

BOOK REVIEWS

Land Tenure and Natural Resource Management: A Comparative Study of Agrarian Communities in Asia and Africa edited by Keijiro Otsuka and Frank Place, Baltimore, Md., Johns Hopkins University Press for the International Food Policy Research Institute, 2001, xxiii + 389 pp.

The book is a collection of country case studies covering Ghana, Uganda, and Malawi in Africa and Sumatra (Indonesia), Nepal, Vietnam, and Japan in Asia. The book is organized into ten chapters, out of which Introduction, Quantitative Methodology, and Conclusion are contributed by Keijiro Otsuka and Frank Place. Remaining seven chapters focus on country case studies which are contributed by various scholars in association with the editors of this compilation.

The main focus of the book is on land tenures—their evolution, various factors affecting types of land tenures and impact of different forms of land tenures on land use, land management, tree and forest management, and state of forests. Most of the existing literature on this subject is descriptive and narrative. This book provides quantitative treatment to the subject and issues which are not easily amenable to quantitative analysis.

The book proceeds in a very systematic manner from the beginning to the end. First chapter starts with the description of the severity of conversion and degradation of forests and woodland followed by a discussion on the role of property rights in shaping the use of agricultural and nonagricultural natural resources and their interactions. This chapter also provides a theoretical framework for empirically testing various hypotheses concerning land tenure and natural resource management, though most of these theoretical methods are not actually used in the country case studies.

The quantitative methodology used in the country case studies is more aptly presented in the second chapter. Given the difficulty of the issues selected for the study for empirical tractability, the authors followed a two-way approach—extensive study as well as intensive study in each country. Extensive study analyses involve various factors representing natural environment, population pressure, policy, commercialization, and social environment on the incidence of different types of land tenure in a regression framework using geographic locations (regions) as the unit of the study. For further in-depth probe into the selected issues, the intensive study was carried out using “household” as the unit of investigation. This also helped capturing the impact of household specific characteristics on the investment in land and trees, land productivity, labor use, crop profitability, etc. The methodology developed by the authors is so subtle that it could be applied across diverse countries and their specific situations. This has been quite useful to generalizing policy conclusions and testing various hypotheses in different situations.

Case study of Ghana is presented in Chapter 3. Agroforestry management is selected to

represent a case of natural resource management in that country. This, and also other country case studies, elucidate with brevity that customary rules of the tenure system are circumvented to transfer land to one's wife and children. This conveys a clear message that where the traditional tenure (system) conflicts with the changes in material values, there would be a tendency and pressure to change it. This is how land tenure and other institutions have evolved over time. This is also brought out, though mildly, by the results of determinants of the proportion of the area under different land tenure institutions at the village level. Another very important finding of the extensive study for Ghana is, that, under all land tenure types, migrants put more area under cocoa trees and harvested a higher yield compared with the local households, barring single exception of rented land. This shows that human ingenuity works and responds sharply to stress or other challenging situations. Another interesting inference from the extensive study (not elaborated by the authors) is that those who are not fortunate to acquire wealth through inheritance, or are deprived, participate more in market institutions to grab the opportunities.

In the intensive study, education of the head of household is shown to have a significant positive impact on the acquisition of land through inheritance, gifts, and allocation. This relationship can also hold the other way round, implying that households who acquire more land through inheritance have better resources to provide education to their members. Overall conclusion from the Ghana study is that customary land institutions have evolved toward individualized ownership which provides appropriate incentives for the development of cocoa (agroforestry system).

Like in Ghana, agroforestry management is taken to represent the system of natural resource management in the Sumatra study (Chapter 4) which shows the erosion of the traditional matrilineal inheritance system and emergence of individualized tenure. Extensive study on the determinants of land tenure choice in Sumatra uses separate regression equations for tenure type under paddy fields and agroforestry plots. Here some of the signs of regression coefficients are counterintuitive, the reason for which seems to be that proportion of the area under paddy fields and agroforestry plots are treated as independent of each other. Households do not make such choices for land allocation independently for different uses. Similarly, the regression equations on the determinants of forest clearance need a different interpretation. The authors observe that the hypothesis that the development of profitable agroforestry deters deforestation is not supported by their data. Here the confusion arose due to the mixing up of clearing of forests to bring more area under agroforestry (to get more profit) and clearing of forests to meet economic needs for forestry produce. The authors have missed the former motive. Where agroforestry is more profitable, there would be a strong tendency to increase the area under it by clearing forests where such possibility exists.

In Sumatra, the proportion of purchased land in total land acquisition increased from below 15 per cent before 1970 to about 70 per cent in the 1990s. Here some discussion on the working of the land market or legal framework for land transaction would have been useful.

Tree and cropland management is selected for the study in Malawi presented in Chapter 5. There is hardly any role of the market in land acquisition which is entirely determined by village headman, husband, or wife. Proportion of land acquisition through wife witnessed a tremendous rise during the last three decades which is a pointer to the evolution of land tenure in Malawi.

The study shows that the setback to the production of maize, which is a food staple in Malawi, due to a decline in yield has been compensated by the expanding cultivation in areas under woodland and is having serious implications for deforestation. This points to the role of technology in raising productivity and in mitigating pressure on natural resources. Though it involves gender aspects, the intensive study clearly demonstrates that patrilocal and patrilineal systems of land tenure provide better incentives for investment in agriculture, particularly for the male who is the key decision maker, than those in the matrilineal system.

Case study of Uganda (Chapter 6) focuses on customary and private land management to analyze the impact of various land tenure types on land, trees, and forests. Introductory part gives an excellent account of the adverse impact of political uncertainty on agriculture performance and rampant destruction of natural resources. The study showed that tree plantation that helps in increasing tenure security provides a strong incentive for planting trees. Like in the other country case studies, individualization of land rights in the case of Uganda is found to promote investments as well as land rental markets that improve land use efficiency

The cases of Vietnam (Chapter 7) and Nepal (Chapters 8 and 9) are different from the situation and nature of tenure in the other countries. In Vietnam, the state has played the central role in shaping changes in land tenure and control over land and forests. During the last two decades, the government had introduced several reforms to dilute collective ownership and to promote individual rights over land and forests. The impact of these changes has been studied on rice production, crop intensity, and deforestation. In the extensive study, per capita lowland area at various locations has been used as an explanatory variable in the equations for per capita rice production. Obviously, the larger the per capita lowland area, the higher would be the per capita rice production. So this relationship does not reveal much. Instead of this, some other variables like productivity per unit of land could give some insight into the role of technology in production. The role of technology seems particularly important as the authors observed that the low productivity of collective farming under the commune system coupled with unclear ownership rights has been a significant cause of deforestation. The study for Vietnam demonstrates that private property rights have resulted in reduced deforestation and more reforestation. This is in contrast to the case of Nepal where community management of forests is considered to work well for the benefits of the local people.

As Nepal consists of two distinct topographical regions, it is desirable to distinguish these two regions. One part comprises mountain and hill areas and the other part comprises a flat plain land called Tarai region, somewhat like a valley area. About half of the land area in Tarai is under cultivation whereas in the mountain and hill region only about 12 per cent of the land area is under cultivation. Also, agriculture in Tarai is relatively more advanced than in the hill region. Due to these variations, the nature of forests and dependence on forests are markedly different in the two regions and the authors have rightly taken up two case studies for Nepal to represent the two distinct situations.

Common property forest management is taken as the case of natural resource management in the hill region of Nepal (Chapter 8). In the country description, it needs to be added that like Malawi, Nepal is a landlocked country. Second, information in the chapter about the political situation in Nepal, that is a very important factor for the low level of economic de-

velopment of this country, is inadequate. This country is having several forms of formal and informal models of community forest management, some of which are promoted by the government, while others operate or have been developed under the initiatives of the local people themselves and domestic and international NGOs. The present study classifies forest management into two major types, viz., formal user groups patronized by the government forest department and informal user groups which are operated officially by the government.

Extensive study in Nepal explains the causes and consequences of forest user group management. The study found that degraded forest conditions causing stress on lands stimulate the formation of user groups, and formal groups are found to be more effective in regenerating trees than the informal groups. The latter part is corroborated by the intensive study.

Chapter 9 provides a comparative picture of timber forest management in Japan and Nepal. Interestingly, the similarity in forest management rules in prewar Japan and contemporary hill forests in Nepal, as observed by the authors, indicates that at similar stages of development two different countries have a similarity in natural resource management practices. Like in Vietnam, the situation in Japan favors individualized management for better protection and management of trees. The authors have nicely brought into picture the case of Nepal to draw a distinction between various aspects of tree and forest management where individual management and collective management serve effectively.

Lessons drawn from diverse country studies and their policy implications for different regimes of property rights for land, tree, and forest management are elucidated in the last chapter by citing specific situations. This chapter draws generalizations and also highlights contrasts, while specific policy implications for each country are presented at the end of each case study. The concluding chapter describes common types of property rights institutions in Asia and Africa, their evolution, and in turn, the effect of various land tenure and property right regimes on natural resource degradation. It discusses the economic conditions and circumstances which motivate or discourage people to participate in forest protection and management. Some important policy lessons are that forests are not well protected under a state ownership system nor are common property regimes always viable for preserving forests and woodlands. The best management system is a combination of collective and individualized systems for various tasks. Common property management can work when the predominant output is of common use and low value like minor forest products and private tenure system is the best when the products are valuable and depend upon management of the resources. Property rights create favorable incentives for efficient natural resource management. Markets and infrastructure like roads are critical to provide profit incentive to grow and manage timber trees and to enable rural people to come out of poverty. Problems of deforestation and land degradation are intertwined with poverty and food security and there is no simple or single solution or approach to address these problems. The book strongly emphasizes multifaceted solutions involving efforts to raise the profitability of agriculture-based activities through technology development and market improvement and strengthening of natural resource management institutions to address the complex and interwoven problems of rural poverty, food insecurity, and natural resource degradation.

The authors have undertaken a formidable task of analyzing the impact of various land tenure systems, property right regimes, policy variables, and social and physical variables on the management of land, trees, and forests and their interactions in a quantitative framework.

The analytical framework has been suitably modified and developed to suit and capture country-specific situations. The study has followed a purely objective approach and has drawn lessons and implications by confining to empirical findings. The book is the first comprehensive and comprehensible analysis of natural resource management based on simple quantitative tools. It can be easily grasped by readers from various backgrounds. The book would be particularly useful for policy planners concerned with natural resource management. It has beautifully and elegantly captured the impact of systems of land, tree, and forest management and property right regimes on natural resource management as relevant under different situations. It reveals what are the common lessons for natural resource management in diverse situations and what are the specific lessons for each situation.

(Ramesh Chand)

Vietnamese Agriculture under Market-Oriented Economy edited by Kenji Cho and Hironori Yagi, Hanoi, Agricultural Publishing House, 2001, x + 348 pp.

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The agricultural sector in Vietnam has often been cited as a successful case of “*doi moi*,” the “renovation” policy which introduced the market mechanism to production and marketing, and which has led, since the mid-1980s, to an enormous increase in agricultural production. Many academic papers (both in Vietnamese and in English) as well as government reports have emphasized that three sets of policy reforms have been of critical importance as regards agricultural development in Vietnam. These policy reforms include Directive No.100 of the Politburo of the Communist Party of Vietnam Central Committee (CPVCC) of 1981, which allowed individual farmers’ decision making, albeit of a limited kind, in production processes; Resolution No.10 of the CPVCC of 1988, known as “Contract 10,” which marked the shift from a partial to a complete contract production system; and the Land Law amendment of 1993, under which rights to use farmlands were allocated to individual farm households.

Many previous studies of Vietnam’s agricultural development have focused too strongly on the impact of these three sets of policy reforms, and have not scrutinized the socioeconomic, physical, technical, and institutional aspects that have helped market mechanisms to function well during the transitional period in Vietnam. It is true that these policy reforms provided the basic conditions for Vietnam to become what this book terms a “market-oriented” economy. However, as the book’s findings demonstrate, it is oversimple to attribute the recent growth of the agricultural sector in Vietnam to the implementation of these three policies alone. The book, having recognized the importance of studies on such aspects, contains detailed reviews of various reform policies towards agriculture as well as the findings of field research on the impacts of these reform policies. The book is the outcome of research activities, carried out continuously between 1994 and 1999, by agronomists and agricultural