Regional Integrated Land Management: 
A Proposal for Confronting Global Environmental Degradation

Andrew Tirrell

Introduction

In November 2010, the Global Conference on Agriculture, Food Security, and Climate Change was held in The Hague. Remarkably, these inextricably linked topics had not been combined to form the theme of an international conference before. Yet, despite the strong ties that connect these subjects, there was no immediate consensus regarding the true focus of the conference. The opening speaker confidently declared that the conference was really about water, as water is a unifying factor for all of the themes that would be discussed. At other points during the week, presentations about soil quality, deforestation, small farmer welfare, and crop intensification all claimed the primacy of their subject matter. By the end of the conference, however, there seemed to be a growing realization that the world’s systems of natural resources were far too connected to allow the attendees to address any of the conference issues independently.

Some policy makers are already attempting to unify actors and fields to responsibly manage, and in some cases, restore, local ecosystems. Such efforts recognize, for example, that forests play an integral role in maintaining water quality; that water quality is necessary for successful agriculture; and that only sustainable agriculture will provide the food security necessary to undercut the drivers behind deforestation. Of course, these factors, among many others, are much more intricately intertwined than that. But even a simplistic outline of the important relationships between water, natural lands, and agriculture provides a compelling argument for integrating the way in which these resources are managed.

An integrated approach is necessary to rehabilitate the planet, allowing for ecologically responsible choices that at the same time do not compromise the ability of developing nations to improve quality of life for their citizens. This paper will argue that the myriad projects currently under way should be formally incorporated into a larger initiative, referred to here as Regional Integrated Land Management (RILM). The aim of creating such a framework is to provide the expertise, funding, and other support necessary to ensure such an integrated approach can achieve the most dramatic and synergistic impacts possible.

The initiative’s infrastructure, as proposed here, is based on a regional working group system that combines local knowledge and innovation with international financial resources and technical assistance in order to build partnerships, increase efficiency, and arrive at scalable results. The hope is that a system built on opportunity rather than burden-sharing, and focused on interests rather than
positions, will be able to overcome the conflict and entrenchment that usually plague questions at the nexus of economics and natural resources.

**Proposal**

**Integrated Land Management**

Nearly all human activities are highly dependent on the Earth’s surface and its resources. The recent increase in social and environmental issues linked to land and resources dictates that we refocus our development efforts in ways that promote the sustainable management of ecosystems. Key issues include soil erosion and salinization, desertification, deforestation, groundwater depletion, water pollution, loss of biodiversity, and poor agricultural yields. Many of these problems can be prevented with the right combination of technical knowledge and financial resources. For example, Australian agriculture is especially vulnerable to the effects of irrigation when agricultural production is sometimes even more limited by poor soil quality than water availability. In such situations, it would be far more prudent to invest in improvements in land and water management equipment and practices, in order to enrich the soil and increase access to water.

Moreover, many of these issues have spill-over effects locally, regionally, and globally. For example, local deforestation can have serious impacts on groundwater and soil quality that affect local communities and agriculturalists. This same deforestation might affect global biodiversity by closing off an important biological corridor and have global repercussions caused by depleting the area’s carbon sequestration capacity, thereby increasing global atmospheric carbon dioxide concentrations. In such circumstances, sustainable land management practices, including reforestation and assisted natural regeneration, could allow for “augment[ed] biodiversity and ecosystem services,” “income for rural livelihoods,” “salinity management,” and the creation of “buffer zones and biological corridors” in order to “enhance landscape connectivity and landscape-level biodiversity” (Chazdon 2008:1458).

Land degradation is particularly devastating in developing countries, where a great percentage of the population depends directly on agriculture for daily survival. This dependence often drives some of the very activities (deforestation, overuse of chemical pesticides and fertilizers, unsustainable water use) that fuel further degradation. Moreover, without the protection of such vulnerable circumstances, any degradation of agricultural capacity is a grave threat to the health and welfare of the local population. Absent a unified strategy to reconcile competing interests (such as agriculture and forest conservation), the poverty-driven primacy of agriculture undermines the ability of communities to prioritize sustainability in their economic decision-making (Rawat 1995:319). This point is critical, as “ultimately, the future of a natural ecosystem depends not on protection from humans, but on its relationship with the people who inhabit it or share the landscape with it” (Chazdon 2008:1460).

The goal of RILM is to confront such diverse problems in a way that coordinates efforts, aligns long-term planning, and reaps rewards from the synergy that exists between highly interrelated natural systems. Like sustainable development more generally, RILM seeks to maximize economic and environmental benefits in the present, while preserving the land’s capacity to provide for future generations. Because a variety of societal actors have diverse interests in how land is used, land management can be the subject of intense conflict. By unifying questions of land management under a single framework, RILM should be able to find solutions that optimize land use and make it efficient, beneficial, and sustainable.

RILM programs should include all stakeholders, examine land-use issues through a variety of disciplinary and sectoral lenses, and arrive at solutions that provide the greatest benefits without unfairly penalizing any particular stakeholder. It should be a process that seeks to incorporate, rather than alienate, actors that are currently responsible for degradation. The inclusion of the private sector, and especially resource-based industries such as mineral extraction and timbering outfits, is critical for realizing land management goals.

For example, recent Canadian land management programs have successfully integrated resource extraction interests, thereby greatly increasing the sustainability of these industries (MacKendrick 2005:29). Another innovation that has been successful on a limited basis is a system of tradable land management permits designed to regulate land use to within sustainable limits (Weber & Adamowicz 2002:582). While it is still unclear how large the role of economically driven solutions will be, garnering broad-based support will require openness to ideas outside the traditional environmentalist framework of trading economic growth for environmental preservation.

RILM should be a process of continual reassessment, supported by a robust system of monitoring and evaluation of ongoing projects. Given these demands, the framework under which RILM is implemented must be able to muster significant resources, while at the same time allowing projects to be managed closely so that adequate oversight is possible. Such a system will require a combination of strong institutional structures and flexibility.

**Regional Groups**

The cornerstone of this proposal is the creation of a framework of small regional working groups. These RILM working groups would consist of several regional developing countries, at least one donor country, a variety of civil society organizations (such as environmental nongovernmental organizations, academic or scientific institutions, community or indigenous organizations, and farmer collectives), development bank representatives, and private sector entities. The concept behind these RILM working groups is to partner regional stakeholders with donor countries that are committed to achieving sustainable ecosystem management and restoration.
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The theoretical inspiration for regional working groups comes from Policy Network Theory.

Policy networks are defined as “webs of relatively stable and ongoing relationships which mobilize and pool dispersed resources so that collective (or parallel) action can be orchestrated toward the solution of a common policy” (Renis & Schneider 1991:36). They are useful “where the capacity for decision-making, program formulation, and implementation is widely dispersed” (Renis & Schneider 1991:41). In policy networks, “actors are dependent on each other to reach their goals,” and such networks can already be found on both sides of many environment-versus-development issues (Lemos & Roberts 2008:1898). The RILM initiative, in acting through regional working groups, would seek to create a policy network that instead unifies development and environmental interests. Resources from a diverse coalition of actors, rather than opposed interest groups, are necessary to meet the human and environmental challenges of the coming century.

Beyond Policy Network Theory, the regional group strategy is predicated upon several additional principles. The first of these is the idea that agreement to and implementation of programs is more quickly and easily developed when fewer parties are involved. RILM working groups should include no more than three to five countries in total, in addition to representatives from civic groups and the private sector. This size allows for collective problem-solving, cross-border strategizing, and joint capacity-building efforts. Programs successfully piloted and implemented through the working groups can then be cross-pollinated to other regions and contexts through a RILM umbrella agency.

Another principle of this strategy is that collaboration among donors, developing countries, and nongovernmental participants will result in better regional partnerships outside of the land management context. By removing participants from the factionalized international negotiation settings that are often associated with environmental treaties, opportunities for greater mutual understanding and cooperation may develop. Without leaders from stagnant coalitions directing the process, countries may truly consider their interests, rather than set positions, and find ways to combat environmental degradation that fit within their other national interests and development goals. Moreover, because of their regional geographic constituencies, RILM working groups may foster better relationships among neighboring countries. Since ecosystems do not recognize national borders, many of the most effective solutions for ecosystem management and restoration may come in the form of trans-boundary collaborations.

One final principle behind RILM working groups is that early action and momentum can play a prominent role in the global movement to slow environmental degradation. Putting responsible land management into practice normalizes the expectation for healthy ecosystems. As people come to understand how interconnected natural areas, agriculture, and water systems are, they will begin to appreciate ecosystem maintenance as something that should be done, rather than something that merely could be done. Moreover, beginning the work of restoring and maintaining ecosystems in an expedited way will strengthen the readiness and capacity to combat environmental degradation going forward, allowing for a better understanding of the kinds of projects that are most effective in particular locations and circumstances. This speed, in turn, will allow positive impacts on local, regional, and global health to be achieved in a way that could derail some of the harshest feedback loops that we are currently facing (e.g. climate change, infectious disease).

The size of RILM working groups allows for just such expedited piloting and implementation of proposed solutions.

RILM Structure

Although the working groups should act independently, an overarching agency should be created to act as an umbrella organization and secretariat. This agency would be responsible for the initial establishment of the working groups, clerical administration, communications among parties, and information sharing among regional groups. Such an organization must be created by mutual agreement of the state actor parties and should be a minimalist entity so that protracted debates do not break out over administrative details.

Rather than pooling funding, each donor should be required to commit equivalent amounts on a yearly basis (perhaps placed in a trust to ensure availability), with progressive increases in those commitments to account for full implementation of successfully piloted projects, increasing ecosystem threats, and monetary inflation. Initial equivalency in the funding commitments of individual donors is important to ensure that every RILM group has adequate support. Donor countries might then increase funding for successful pilot projects, and additional capital inputs might be expected from the World Bank, regional development banks, the private sector, and other non-state actors.

The RILM model is designed to be flexible and to allow for new participants to increase the scope of existing regional groups or to create new groups of donors and developing partners. Adding new participants to already existing regional groups might represent an organic way to scale up the process without making the “quantum leap” from a small regional group to a large multilateral initiative.

Regional Group Composition

The regional groupings could be based on a variety of factors beyond geography. Shared language, a history of past cooperation, and the need for future cooperation to meaningfully achieve effective land management would also be important considerations in order to maximize the potential for mutually beneficial problem-solving and collaboration. Commonality of ecosystem challenges might even be a factor that trumps geography in some cases. For example, some working groups might be constructed around issues of desertification, particular agricultural
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practices, or specific water quality issues, and therefore be composed of parties that share these challenges from diverse geographical areas.

The selection of non-state actor organizations is bound to be a sensitive issue. In some cases, the creation of a new organization consisting of representatives of various nongovernmental organizations or community groups might be appropriate. However, organizations with extensive experience in particular land management areas might already exist, and may be acknowledged as the only legitimate parties to a regional group from that sector. In any case, while the technical expertise held by international organizations will likely be an important part of any solution, care should be taken to ensure that specialized local knowledge held uniquely by regional, national, and community-level organizations is also leveraged.

Advantages of RILM

There are many advantages to pursuing a program of Regional Integrated Land Management. These advantages stem both from the potential synergy of integrating the management of agriculture, water use, and natural landscapes, as well as from the regional working group model of the proposal. The benefits to the various parties involved, in terms of both synergy and scale, are examined in detail below.

Advantages for Donors

Integrated land management is a uniquely satisfying form of development, as it allows for both subtle and apparent results. While the majority of the benefits of properly managed lands do not manifest themselves visibly (for example, water quality, carbon sequestration, or crop yields), lands that are managed well are marked by improvements that are obvious even to the casual observer. For example, lands that were once barren and nearly devoid of flora (and, consequently, fauna) can be restored to natural, sometimes even lush, states of vegetation. In this way, integrated land management projects confer the additional benefit of creating a "tangible" product, making financing easier to justify, and making it politically prudent to allow positive results to be "undone."

Accountability is a primary concern for donors in various development settings. Knowing how funding will be used and believing that contributions will produce tangible results increases the level of donor comfort in making large commitments. The choice of method for ensuring accountability is often controversial, and disagreements over assessments are often responsible for delays in the implementation of environmental and sustainable development institutions. For example, Reducing Emissions from Deforestation and Degradation (REDD) mechanisms have been slow in their implementation due to negotiations over how funding will be used and which processes will ensure that funding is achieving results. Due to their size, RILM working groups will instead allow donors to play an integral role in determining how their contributions are used. The presence of only

one or two donors in a regional group ensures that projects will be designed to make the impacts that donors desire, and that systems of accountability can be structured in ways that give donors confidence in the value of their investments. Accountability mechanisms can be overseen directly by the donor or by a mutually agreed-upon third party. Future funding for that program can then be attached to the achievement of program goals, commensurate with the value of the initial outcomes. Such detailed monitoring and evaluation allows for programmatic adjustment toward better results, and encourages the piloting of innovative projects without demanding onerous upfront investment.

Moreover, the regional nature of the proposal also permits donor countries to take direct credit for the outcomes that follow (which may, in many cases, include creditable carbon sequestration), as funding will come from the donor, rather than from a pooled source. Such ownership of the results can be used to increase domestic support of the program, and of sustainable development issues more generally. In this way, the original contribution can lay the groundwork for future investments in ecosystem development projects.

Developing Country Advantages

Integrated land management projects are especially advantageous for developing countries as they carry for citizens the immediate benefits of improved ecosystems and natural environments. The aesthetic, enjoyment, health, and production values of such ecosystem improvements can be tremendous, and increases in the beauty and function of national lands often provide a direct economic boon for the tourism and agriculture sectors. Moreover, developing partner governments might further capitalize on these successes by encouraging a culture of national pride in environmental preservation. Incorporating environmental ideals into the national identity could bolster public support for maintaining restored landscapes and for undertaking additional sustainability initiatives.

One of the common difficulties faced by developing countries, in the context of multilateral negotiations, is a lack of preparation, capacity, and expertise in the subject of the negotiations. The regional nature of this proposal carries the potential for a stable source of funding, the details of which will be negotiated on a manageable scale in a familiar local context. The RILM framework decreases the pressure on often under-resourced governments and creates opportunities to build long-term partnerships with donor countries. Such partnerships might include technical support, capacity-building, and training in the ecosystem development context and beyond.

Close partnerships also represent a real opportunity for innovation. Donor countries who have invested in fostering a relationship will be committed to seeing their developing-country partners succeed, increasing the likelihood that promising but untested ideas for projects and approaches will be given serious consideration. Local knowledge of agricultural practices, ecosystems, and water systems can be
combined with technical expertise from donor partners to achieve innovative successes.

**Civil Society Advantages**

The scale and nature of Regional Integrated Land Management creates the potential for meaningful participation by civil society organizations, defined broadly. Project quality would be increased by the input of environmental nonprofit organizations, farmer collectives, scientists (and science advisory organizations), poverty alleviation organizations, and development banks. The collaboration of such diverse parties, including government representatives and private sector participants, could foster new partnerships within the land management sector and beyond. Most importantly, this close collaboration will ensure that each organization truly has an opportunity to make an impact on how projects are designed and implemented, and can, therefore, best meet its individual mission.

**Private Sector Advantages**

For business interests, RILM carries opportunities for expansion into new markets and collaboration with partners from outside the private sector. Regional groups seek business participation because private sector actors are often the most efficient in theorizing, developing, and producing solutions to challenging problems. The land management field is no different in this regard, and participation in RILM regional groups will allow businesses to gain a deep understanding of the challenges involved and to develop innovative and profitable solutions. Moreover, the risk of such innovative solutions need not be borne by the private sector alone. Product piloting could be jointly funded by donors and development banks, with outside investments repaid out of profits, or forgiven in the case of failed enterprises. In cases lacking a strong opportunity for profit, but which could, nevertheless, benefit from private sector participation, some companies may wish to contribute in order to meet corporate social responsibility goals.

**Conclusion**

Regional Integrated Land Management is a proposal predicated upon the combination of two important ideas. The first is the appreciation of the synergy that exists between a variety of natural and man-made systems, including agricultural, natural environment, and water systems. The second is an understanding that smaller-scale collaboration, made more attainable through structured partnerships, can be more expeditious and effective than processes of international negotiation. Combining these ideas would ideally lead to investments not only in undervalued environmental services, but also in relationships. Because these relationships are not limited to traditional diplomatic actors, they have the potential to tap into resources that have been dispersed well beyond national and sectoral borders in our contemporary world.
Bibliography


