

Impacts of Forest Tenure Reform on Livelihoods: Experiences from Nepal

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Abstract

This paper analyses the impacts of forest tenure reforms in Nepal on livelihoods, income, forest condition and equity (LIFE). Tenure reform process that began during late 1970s was institutionalised during early 1990s has promoted decentralised and participatory processes in forest management. These reforms towards increased community tenure have significant positive impacts on all the LIFE indicators but have relatively better results on forest condition and livelihoods. Though the impacts on equity and income are relatively small, institutional innovations on the ground and policy responses for increasing community tenure are showing optimism of addressing equity issues and increasing household income through community forestry.

Key words: *Forest tenure, reform, community, livelihoods, income, equity and forest condition.*

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Introduction

Nepal's reform process in forest sector particularly the community forestry and participatory conservation are well known in the world (Pokharel et al. 2006). Despite its poor records in poverty reduction, continued political crisis and violent conflict, Nepal is often appreciated for its inspiring policies on community based forest management and nature conservation. A number of initiatives have been taken towards decentralised and community based management modalities namely community forestry (CF), collaborative forest management (CFM), leasehold forestry (LF), religious forests (RF), conservation areas (CA) and buffer zone community forests (BZCF).

Some of these initiatives are well mature and others are quite new. For example while CF began since 1980s, the CFM was introduced only after 2000. Each of these initiatives has different management objectives, institutional modalities and scale of operation (Table 1). Although there are individual project reports and impact studies on these initiatives, little attempts have been made to carry out a comprehensive study on the outcomes of forest decentralisation and participatory initiatives in Nepal. More importantly, these studies have assessed the overall outcomes of these initiatives as project intervention without taking consideration of the effects of external resources/efforts that are often embedded with these policy interventions. Consequently it has obscured the analysis of actual outcomes of tenure reform.

The paper is based on both literature review and primary research in four sites across Nepal under the CIFOR-RRR research project on forest tenure. The study has drawn more specifically from the secondary data, interviews with key informants, observation and authors' extensive experience on the community based forest management. The paper has four major parts. The second part describes a brief history of forest tenure reform in Nepal. The third part summarises the outcomes of tenure reform in four different aspects: livelihoods, income, forest condition and equity (LIFE) situations. The fourth part analyses the outcomes under the heading –discussion and the fifth part concludes the paper.

Forest tenure reforms in Nepal

Forest tenure in Nepal can largely be discussed in three distinct phases: a) until the Rana rule (1950); b) during the forest nationalized phase (1957-

1980s); and c) the decentralized and participatory management phase (1980 onwards). These three phases also have distinct socio-political features and therefore adopted different approaches towards forest tenure arrangement.

a) Until Rana rule (1950)

Before its formation as a nation state in 1769, Nepal was divided into dozens of mini states. Although ruling elites were secured their absolute rights over certain forests patches or species of timber, most of the forests were largely owned by the communities and indigenous practice were in operation. After the unification by the Shah Kings, valuable forests in the Terai were seen as the sources of revenue. The land and forests were distributed to members of the royal family or senior bureaucrats in the form of Birta or Jagir. Many of such forests were cleared off, timber sold to India and forests were converted into farm lands ensuring permanent source of revenue. Apart from these large tracts of private forests particularly in Terai, most of the forest were under de facto ownership of the local communities who had been managing them.

b) During the forest nationalized phase (1957-1980s)

As most of the valuable forests were under the private ownership that is again with the close allies of the Rana regime, the new government decided to nationalize all the private forests in order to protect, manage and utilize the nations forest to improve economic welfare of the people and the country. Once the forest were made nationalized, legal framework were developed to protect the forests from ordinary citizens including traditional forest users.

The nationalization of forests was followed by the Forest Policy 1961 that strengthened state ownership of and authority over forests. The policy defined all lands except privately owned agricultural lands as forests. Any land that fell within this broad definition was brought under the jurisdiction of Department of Forest. Landowners and peasants who were holding forested land began to clear it and cultivate so that large area of forests were converted into farm land to ensure private ownership. As a result forest area decreased from 51% to 45.6% by 1964.

In order to halt deforestation trend and ensure forest protection, the government brought the Forest Protection (Special arrangement) Act 1967. The Act declared all illegal forest management activities as state crime so that people could be sued in court and sent to jail. The District Forest Officers (DFOs) were authorised to arrest the offenders, to see the cases and to punish. They were given undue power in the name of forest protection.

Despite all these provisions deforestation continued that forest area decreased from 45.6% (in 1964) to 35.7% (in 1977).

During this period several protected areas (PAs) were also established in the country. Beginning from 1973, the government established over 16 PAs covering over 19.7 percent of the country's territory. The Nepalese Army has been involved in protecting the PAs and very stringent rules were brought to keep people away from them. In fact, the development of PA system in Nepal can be identified with the displacement of indigenous local communities, denial of traditional and customary practices, prohibitory rules towards resource use and several cases of human rights abuses.

c) Decentralised and participatory phase (1980s – till date)

The seeds of tenure reform debate were sown since the 9th Forestry Conference in 1974. Since 1978 began the decentralised era in forest governance. Having learnt from the failure of nationalisation and strong centralised legal frameworks, the government began to experiment with the decentralised management through the local government bodies. The government then handed over forests as Panchayat Forest (PF) and Panchayat Protected Forest (PPF) to the local Panchayats so in order to involved them in forest management and to meet local forest product need.

In the mean time the Master Plan for the Forestry Sector - major policy document was prepared and endorsed by the government in 1989. During the same time, Nepal experience one of the major political changes that ended the direct rule of the Monarchy and established the parliamentary multiparty system. The political parties that were fighting for democracy for over three decades came into power.

The new political environment gave rise to forest tenure reform during early 1990s. These reforms were coded in several legal documents such as Forest Act 1993, Forest Regulations 1995, Buffer Zone Regulations 1996, Conservation Area Management Regulations 1996/2000 and Leasehold Forest Policy 2002; that institutionalized the process of tenure reform process.

The earlier reform process were limited to de-concentration of power from the central government to the lower level agencies or such as DFO or the local governments such as Panachayats. Tenure reform process during the 1990s and later were fundamentally radical that involves transfer of power from state to communities. A number of community based forest management modalities such as community forestry, leasehold forestry, conservation areas, buffer

zone programme, are direct involvement of local institutions in forest management. The major areas and forms of tenure reform initiatives are summarized in **Table 1**.

Table 1 Major forms of tenure reform initiatives

Modalities	Management objectives	Institutional arrangement	Scale of operation
Community forestry (CF)	Fulfil subsistence needs and enhance livelihoods	Part of national forests are handed over to the locally formed (CFUGs) who manage the forests through executive committees directly elected by all the users	Over 15000 CFUGs operate mainly in the hills, have largely met their need on for fodder, fuelwood and NTFPs
Collaborative management of forests (CFM)	Increase Terai forests' contribution to national economy, make available forest products to all Terai people	Selected large tracts of Terai forest are handed over to the CFM groups, with representatives from different stakeholders including government agencies, civil society organisations and local communities. Government forest officers play key role in shaping the management	Only 4 CFM operate in central Terai in an experimental basis
Leasehold forestry (LF)	Enhance livelihoods of the forest dependent poor, rehabilitate degraded forests	Small patches of (5-10 ha) degraded forests are handed over to the small groups of identified poor (5-11 households) fro 40 years lease	2871 such groups in 26 districts benefiting about 23,343 poor families
Buffer zone Community forests (BZCF)	Fulfil local demands for forest products in order to reduce pressure on protected areas	Patches of BZ forests are handed over to the locally formed CFUGs under a tripartite agreement between park warden, CFUGs and the buffer zone user committees.	58 BZCF operate in Cthiwan and Bardia national parks
Conservation areas (CAs)	Meet both conservation and livelihoods needs of local people	Several VDC level committees- Conservation are management committees (CAMCs) operate in Annapurna and Manaslu CAs	?

In fact, these legal instruments have been the key legislations that shape the tenure arrangement since then. The major features of these Act and Regulations were legal recognition of the CFUG, provision to handover accessible forests to CFUGs, priority of CF over other programmes, DFO were authorized to handover forests, CFUGs were authorized to fix the price of their forests products and spend any surplus funds in development activities.

Community forest hand over increased rapidly after 1993. The enthusiasm however, appeared to have gradually ceased so that there are minimal handover after 2000 particularly in Terai. In the mean time the government has brought Forest Policy 2000 that emphasized on key role of state in managing Terai forests. Collaborative Forest Management (CFM) is being promoted in Terai currently in experimental mode.

Leasehold Forestry (LF) is yet another model that put special emphasis on linking poverty alleviation with environmental conservation. Small patches (5-10ha) of degraded forests or shrubland are handed over to an identified poor households under a 40 year lease contract, that is extendable to additional 40 year upon satisfactory performance. Currently the program is operating in over 26 districts (during 2002/4) and is expected further expand.

Nepal's feudal social structure led by the long ruling monarchy has strong influence over the forest tenure. The feudal ruling class appropriated most of the country's valuable forests often through the exploitative state bureaucracy. Since the 1960s, environmental imperatives provided an additional rational for centralized management that largely denied local rights over forests. Along with the advent of participatory approaches in rural development and resource management, the government introduced a series of tenure reform measures. Currently, several reform processes are undergoing including a different modalities of community based management. This section provides a brief description of these reform processes particularly since the late 1980s.

The governments at different times imposed heavy taxes or ban on harvesting of the selective tree species or forests products. Taxes have been imposed on all valuable tree species such as sal and sisoo. ban on harvesting of certain species of trees are often based on environmental ground. Hunting ban was imposed often in favour of securing royal hunts or on environmental grounds.

Tenure reform began since the 9th Forestry Conference in Kathmandu (Nagendra et al. 2005). The government began to involve the Village Development Committees (VDCs), the local political bodies in managing the forests. The model however, gradually changed towards a community based so that there are several modalities of community based forest management.

Outcomes of tenure reform

Forest condition improvement

Reforms on forest tenure from state control to community ownership have significantly improved forest condition in Nepal (Pokharel et al. 2007; Dev et al., 2004). In fact, tenure reforms have been recognised as the key policy intervention that could effectively reverse the heavy deforestation during the 1960s and 1970s (Pokharel and Kanel 2002). A number of studies have shown an increased forest cover and biodiversity due to decentralised and community based management of the forests. Branney and Yadav (1998) based on a survey of community forests in eastern hill districts has revealed an overall improvement in the forest condition particularly growth of young stems that will lead to regeneration. They observed 29% increase in basal area and 51% increase in stems per unit area. Similarly, Jackson et al. (1998) found that shrubs and grassland had been converted into more productive categories of forest land. In an important study on land use change in central hills, Gautam et al. (2003) found an increase in broadleaf and conifer forest and decrease in shrubland/grassland between 1976-2000. Similarly, there was a significant decrease in number of forest patches during this period suggesting merger of patches. Evidences from a study by Dev and Adhikari (to be published) in community forestry has also confirmed this assertion. It is important to note that public perception on forest cover change perfectly matches with the academic and professional studies. According to a LFP survey in 2003, over 72% respondent in eastern hills and over 93% respondents in western hills responded positively that forest condition is improving.

While most of the above studies are focused on impacts of CF programme similar findings have been observed in other modalities such as LF, BZ, CA and CFM. Mukharjee (2003) in a study under LF in few hill districts observed growth of grass, regeneration of sapling, development of greenery and decline of Khorja cultivation. Similarly, a steady increase in forest cover was found in a study involving different LFs – 50% increase in 2 year old, 68% increase in 4-5 years old and 78% in 6-7 years old forest (Singh and Shrestha, 2000). A report on LF project study records that 84 % of project households reported fewer months of grass/fodder scarcity despite increased number of livestock (FAO, 2000; as quoted in Singh and Chapagain, 2006).

Though there are some criticisms on the role of community based forestry in biodiversity conservation because some of the management practices may not encourage biodiversity conservation (Acharya 2004), other studies suggest that after community forestry the biodiversity has increased

significantly (Branney and Yadav 1998). Improved forest and biodiversity condition are being reported in PA buffer zones as the result of the buffer zone programme (New ERA 2004; Paudel et al, 2007; Paudel and Bhatta 2007).

Impacts on income

There are two important aspects of impacts of tenure reform on income: a) the communities are yet to harness full income potential of their forest; and b) earned income at community level is largely spent in community level physical infrastructure development with limited contribution on increase in direct household income. Though Kanel (2004; 2006) found a significant income being generated from community forestry as compared to the revenue generation by the large areas of government managed forest, there are some estimates, for example Bhattarai and Dhungana (2008), which show that the CFUGs have harnessed less than 40 percent of the potentials of their CFs. Low forest based income can be attribute to mainly three factors: a) prevailing conservationists view on forest management and associated constraining regulatory framework; and b) Imperfect/underdeveloped market and poor capacity of the forest users to engage in value chain c) prevalent heavy hidden subsidy being benefited to the relatively well off members (Bampton and Cammaert 2006; Iverson et al. 2006).

Forest management in Nepal has long been influenced by environmental discourses derived from the Theory of Himalayan Degradation (Eckholm, 1976). Consequently, conservationist view has largely dominated the policies and practice of forest management. The conservationists views are reflected in regulatory framework that often constrain forest product sale and enterprise development (Bhattarai and Dhungana 2008; Timsina 2005).

These policies are based on implicit assumption that increased market transactions may threat sustainability of the forest resources. Bampton and Bruno (2007) have demonstrated how constraining regulations has led to reduced timber rent through discouraging timber sale in open market. Similarly Iverson et al. (2006) have shown that the widespread hidden subsidy practiced by the CFUGs has reduced the overall income made by the CFUGs through timber sale.

The second factor for low forest based income is the imperfect or underdeveloped market for forest products and poor capacity of the forest users in engaging with this market. There is little local market available for

forest products apart from timber. They are either sold in India or exported to third country often via Indian channels. Often there are numerous intermediaries along the long value chain that make the whole business inefficient and less profitable (Subedi 2006). The worst victims are the primary producers who share very small part of the consumer price. Therefore, despite huge potentials of NTFPs as indicated by the literature, little income has been earned from the forest products.

Another aspect of forest based income is governance of the income and its investment pattern. Large part of the forest based income goes to the local groups such as CFUG, CFM group and BZCF group. These incomes are often invested in infrastructure and other community development activities which may have little direct benefit to the individual households. The poor in particular benefit even less from conventional community development activities. There are only few activities though which poor households have benefited – employment in forest management activities and community development activities funded by the forest based income, and pro-poor income generation activities. According to Kanel (2004), only about three percent of the total CFUG income is spent in pro-poor activities. The current scenario of poor performance on contribution of community based forestry in increase income at community and household level (particularly of the poor households) is being changed through several practical innovations. For example, to increase the pie of the community, there are several initiatives made in the four research sites through enterprise development, more efficient management practices and better access to the market for timber and non-timber forest product. Similar successes are also reported elsewhere (Pandit et al. 2008; Subedi 2006). For transforming community based forest governance to make it more inclusive, gender sensitive, pro-poor oriented and livelihoods improvement cantered, there are several methodological innovations are being made (Banjade et al. 2007, Mahanty et al. 2005; Pandit et al. 2008).

Impacts on livelihoods

We conceptualise livelihoods in terms of capital assets – natural, physical, social, human and financial. A general improvement in all types of capital assets has been observed due to the tenure reform. As we discussed earlier tenure reform has significantly improved the forest condition including biodiversity. This in turn has improved the mobilisation of the resources and therefore has increased the flow of ecological goods and services. Rural people have particularly benefited from increased supply of forest products like fodder, fuelwood, timber, NTFPs, and services such as sources of water,

maintenance of soil fertility, and stabilisation of climate. As a result food deficiency was found to have declined (FAO 2000).

Since the forest tenure reform has largely transferred management responsibilities to the local groups, it has promoted various community based institutions, thus enhancing social capital. Consequently, the local people have formed various groups and sub-groups, their networks, have built alliances with other civil society organisations and coordinated with local governments for development activities. For example, they have formed national networks such as federation of community forest users group Nepal (FECOFUN), cooperative of LF user groups, a VDC level committee of conservation area management committee (CAMC) and association of collaborative forest user group Nepal (ACOFUN). Many of the local groups have also formed networks based on issues or territories (or political boundaries) such as a VDC level coordination committee (in Lalitpur), NTFP network (in Nawalparasi). Moreover, they have established functional coordination with the local governments for building synergy in various development initiatives. As a result, the local forest management groups have become the windows for development activities, conflict resolving mechanisms, including peace building and democratising society (Pokharel et al. 2007).

The investment pattern becomes different based on the tenure security and its temporal dimension. While the poor members of CF are reluctant to invest their time and resources in transforming allocate land for long run (they generally are given the land for less than five years with possibility of extension of the lease), the leasehold groups within Leasehold Forestry Programme are putting their best efforts in improving land use pattern (the lease in this case is of 40 years). The saving and credit groups within the leasehold groups have also been helping them. It has reduced the dependency on money lenders. Long-term tenure is the incentive for investment of labour and other inputs

Development of rural infrastructure is one of the major achievements of community based forest management particularly the CF in Nepal. The CFUGs and other similar groups in four research sites (and elsewhere in Nepal – see for example Kanel 2004) have invested a lot of money and labor in building roads/trails, irrigation canals, school buildings, health posts and other community buildings. A large part of income from forest management

activities are being invested in community development activities which largely focus on physical infrastructure.

The community based forest management has also contributed to raise income of the groups, particularly through generating forest based employment, pro-poor enterprises. The details of changes have been discussed above under the heading 'impacts on income'.

Similarly, promotion of community based management is coupled with capacity building of the men and women in both technical matter and political leadership. Due to the series of training, reflexive workshops, exposure visits and interactive dialogue with external actors including government officials the community people have gained confidence, skills to articulate their interests and concerns and skills for public leadership. They also have learnt several aspect of technical management such as record keeping, preparation of operational plans and group constitutions and various forest management activities. Ownership of small agro-enterprises (like goat keeping, dairy animal keeping, bee keeping, vegetable farming and the like) have increased contributing significantly on the household level income at the same time improving technical skills and confidence of relatively poor and weaker sections of the society (human capital).

Equity

When massive deforestation and forest depletion in Nepal was mainly attributed to the failure of centralized form of forest management and ignorance of the existing indigenous forms of forest management modalities at local level, the initial attempts of decentralization was for transferring some of the government's power and management responsibilities of forests to the local communities. These efforts mainly assumed local communities as homogenous and often resulted into the reinforcement of local inequalities and power differences (Agrawal 1997; Malla 2001) constitutive of the hierarchical caste, class, gender and geographical relationships (Banjade et al. 2004). The overall social relation of power is reflected in the overall governance of community forests and distribution of benefits thus generated.

Fairness of representation, participation, costs and benefits distributions are conceptualized as equity which is also equated with justice by some (Timsina and Ojha 2004). By equity outcomes of the reforms of forest tenure we are analysing equity in decision making, and in sharing costs and benefits. Different literature have highlighted some outcomes and given less attention

to others. There is plethora of literature on the equity impacts of forest decentralisation, particularly of community based forest management.

For example, equity in Nepal's forest governance and management is often understood in terms of the share of relative costs and benefits from forests management. Adhikari (2004) has analysed transaction costs of community forestry processes and found that the poor people are bearing relatively higher costs than the higher class people. He has calculated both the labour costs in conserving the forests and opportunity costs forgone because of resource sacrifice due to restrictive use. He reveals that the poor people are providing voluntary labor sacrificing their opportunity costs. There are other studies which show that community institutions for forest governance are less sensitive or against the livelihoods of the poor people (Banjade et al. 2007).

Others have estimated the benefits distribution and included use of forest products such as fodder, fuelwood, timber, various NTFPs and environmental services such as sustained supply of water. Analysis of financial benefits from the community forests and their distribution is also a part of analysis while dealing with equity issues in community forestry areas. The financial benefits particularly through the CFUG funds and their contribution in community development initiatives through CFUG funds are generally very high (Kanel 2004; Kanel 2006), though the questions are raised if poor people and other disadvantaged groups are equally benefiting from these initiatives as the more well off members. A number of studies have shown that the disadvantaged groups have little benefited from the current development activities funded by the local forestry groups.

The equity associated with the distribution of symbolic value is even worse. The symbolic value is often associated with the specific positions held by the individuals and their involvement in various political and social activities. Since relatively well off people have been represented in the local forest institutions, it has helped them raise their symbolic capital. Consequently, there is huge injustice in terms of symbolic value between the influential and less influential people (Ojha 2006; Sen 1992). There are concerns raised on the real participation of women and marginal groups in the public decision making forums and found that even if these groups are fairly represented they corroborated the notion of 'participatory exclusion' (Agarwal 2001) or the mere spectators and legitimizers than the contributors (Nightingale 2002).

Diversities are observed among several community forestry programs in Nepal in relation to the sensitivity on addressing equity issues. For example,

while leasehold forestry (LF) is exclusively targeted to the poor people the scale of operation is too small to be able to provide replicable lessons and insights from this. The capacity of the poor only groups in transforming their own agency and trapping livelihoods opportunities is still a big question. However, women's participation has also improved in LF. Similarly, Buffer Zone (BZ) community forestry has adopted the concept of specially targeted group (STG) in developing interventions in the BZ area, it is blamed to be elite dominated. Though community forestry is considered more equitable, there are 14 % are Dalits, 30 % are Janajatis and 56 % are from higher castes in the CFUG decision making body (DOF 2007). This is still worse when analysed from the key positions – there are 4 % Dalits, 34 % Janajatis and 62 % higher castes in chairperson's position. Out of them only 8 % chairpersons are women, but their representation in co-chairperson and treasurer is 27 % and 34 %, respectively.

Initial less sensitivity of the community forestry programme on issues of equity, livelihoods and sustainability has been discussed in the later period and made several policy responses and institutional innovations. These policy responses and field based institutional and practical innovations show that there are ample opportunities and possibilities of orienting community forestry as a role model programme for ensuring equity and inclusion at the same time improving forest condition, increasing income and improving livelihoods of the forest dependent people (Timsina 2004; Banjade et al. 2007; Pokharel et al. 2007. Banjade and Ojha 2005) These studies suggest that improvement in equity in decision making and benefits sharing can be achieved with the careful policy and institutional innovations which targeted both the agencies and structure.

Some of the positive attempts for poverty reduction, inclusion of excluded in the decision making and benefits sharing processes in community forestry include: a) CF has developed a system of at least 50 % women in all committees or beneficiaries; b) the membership of CFUG include the the name of women; c) women's exclusive groups have also been formed and they have, in general, more successful; d) quota has been fixed for the Dalits in executive positions; e) for the poverty reduction and improve the access of the poor, exclusive groups of the poor users have been formed and given exclusive rights in certain activities such as planting NTFPs within CF; f) women targeted activities are emphasized; g) in some forest user groups, the forestland is allocated to conduct income generation activities for the identified poor families based on well being ranking; h) many CFUGs are providing scholarship for students of poor families.

Conclusions

This study has described the impacts of forest tenure reform in Nepal in livelihoods, income, forest condition and equity. In general positive outcomes have been observed in all aspects. The discussion can be concluded in the following key points.

There has been a significant improvement all LIFE indicators particularly in forest condition that can be attributed to the tenure reform since 1980s in Nepal. Until then massive deforestation and environmental degradation was witnessed which is largely linked with nationalisation of forests and exclusion of forest dependent rural population. This insecure tenure arrangement led to the alienation of ordinary citizens from their own resource base that is largely attributed to the resource degradation along with other economic and social evils. The reform that began since the late 1970s and particularly during early 1990s is clearly seen to have positive impacts on all LIFE indicators.

Secondly, the level of outcomes varies with the level of tenure security. It is observed that as CF provides relatively stronger tenure security, the economic, social and environmental outcomes are also encouraging in this case. On the other side, these outcomes are relatively less visible in case of BZCF and CFM as little authority is delegated in these cases.

Thirdly, the level of tenure security alone has little meaning unless the resource in question has a potential to contribute to these outcomes. For example, although users in LF enjoy more autonomy in terms of managing their resources (not the existing timber), they have not benefited in that scale as their resource endowment is very poor. On the opposite, users of BZCF may have benefited more even relatively restrictive policy operate there.

Fourthly, the analysis of the equity shows that many aspects of the relation between state and local communities get reproduced in the relation between local elites and the ordinary citizens. Poor equity outcomes to a large extent can be attributed to insecure forest tenure at the household or individual levels. It also shows that although a significant part of the forest have been handed over to the communities, many social groups and individuals have yet to get a secure tenure over their resources.

Along with these points the paper concludes that though inadequate and partial, forest tenure reforms have proved very promising outcomes. Based on

Nepal's experience both forests and forest based people benefit from tenure reform.

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