization and repeated fires, Douglas-fir reseeded into these areas over periods that could last from 100 to 200 years. Finally the site would be completely covered by large relatively even-aged Douglas-fir trees with smaller western hemlock and other shade tolerant species in the understory (Franklin and Hemstrom, 1981).

The forest plan requires protecting forest reserves from large-scale disturbances by fire, wind, insects and diseases (USDA Forest Service and USDI Bureau of Land Management, 1994). If massive fires do not create large new openings in the forest, the old Douglas-fir trees will eventually die and release the western hemlock growing in the understory (Dale, et al., 1985). Western hemlock will then become the dominant tree in the forest. It will remain dominant because western hemlock can regenerate within small, shaded gaps created by the death of single large trees or small groups of trees. Therefore, without such disturbances the old-growth Douglas-fir forests of today can not be sustained. They will die and be replaced by less desirable forests of western hemlock.

Under natural or presettlement conditions, the forest mosaic consisted of huge adjacent patches that spread across the entire region. Some of these patches were larger than the area within individual reserves. The proposed reserves represent fragments of this presettlement mosaic that are isolated from one another. One obvious method to make the forest plan ecologically sustainable involves harvesting or setting fire to entire reserves on a rotation basis that mimics the natural fire cycle so that the regional mosaic looks like the natural or presettlement mosaic. Thus, each reserve would represent one patch in a fragmented mosaic. However, the isolation of the reserves from one another would prevent them from being colonized in a natural manner after they are harvested or burned. It would also be difficult to justify harvesting or burning thousands of acres of old-growth forest.

The only practical way to sustain old-growth Douglas-fir forests is to shrink the regional mosaic down to the size of the individual reserve. This means that the size of the patches opened in the mosaic by harvesting or burning would be small so that all of the different stages of succession are represented in one reserve. Thus, old-growth Douglas-fir forests can only be maintained by active management. The forest plan is not ecologically sustainable because it excludes active management to perpetuate the old-growth Douglas-fir forests that the reserves were originally set aside to protect.

The Fifth Test: Acceptability—The forest plan fails the fifth test based on overwhelming evidence from lawsuits alone. For instance, the Northwest Forest Resource Council (NFRC) successfully sued the Forest Ecosystem Management Assessment Team for violating open meetings laws. The also succeeded in having the plan for eastside forests in Oregon and Washington declared illegal because it violated public participation procedures in the National Environmental Policy Act and the National Forest Management Act. Environmental organizations also filed five lawsuits contending that the forest plan did not provide adequate protection for the spotted owl (Saperstein, 1994). The NFRC also challenged the forest plan in separate lawsuits against the Forest Service and the Bureau of Land Management. They were joined in the suits by labor unions, timber dependent counties, school districts, college students, hunters, photographers, campers, parents of school children, small landowners, miners, wildlife enthusiasts and unemployed timber workers (Saperstein, 1994). The Association of O & C (Oregon and California) Counties filed a third lawsuit. However, the Clinton Administration won this legal battle when Judge William Dwyer declared the forest plan legal (Saperstein, 1995).

After Judge Dwyer's decision, representatives of both the timber industry and environmental groups continued to reject the forest plan. The Sierra Club Legal Defense Fund stated that "We still think the plan has some very serious flaws" (Kenworthy, 1994). Similarly, the Northwest Forestry Association said that "Today's events completely reinforce our position that Congress has to intervene in this effort" (Kenworthy, 1994). Any plan that generates so many lawsuits from such a variety of interests cannot represent a consensus. The forest plan fails the test because it is not acceptable to any interests other than those of the planners. Additional lawsuits are pending.

CONCLUSION

Creating a shared vision for the future of America's wildlands provides the greatest challenge facing resource managers and conservation biologists today. A shared vision requires a consensus, and a consensus requires cooperation. Cooperation means that those who are affected by decisions share authority in making the decisions. This also means that we must shift from focusing on specific objectives and ambiguous goals that favor certain groups, to processes that involve all groups. The process used to foster cooperation is more important than the decision itself. A legitimate process produces a legitimate decision. Regardless of the process used, the iron law of consensus forms a series of tests through which each alternative must pass if it is to build the foundation for a durable consensus.

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