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A VIEWPOINT SERIES ON POVERTY AND THE ENVIRONMENT

Forest Conservation and the Rural Poor:

A Call to Broaden the Conservation Agenda

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The Viewpoints on Poverty and the Environment series provides a forum to discuss the difficult, often controversial, challenges of integrating poverty and the environment into effective development strategies. We welcome the diverse views of a wide range of authors and institutions.

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FOREST CONSERVATION AND THE RURAL POOR: A CALL TO BROADEN THE CONSERVATION AGENDA

P. Gutman[1]

1. Why revisit the forests–poverty nexus?

Forest conservation efforts have achieved significant successes worldwide in the last 30 years. These include increasing the variety and number of protected forests; enhancing the visibility of forest issues, both nationally and internationally; promoting new national and international policies and partnerships in support of forest conservation; and working with communities, consumers, and producers to foster sustainable forest management and logging practices.

These achievements, however, have not stopped the world from losing forests—particularly tropical forests, but also temperate ones—at alarming rates. Hence the questions: Are we doing all we can? Should we do more of the same? Is there room to add new perspectives? We should certainly do more of the same, but I would submit that there is room also for reviewing some approaches and adding new perspectives.

One of the areas where review and additions seems warranted is that of the forests–poverty nexus. First and foremost, worldwide concerns about poverty alleviation and the need for new strategies to address poverty are putting the onus on the conservation movement to show that forest conservation helps rather than hinders poverty alleviation. If we do not step in with convincing proposals to support this contention, we may witness further attacks on forests in the name of poverty reduction.

Second, there is growing frustration among conservation and social development practitioners with policies that have not lived up to their claims of being able to deliver both poverty alleviation and forest conservation. These include many market-oriented reforms, agricultural intensification programs, and integrated conservation and development projects.

Third, we must reopen discussion on this issue because the current state of affairs, in which a rich urban world demands that the poor rural world embrace what is essentially the environmental agenda of the former, is not sustainable. The situation will continue to be unsustainable until the needs and concerns of the poor rural world are brought on board, and until its role as steward of the world environment is duly acknowledged and rewarded.

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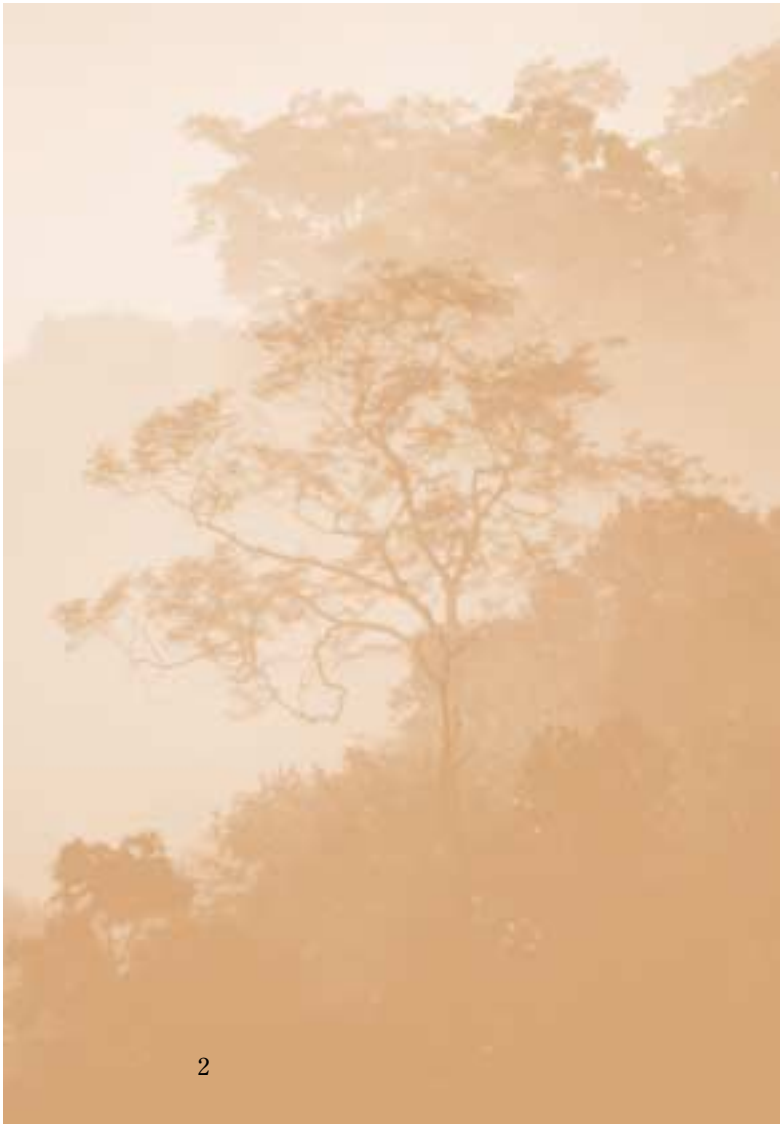
2. New answers to pressing questions

The conservation movement has for several decades viewed the forests–poverty nexus with a vicious circle conceptual framework, within which population growth, limited environmental carrying capacity, natural hazards, and market failures combine to perpetuate poverty-cum-environmental degradation traps. This diagnosis led to the implementation of local integrated conservation and development projects (ICDPs), which were viewed as a win-win strategy that could deliver both environmental conservation and poverty alleviation.



WWF embraced the ICDP approach in the mid-1980s, and a decade later was devoting more than half of its budget to this approach (Larson et al., 1998). Outcomes, however, as assessed both inside and outside WWF, were mixed (Leonard, 1989; Wells and Brandon, 1992; Brown and Wyckoff-Baird, 1995; and Larson et al., 1998). Although there were many success stories, with credit given to the commitment and efforts of participants, there is a sense of frustration with the limitations of the ICDP approach. Some ICDPs fail because they are unable to insulate themselves from national or international changes, (from the building of new roads and infrastructure to market and economic changes, that may threaten years of local-level conservation efforts). Others fail because they do not deliver sufficient profits to make them an attractive option among the local population (for example, they may be more complex, less productive, and provide fewer market outlets than originally touted). In part as a reaction to the shortcomings of ICDPs, several conservation organizations have now moved to larger, ecoregion-based conservation strategies—an approach that increases the need to address conservation and rural poverty issues.

One alternative to the vicious circle theory is the pro-market approach. Sometimes complementing and sometimes competing with the vicious circle theory, this approach blames insufficient markets and a lack of property rights for deforestation and rural poverty, and has been used to justify the drive by international development banks and development agencies for land titling, for the scrapping of price controls and subsidies, and for the opening up of rural production to international competition, on the assumption that expanded markets and private ownership would foster rural development and protect natural resources. In some cases, such as in China, these initiatives have paid back in terms of rural poverty allevia-

tion; in others, such as in Africa, they have not. Nowhere have they fostered forest conservation.[2]

These failures suggest that the conceptual approaches used in the past were deficient, or at least incomplete, and in the last decade new answers and strategies have been proposed to address four basic questions:

1. **What are the immediate, intermediate, and root causes of deforestation?**
2. **Are the rural poor a threat to forests?**
3. **Are forests an important source of current or potential income for the rural poor?**
4. **How might the conservation movement better mainstream forests–poverty issues into its policy and activities?**

The following sections address these questions in turn, summarizing current thinking and perspectives. To close, I offer a number of specific suggestions that I believe can strengthen the conservation community's response to the challenges posed by poverty to the world's declining forests.

3. What drives deforestation?

Research into the immediate causes of deforestation has grown significantly in the last decade, and although some disagreements linger, the overall picture is clear. After reviewing more than 150 economic models of tropical deforestation, Kaimowitz and Angelsen (1998) report:

> "A broad consensus exists that expansion of cropped area and pastures constitutes a major source of deforestation.…Pasture expansion is especially important in Latin America."
>
> "There is no similar consensus with regard to logging, although it seems to be

2. Angelsen (1999) and Angelsen et al. (1999) show that many pro-market reforms predicated to increase resource conservation actually increased deforestation.

a direct source of deforestation in some contexts.… Southeast Asia has been identified as one region where logging contributes to deforestation."

"Evidence regarding both fuel wood and open pit mining is weak, although it points to them being occasional sources of deforestation, particularly for fuel wood in Africa."

Several studies investigating the intermediate causes of deforestation find that higher agricultural prices (particularly for annual crops), higher timber prices, increased opportunities for land titling through deforestation, more rural credit, more roads, lower rural wages, and a shortage of off-farm employment opportunities foster the expansion of cropped areas, pastures, and logging—all of which are immediate causes of deforestation.[3]

Intermediate causes are usually linked to broader processes. Also known as root causes or ultimate drivers, these are the national and international processes that trigger the chain of events that eventually put in motion or accelerate deforestation. While such root causes are similar the world over, the direction and magnitude of the deforestation processes they drive are usually country- and site-specific. Consider, for example, these findings regarding the impact of countrywide economic crises and ensuing adjustment programs:

- Bolivia's economic crises of the 1980s and the ensuing structural adjustment policies saw poverty rising at the national level, but produced no trace of poverty-induced deforestation. While deforestation did increase significantly, it was as a result of the expansion of soybean and logging for export. (Kaimowitz et al., 1999)
- In Cameroon, the economic crises of the mid-1980s and the subsequent adjustment programs caused widespread deforestation in the country's southern regions. This was due to an increase in rural population and a move from export-oriented plantation crops such as cocoa and coffee, whose prices were falling, toward food crops. This change required more land, both because food crops are more extensive and because some farmers kept their plantation plots, instead clearing new land for the food crops. (Mertens et al., 2000)
- On the island of Java in the Indonesian archipelago, the financial crisis of the late 1990s and subsequent adjustment programs fostered significant forest clearance by small farmers, who reacted to the crisis by increasing their holdings of rubber and other tree crops, mostly as a source of future income security. (Sunderlin et al., 2001b and 2001c)

More generally, Geist and Lambin (2001), in a review of 152 deforestation case studies, conclude that:

"Tropical deforestation is driven by… economic factors, institutional and national policies, and remote influences…Our findings reveal that too much emphasis has been given to population growth and shifting cultivation as primary and direct causative variables at the decade time scale."

These interactions between immediate, intermediate, and root causes have important consequences for forest conservation strategy. According to Sunderlin et al. (2001a):

"The implication of these findings is that a wide gamut of polices not heretofore con-

3. See Amsberg (1994), Angelsen (1999), Angelsen et al. (1999), and Kaimowitz and Angelsen (1998).

sidered relevant—for example, exchange rate, trade, urban employment, and infrastructure policies—must be taken into account and modified if the goal of reducing inappropriate deforestation is to be taken seriously."

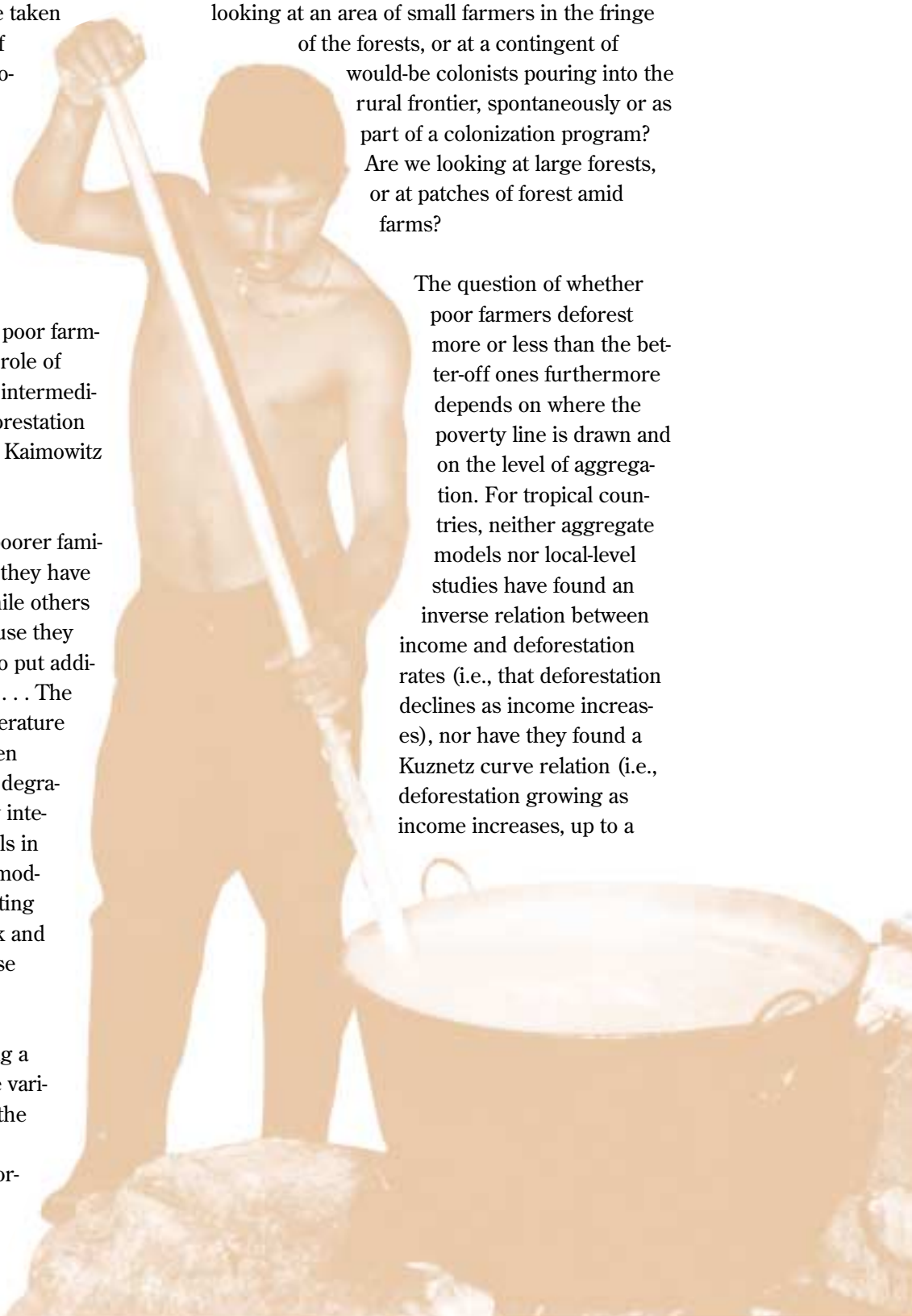
4. Are the rural poor a threat to forests?

While there are many cases of poor farmers cutting natural forests, the role of poverty as a major immediate, intermediate, or root cause of world deforestation is contested. Quoting from the Kaimowitz and Angelsen (1998) review:

> "Some authors argue that poorer families deforest more because they have shorter time horizons,…while others say they deforest less because they lack the necessary capital to put additional land into production. . . . The popular and professional literature often refers to a link between poverty and environmental degradation, yet poverty is rarely integrated into economic models in general, and deforestation models in particular. . . . [E]xisting models provide rather weak and conflicting evidence on these issues."

Part of the difficulty of reaching a definitive conclusion lies in the variety of circumstances in which the rural poor or other indigenous groups may be involved in deforestation. For example, are we looking at the interaction between remote forests and a sparse local indigenous population? Are we looking at an area of small farmers in the fringe of the forests, or at a contingent of would-be colonists pouring into the rural frontier, spontaneously or as part of a colonization program? Are we looking at large forests, or at patches of forest amid farms?

The question of whether poor farmers deforest more or less than the better-off ones furthermore depends on where the poverty line is drawn and on the level of aggregation. For tropical countries, neither aggregate models nor local-level studies have found an inverse relation between income and deforestation rates (i.e., that deforestation declines as income increases), nor have they found a Kuznetz curve relation (i.e., deforestation growing as income increases, up to a



point where the relation would reverse and deforestation would decline with further income increases).

There is also a time dimension. For example, in Africa it is the poor that are responsible for most forest cutting, but a lot of cut forest is allowed to grow back. By contrast, in the Philippines logging companies were first responsible for deforestation in the 1960s and 1970s; small farmers have since followed suit, preventing forest regrowth. In many cases, the rural poor are an immediate cause of deforestation processes that are driven by other intermediate and root causes; some of the worst episodes of deforestation, for example, can be attributed to sudden countrywide or regionwide shocks, such as economic crises, natural hazards, and major price and market changes.[4]

Rural poverty should therefore not be seen, per se, as a factor driving world deforestation. While it is true that in Africa, for example, most of the farmers that deforest are poor, it is far from clear that African farmers deforest because they are poor. Recent research in Africa and elsewhere shows that market and policy changes are far more important drivers of deforestation.

5. Forests as a source of current or potential income for the rural poor

It is important to consider also the relationship between the rural poor and the forest from the opposite perspective: What can the forest do for the poor? Most observers agree that forests are important sources of livelihood for the rural poor—particularly ethnic minorities, forest dwellers, and rural women. However, estimations vary widely regarding how many people and to what degree they rely on forests:[5]

> "The livelihoods of over 200 million forest dwellers and poor settlers depend directly on food, fiber, fodder, fuel and other resources taken from the forest or produced on recently cleared forest soils." (Barraclough and Ghimera, 1988)

> "Forest resources directly contribute to the livelihood of 90 percent of the 1.2 billion people in the developing world that live in extreme poverty." (Baird, 2001)

4. Geist and Lambin (2001) find that episodes of social disorder, crisis conditions, population displacement, and abrupt policy shifts are frequently associated with deforestation bursts in Africa and, to a much lesser extent, Asia and Latin America.
5. Byron and Arnold (1999), Cavendish (2000), D'Silva and Appanah (1993), and Kaimowitz and Paupitz (1999) present further national and regional evidence of the importance of forest services for the rural poor.

Forest services are particularly important for the poorest of the rural poor, and this fact alone provides a powerful reason to protect forests and the stream of services that they provide to poor rural dwellers. Then, while acknowledging that forests are of immediate importance to the rural poor, some analysts do not believe that forests have the ability to lift the rural poor out of poverty. They point to the fact that, as rural household income increases, the proportion coming from forest services decreases sharply and agree with Wunder in that:

> "A general conclusion is that, in most settings, natural forests tend to have little comparative advantage for the large-scale alleviation of poverty, especially compared to their great land use competitor, agriculture." (Wunder, 2001)

This statement describes the situation extant in some countries, but it fails to assess the full range of sustainable forestry benefits, and how a larger portion of these benefits could accrue to the rural poor. The benefits of sustainable forest management include the following:

- **On-farm and local benefits from harvesting and selling marketable products (timber and non-timber), plus other forest services. These benefits directly accrue to the rural households and communities that embark in sustainable forestry activities.**
- **Regional and national benefits from forest environmental services provided to the region or country at large; for example, erosion protection, water regulation, biodiversity conservation, tourism, and carbon sequestration. Little of these benefits accrues to the rural households and communities that engage in sustainable forestry activities, for example through increased land productivity or new market and employment opportunities in the conservation sector. By and large regional and national benefits are captured by downstream populations, particularly urban populations.**
- **Global benefits from forest environmental services; for example, biodiversity conservation, carbon sequestration, tourism, and scientific research opportunities. Again, little of these benefits accrues to the rural households and communities engaged in sustainable forestry activities, for example, through employment opportunities provided by international ecotourism, or through support from international nongovernmental organizations (NGOs). By and large, global benefits are captured by the international community.**

For understandable reasons, most local conservation programs focus on helping rural communities increase on-farm and local benefits, through

the introduction of land conservation or high-yield, multipurpose sustainable forest management, for example (Ruiz-Perez et al., 1999). Successes are rare, however, due in part to the low density of occurrence of most non-timber forest products and to management, processing, and market complications. To address these shortcomings, some practitioners are focusing on improving ecoagricultural techniques (McNeely and Scherr, 2001), and others on reforming market structures and national forest policies that discriminate against the rural poor (Scherr, White, and Kaimowitz, 2001).

Even if these proposals are successful, increased on-farm and local benefits may nonetheless be insufficient to make forest conservation attractive. Actually, unsustainable forest logging of natural forests may be the most profitable option when only market-based benefits are considered. (Pearce et al., 1999; Dixon, 1994). But this picture may change if the regional, national, and global benefits of sustainable forest management are included. Lampietty and Dixon (1995) estimate that in rich countries these types of benefits—and particularly the regional and national benefits—are three times greater than on-farm and local benefits. This explains in part the strong appeal of forest conservation among developed countries. In poorer countries, and particularly in tropical countries, the picture is different: while the regional, national, and global benefits of forest management in developing countries are roughly equivalent to on-farm and local benefits, they are mostly made up of global benefits—i.e., the ones accruing to the international community. If we are to increase the appeal of forest conservation among the rural poor and if we are to preserve the world's forests, it may be necessary to make significant income transfers from the rich urban population to the poor rural population to pay for the environmental stewardship services that the latter are asked to perform.

The provision of such transfers has its precedents. At the country level, for instance, there are many examples of payments that are made for watershed management services. At the international level, this type of transfer is an integral part of the European Union's Common Agricultural Policy, in the form of payments made to European farmers to care for Europe's countryside and environmental resources. It also provides the rationale for the Global Environment Facility (GEF) and for a large part of the activities of northern hemisphere NGOs in the south.

6. Where to go from here?

The overall message of this paper is simple: The conservation movement must address forest–poverty issues as part of its forest conservation policy.[6] Failure to do so would be to permit increased pressures on world forests that most probably would benefit neither the poor nor the forests. The ensuing question then is how to do it. Based on the preceding discussion, I would like to offer the following recommendations.

At the overall policy and programmatic level:

- **At a global policy level, the conservation movement should acknowledge explicitly that most forests around the world are not empty. This acknowledgement should include recognition that, particularly in developing countries, natural forests are an important component of rural**

6. As stated at the beginning of the paper, our purpose is to add to the existing forest conservation strategies (e.g., protected areas, forest products certification, and promotion of sound environmental practices among large logging companies, wood manufacturers, consumers, and governments), not to override them. The rural poor are just part of the larger deforestation picture, and we need conservation strategies that reach all major stakeholders.

livelihoods. National and international forest policies and the conservation movement should address both the sustainable management of natural forests and rural poverty alleviation; one should never be addressed at the other's expense.

- **The above guideline for global policy should be translated into specific targets linking forest conservation goals and rural poverty alleviation goals at the forest or ecoregion level. For example, the long-range WWF/World Conservation Union (IUCN) forest vision proposes that by 2050, 30 percent of the world forest should be community-managed. We should extend this approach to the establishment of specific percentages representing the rural poor's share of these community-managed forests.**
- **Given that many forest services do not carry a market price, the realization of sustainable rural environments and livelihoods will require that the urban world pay the rural world for its environmental stewardship services. The conservation movement should make this principle a key component of its forest policy**

At the project level, including policy research and advocacy:

- **Support should be given to ICDPs that increase the on-farm and local benefits of sustainable forestry and agriculture that accrue to the rural poor.[7]**
- **Local conservation activists and advocates should focus more closely on national policy and market issues, because the rural poor are clearly at a disadvantage when competing with politically and economically stronger stakeholders. It is imperative that these policy issues be addressed, because to be effective an ecoregion conservation strategy demands a broad policy approach. The concrete programs and interventions at the local level should be coupled with enabling policies at the national level.[8]**
- **In addition to on-the-ground projects, we should develop a policy research and advocacy agenda**

7. Scherr (1999), Arnold and Bird (1999), and McNeely and Scherr (2001) offer a good overview of pro-poor sustainable agricultural and forestry strategies.

8. Arnold and Bird (1999) give a good overview of forest plus poverty country-level initiatives, Scherr, White, and Kaimowithz (2001) discuss the market, institutional, and policy reforms needed to foster rural poor benefits from sustainable forest management.

related to the proposals above. That agenda would allow us to better understand and address local or country-specific situations, including country-specific forest–poverty dynamics, institutional and economic changes affecting forests, and ecoregion-specific forest management alternatives. To achieve this we need to strengthen the conservation movement's capabilities both for analysis and advocacy, and its ability to learn from, and partner with, other stakeholders in the conservation and poverty alleviation arena.

- Last but not least, we recommend that the conservation movement undertake a policy research and advocacy initiative to advance the proposal of paying the rural poor for regional, national, and global forest conservation services. Similar proposals have been made in the past (see Swanson, 1997, and Ferraro and Simpson, 2001), but what is different here is our focus on the rural poor. This focus would change the underpinning payment ethic (who pays and who is paid) and may increase institutional complexity (a large number of potential recipients). Local and international NGOs are nonetheless well-positioned to tackle both issues. What is needed here is a concerted effort to bring the pieces together in a coherent framework, and to move the proposal to the policy advocacy arena.

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