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Dynamics of woodchip trade between Australia and Japan, and need for international cooperation of forest advocates

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The Dynamics of Woodchip Trade between Australia and Japan, and Need for International Cooperation of Forest Advocates

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Date
The Dynamics of Woodchip Trade Between Australia and Japan, and Need for International Cooperation of Forest Advocates

Abstract

Japan imports more than 25 million cubic-meters of woodchips from various countries in the world to use these chips as raw materials for paper. The significant amount of the imports makes Japan the biggest woodchip importer in the world. Japan has many woodchip exporters, and Australia is one of its important exporters. However, logging operations for exporting woodchips in Australia have had negative impacts on Australian native forests. The significance of woodchip demand from Japan and the relationship between demand and the impacts on the native forests has led the people who are concerned about this problem to view Japan as the catalyst.

Australian forest advocates have addressed this environmental problem for years. However, their efforts were not always effective. Negative impacts of the logging for exporting woodchip continues. This is partly because of the complexity of the issue and the lack of international cooperation with Japanese forest advocates. The complexity impedes the advocates from understanding the issue more deeply. This reduces the levels of the effectiveness of their strategies. The lack of international cooperation limits the range of the strategies that the forest advocates can adopt and implement. Without such cooperation, the Australian advocates are not be able to reach Japanese citizens, the primary end user of their woodchips.

Deeper understanding of the destruction of Australian native forests and international cooperation with Japanese forest advocates are vital for Australian forest advocates. Paving the way for the Australian advocates, this paper has two purposes. One is to analyze the causes of the issues in Australia in connection with Japan’s woodchip trade. The other is to investigate the challenges to international cooperation between Australia and Japan. The analysis and investigation would help the Australian advocates address the challenges to work on minimizing the negative impacts of the trade on their native forest more effectively.
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Chapter One: Introduction

Australia is one of the big woodchip exporters for Japan. The woodchip business for the export had negative impacts on Australian native forests since the 1970s, soon after the bilateral trade began (Dargavel 1995). In Australia, 200,000 hectares of all publicly owned native forests are logged each year. Over half the wood logged from Australia’s native forests is for producing hardwood chips, and most of the woodchips for exports go to Japan (WS 1999). The state of Tasmania that produces two-thirds of woodchips for exports is more dependent on native forests – Eucalyptus forests - as a source of the woodchips. Eighty-eight percent of the wood came from native forests (Hayward 2002). Continuous logging for woodchipping is a threat for the native forests that include only the 10 percent of the remnant old-growth forests within the country (WS 1999).

This paper is designed for forest advocates in Australia to work on the issue more effectively with a deeper understanding of the trade dynamics and with more cooperation from Japanese environmental groups. The paper presumes that the audiences have ample knowledge about the environmental degradation in Australian native forests and the ecological characteristics of these forests. Thus, the discussions about these two aspects are at a minimum in this paper.

This paper has two purposes. They are to analyze the reasons of the environmental problems in Australian native forests caused by Japan’s woodchip trade, and to examine the challenges to international cooperation. The analyses of these issues will aim at presenting the mechanisms of supply and demand in the woodchip trade,
highlighting political and economic interests surrounding the trade as well as the values about forests possessed by all the actors involved in the trade. Through the analyses, I would like to encourage the readers to know how each of the reasons forms a part of the mechanisms. This will provide a complete picture of the negative impacts of the trade on native forests in Australia. By doing this, it will contribute to generating productive and positive changes for the status of the native forests and the associated ecological integrity.

The examination of the challenges to international cooperation will be gained from a survey administered to Australian and Japanese forest advocates in May of 2003. The results of this survey will enable these advocates to discuss the issues and strategic ideas based on the expertise of each group and individual, as well as learning from other advocates. Such ideas may include how to decrease woodchip demand from Japan in general, and how to reduce native woodchip logging around the world. Information exchange and interactive discussions will be necessary to develop new, practical strategies for earlier resolutions of the issue. Learning about the barriers may be the prerequisite for benefiting from the international cooperation.

The second chapter will analyze the supply mechanism of the woodchip trade. The analysis of this mechanism involves a brief review about the situation in Australia surrounding the problems of exporting woodchip. This review aims at laying out the key features of the supply side and the reasons that direct Australia to keep up with Japan’s woodchip demand. The review includes the significance of the woodchip trade for Australia, environmental and social impacts of the woodchip trade on Australia, existing economic ideologies within Australia, problems of its public policy, and current political trends.
The third chapter will explore the demand mechanism. This chapter will provide a brief history of Japanese demand for woodchips. The history will stress the roles and economic interests of the Japanese central government after the World War II and the roles of Japanese trading companies – *sogo shosha* as intermediaries of the trade. This chapter will also elaborate on the patterns of paper consumption within Japan, the main fiber sources of paper products, and the relationship between the consumption patterns and the fiber sources to identify why Japanese paper and pulp companies need so much virgin wood fiber.

The last chapter will investigate what impeded international cooperation between Australian and Japanese forest advocates, using the aforementioned survey results. After a short summary of the previous chapters, this chapter discusses the challenges to international cooperation for native forest protection between Australian and Japanese forest advocates. These results will highlight why such challenges have occurred and can occur and how each of the challenges relates to the other challenges to paralyze international cooperation. The focuses of these include the institutional barriers of non-profit organizations within Australia and Japan and several cultural barriers that impede cooperation between the forest advocates of the two countries. Then, finally, several recommendations are presented to address the key challenges examined in the previous section.

I take two approaches in this project. One is as a Japanese who was born and grew up in Japan and has enjoyed the benefits of the woodchip trade without knowing the dark shadows hanging over the trade. The other approach is as a Japanese student who has an interdisciplinary background. I was interested in intercultural communication, conflict
management, and rhetoric when I was pursuing my first Master’s degree in the Communication Studies. I hope that my analysis and study will be helpful for the Australian forest advocates to work on the issue more effectively in the future. I expect that my contribution through this paper will be applicable to conservationists in other countries that work on international environmental problems. It is also my hope that the efforts made by the advocates will be fulfilled and that humans and non-humans can live in harmony by accomplishing sustainable use of forest resources without putting too much pressure on Australian native forests and their associated ecological integrity.
Chapter Two: the Supply Mechanism of the Woodchip Trade

Woodchip trade between Australia and Japan officially started in 1970. Although commercial activities for exporting woodchips caused environmental damage, Australian political leaders seem to have stressed exploitation of trees rather than restriction (Dargavel 1995). This chapter analyzes why this country takes such a pro-logging policy. First, the chapter lays out the significance of the trade for both Japan and Australia to contrast the difference between them. Then, it outlines the impacts of the trade on Australia. Finally, it explores the supply mechanism that directs Australia to keep up with Japan’s woodchip demand at any costs.

Different Significance of the Trade

For Japan, Australia was an ideal supplier. The country had not only eucalypt forests for hardwood chips that Japan needed for fine paper; it also had other favorable conditions for Japan. Australia had the infrastructure, a stable government, and the 40-year experience of using eucalyptus as the raw material of paper, as well as an established logging industry, which would produce hardwood chips from eucalyptus (Dargavel 1995). With such favorable conditions, Australia has been one of Japan’s most important woodchip exporters since the woodchip trade started.
Australia has a large share in Japan's woodchip market, but it's not the primary supplier of woodchips. As shown in Figure One, Australia faces competition from other exporting countries including South Africa, Chile, China, and Thailand (JPA 2003a). However, for Australia, Japan has been by far the most significant woodchip importer. Japan's woodchip demands were constantly high (ANU 2000). In the first four years after the trade began, Australian woodchip exports increased to 2.6 million tons a year (Dargavel 1995). In 2001, they marked over 5.2 million tons, and 95 percent of these went to Japan (ANU 2000). Exporting woodchips to Japan yielded hundreds of million dollars in revenue (ABS 1999); however, internalizing all of the environmental costs would reduce the real dollar gain significantly.

Environmental Impacts of the Woodchip Trade

In Australia, old-growth native forests are often subject to clearfelling for wood production (Norton 1996, Lindenmayer and Cunningham 1996, McCarthy and
Lindenmayer 1998). This intensive logging-operation involves removal of all the trees in logging sites and regeneration burning to prepare for even-aged regrowth (Taylor and Haseler 1995).

The ecological significance of the logging is also determined by several other factors. These factors include the size of the harvested area, the frequency of harvesting relative to the natural rate of turnover of the forest system, and the resilience of the system (Norton 1996). However, clearfelling can have significant, environmental impacts. It involves transformation of a multi-aged ecosystem to an even-aged young regrowth. This is a key threat to maintaining biodiversity in Australia (Taylor and Haseler 1995, Norton 1996, Lindenmayer and Cunningham 1996, EA 2002a). Many experts discuss the relationship between the loss of hollow-bearing trees after the timber harvesting and the decrease of the populations of fauna that utilise these trees as denning, roosting, nesting, or feeding (Gibbons and Lindenmayer 1996, McCarthy and Lindenmayer 1997, Lindenmayer et al. 1999, and Alexander et al. 2003). The 1996 and 2001 State of Environment Reports (SOE) issued by Environment Australia (EA) also see landclearing as a significant threat to maintaining biodiversity in Australia. EA describes (2002b):

The habitat of 1,000 to 2,000 birds is permanently destroyed for every 100 hectares of woodland cleared, while 200 reptiles are killed per hectare of malee cleared. Vegetation is being fragmented into various sizes, shapes, connectivity and condition and becomes prone to invasion by weeds or feral animals.

Further deterioration of the habitat can put threatened and vulnerable species into regional extinction (Norton 1996). In terms of the maintenance of its biodiversity, Australia faces a highly volatile situation.
The Supply Mechanism

Needless to say, Japan's woodchip demand has been a major contributor that created the woodchip boom within Australia. The demand stimulated Australian policy-makers and business leaders to orient more toward woodchip production rather than forest protection. However, Australia also has several other reasons to increase woodchip production. The reasons include certain ideologies prevalent among Australian business and political leaders that favor increased woodchip production in the country, and economic and political factors within this country. All of these developed over time, interweaving with each other. The next section examines these mechanisms in detail. The first part discusses how Japan's woodchip demand affected the Australian business and political leadership. The second part explores the other elements of the mechanism deeply rooted in Australian ideological, political, and economic frameworks.

Economic Profits from Waste Woods: the Belief and Reality

Japan's growing woodchip demand seemed to create a certain perception about the woodchip business within Australia: making economic profits from waste woods. Because woodchips are one-square pieces of wood processed with chemicals (Biermann 1996), they can be made from any types of wood regardless of their sizes and shapes (JPA 2003b). In theory, it doesn't matter for woodchip millers whether the woods are the off-cuts of sawnwood and plywood, too small in diameter and warped to be used for other purposes, or have hallows. Small or unusual shaped trees tend to be viewed as
waste and obstacles that impede young trees from growing (Dargavel et al. 2000). Woodchips enabled transforming these wastes to economic profits.

The business offers from Japanese trading companies during the 1960s appeared to be economically rational and attractive for Australian political and business leaders. During this time Australia's economy was stagnant, and the country saw a substantial rise in unemployment. Australian policy makers expected that the trade offered from the companies would offset the economic depression. Because of the economic status, the rosy perception about the woodchip business seemed to spread quickly through the country (Dargavel 1995).

However, such a perception was a myth. The real benefits of the woodchip industry to Australian society are highly questionable. In 2000, the revenue of woodchip exports exceeded 600 million dollars (40 percent of the export-values of forest products). Although the rate varies between states, nationally, the employment of the chip industry represented only 1 percent and its wages and salaries accounted for below 1.5 percent in all forest and forest product industries of Australia. Such small contributions stem from highly mechanized processes of woodchipping that were introduced in the mills to attain the cheapest woodchip prices by minimizing labor costs (ABS 2002). Besides, the net prices of export woodchips are decreasing because of the competition among mills within Australia and with other exporting countries (see chapter three). The low employment rate and salaries mean that the woodchip business is not as beneficial as policy-makers want to believe. A portion of the revenue might return to the states and be used for social welfare of the citizens, but most of the high revenue by the woodchip industry went to the woodchip companies, not to the citizens.
Despite such realities, the myth of the woodchip business persists in Australia. Although the myth is supported by woodchip demand from Japan, it also helps Japan maintain the level of its woodchip demand. With such a catalytic role, the myth is a part of the supply mechanism that increased woodchip production in Australia.

The mechanism also involves other reasons. These include developmentalism, wood production ideology, paralysis of public policy, and the political trend in forest management.

**Developmentalism and Wood Production Ideology**

The growth of woodchip supply from Australia is accelerated, in part, by developmentalism. This ideology came from Europe and has prevailed in Australia since the late 18th century. Australian developmentalism was characterized by a concentration on raw materials and first-stage processing for export industries and involved major roles played by governments in enhancing economic development, such as subsidization of infant Industries (Walker 1999a).

Developmentalism is based upon four assumptions. Development is “1) imperative, 2) popular, 3) good, and 4) has self-evident advantages” (Walker 1999a p.40). Although these underlying assumptions do not necessarily lead to environmental harm, there is a possibility that they can set a certain state of mind that favors development at any costs, and diverts attention from the negative impacts of development on the environment and ecology. By doing so, the assumptions can overlook the high potential of environmental costs. The assumptions label those who disagree with the projects as
disputants. The assumptions tend to hamper any change of the direction toward more environmentally sensitive forest management. This can pose threats to the ecological integrity of forests.

Developmentalism led to the rise of wood production ideology in Australia because the production can yield economic profits and lead to economic development. This ideology values consuming wood for human needs. It has been dominant in the forest management of Australia since the European immigration. In fact, the primary concern of forest management in the country for the last 30 to 40 years was the harvesting of economically valuable timber (Geno 2001). It may be natural for Australia to maintain such an ideology. The country used to have ample forest resources, and its development pattern depended on export of these resources. The revenue system of Australia places pressure for wood production on the state governments. The governments depend on federal budget allocations for funding. The revenues from natural resources are the only source of funds that the state governments can earn by themselves (Walker 1999a and 1999b). The state governments continue to provide subsidies to the natural resource industries to support these industries. During 1993 to 1994, the amount of such subsidies totaled 5.7 billion Australian dollars. This amount was equal to 4.4 percept of the total revenue of Australian governments. Although detailed amounts of the subsidies in each resource activity were not available because the state governments did not disclose such information, the subsidies are important for the woodchip industry to continue the extraction (Christoff 2003).

Although like developmentalism, wood production ideology itself may not be environmentally harmful, it can pose a threat for the remnant native forest and the
ecosystems in Australia when the focus is put too much on extraction of natural resources. In this ideological framework, environmental concerns tend to be viewed as marginal and something extra that should be addressed after the basic needs (economic needs) are fulfilled (Walker 1999a). The environmental values can be further downplayed.

In some cases in Australia, developmentalism and wood production ideology seemed to encourage decision-makers to favor proponents of wood production projects. Despite intense environmental controversy and political contests, the Minister for Resources renewed export licenses, and native forests continued to be logged for woodchips. Likewise, in New South Wales, the state government approved most of the applications for clearing native vegetation. These applications are obligatory under the state's Native Vegetation Conservation Act 1998 (NVC Act) that is to protect native vegetation and prevent inappropriate clearing of native vegetation. The state government is so willing to approve most clearing applications that it often applies exemptions to approve the clearing (EA 2002a). Also, Environmental Impact Assessment (EIA) has a tendency to favor proponents of development (Walker 1999a). For instance, in Tasmania, an EIA conducted in the middle 1980s covered three development proposals instead of one. These proposals were for woodchipping projects that were to increase the export quota. The covered areas were so huge that the resulting Environmental Impact Statement (EIS) was just general and unable to deal with impacts specific in certain habitats or in particular river drainages. Although the decisions after the EIS required the project companies to improve logging practices and reserve certain areas from logging, most of the forests continued to be logged for woodchips (Dargavel 1995). Such an EIA and the subsequent EIS might work favorably to project proponents, failing to prevent negative
environmental consequences of woodchipping. When the focus of natural resource use is put on the removal of trees, developmentalism and wood production ideology have a significant influence on native forest management in Australia.

Paralysis of Public Policy

Wood production ideology and developmentalism may have been prevalent because of the characteristics in Australian politics and industrial development policies. These policies tend to be inconsistent, ad hoc and reactive policies. They lack trans- and inter-sector coordination. Although governments frequently employ a powerful role, state elites are likely to avoid challenging the autonomy of firms and becoming too involved in the detailed processes of economic development. Governments’ competence to implement industrial development plans is significantly different from one sector to another. This can lead to substantial political power for private enterprise in the sectors where governments are incompetent. Governments’ plans depend on private investment decisions, and the successes of the plans are subject to the relative power of the affected sectors (Walker 1999b).

The results of the liberalism and the hands-off approach by Australian governments are “policy schizophrenia” (Walker 1999a, pp.34). Each policy can be inconsistent with others and hamper efficient implementation of overall environmental management. The malfunctioning political framework worsens when multiple governments and interest groups are involved as happened in environmental management.
Such a complex situation will result in premature decisions riddled with myopia, ad hoc approaches, and preference in choosing certain interest groups to others. Such political disruptions can further deteriorate the state of the environment when private enterprise commits to economic development through exploiting natural resources.

An Era of Devolution of Environmental Responsibility

Australia's emphasis on the wood production value of native forests will be accelerated because of its current political climate and the global trade system. After a golden period for those who advocated forest protection in the 1980s, Australia is in the stage of environmental roll-back. The federal government is transforming its environmental responsibility to local governments through the aforementioned National Forest Policy Statement (NFPS) and the Regional Forest Agreements (RFA). Both of these aim at attaining comprehensive, regional assessment to meet the multiple values of native forests. They sound eco-friendly, describing the importance of biodiversity, precaution, and best practice environmental management. Unfortunately, this may be only policy-rhetoric. RFA results in lifting the export restriction of woodchip and transfers the political power of controlling the export amounts to the hands of state governments (Walker 1999a and Economou 1999).

The trend of such transformation can further stimulate woodchip exports given the existing conditions surrounding the woodchip business in Australia. As mentioned, except for South East Queensland, Australian state governments tend to favor their exploitation of natural resources for the revenues that they can use by themselves. They
generally have a close link with private enterprise because of the aforementioned imbalance of the governments in implementing economic policy. The export woodchip industry has already established political power in Australia (Dargavel 1995 and Walker 1999a).

The ongoing globalization of trade also encourages native forest logging. Globalization encourages a country to change policies for increasing its international competition. The policy changes include deregulation and promotion of exports. Because environmental laws and regulations can be non-tariff barriers, the measures for enhancing the competitiveness often include weakening environmental protection and reducing their legal enforcement (Menotti 1998). Given accelerating globalization, the power of private corporations would become more important to attain international competitiveness for national economic development.

Under such circumstances and natural preoccupation for profit-making among the industry and states, the devolution of environmental responsibility could result in promotion of the woodchip trade and further stimulate the Australian mind-set to keep up with the excessive woodchip demand from Japan.

The next chapter presents the demand mechanism, focusing on the process of how Japan's woodchip demand was developed, promoted, and maintained. These discussions highlight political and economic interests of the various actors involved in the trade and the patterns of paper consumption of the country.
Chapter Three: The Demand Mechanism of Japan's Woodchip Trade

Like the supply mechanism, the demand mechanism is also a process developed over a long time and interwoven with many factors within Japanese society. These factors include political and economic interests, social values, the patterns of paper consumption, and the choice of fiber source by Japanese pulp and paper companies. Each of the factors interrelates with the others to establish the woodchip trade, create excessive woodchip demand, and maintain such demand. This chapter analyzes the mechanism of Japan’s woodchip demand with two focuses: the development of the trade and the need for woodchips. The first part involves what initiated and promoted the woodchip trade in relation to national economic interests following World War Two, the political decisions associated with these interests, and the roles of Japanese trading companies in the woodchip trade as intermediaries. The latter part elaborates on paper production patterns and the relationship between these patterns and the fiber sources of the Japanese paper and pulp companies.

Development of Japan’s Woodchip Trade

During the pre-war period Japanese paper and pulp companies procured woodchips from domestic forests and the forests within Japanese colonies. Coniferous trees like pines and fir were the main materials. Following the war, along with the domestic coniferous trees, the Japanese corporations also utilized domestic broad-leaved
trees. They improved the pre-war pulping technology to use the broad-leaved trees as a raw material of paper to meet domestic woodchip demand during the time (Hisada 2000).

However, the domestic woodchips were depleted by the early 1960s when Japan fully recovered from its post-war reconstruction stage (MITI 2003), and per capita paper consumption grew as its economy developed substantially (Hisada 2000). The depletion stemmed from the combination of myopia in forest management by the Japanese central government and the impacts of World War II. These include 1) heavy logging prior to the World War II, 2) loss of the colonies as the sources of woodchips following the war, 3) loss of the remaining forests during the war, and 4) extensive plantations (Marchak 1995 and Blandon 1999). Such plantations include the substitution of forests from natural broad-leaved forests to the coniferous forests for construction purposes.

The depletion threatened the survival of the Japanese paper and pulp companies. The prospects for the Japanese economy were very strong and positive. Paper consumption was to continue to grow (Hisada 2000). This meant that the paper and pulp companies could expect an increase in their economic profits. It was crucial for the companies to secure the raw materials. The depletion directed the Japanese companies to look for a source of woodchips outside of the country.

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1 This is called "Kakudai Zourin" that was started and encouraged by the Japanese central government during the post-war housing boom. Kakudai Zourin literally means reforestation to expand the forest area, but in the Japanese context the meaning is the replacement of a natural forest with a man-made one of high commercial values. Former oak and pine forests were replaced with commercially valuable, hinoki (Chamaecyparis obtusa) and sugi (Cryptomeria japonica) (Marchak 1995). This policy benefited the Japanese paper and pulp industry. The trees logged in the forest replacement process were seen as waste and thus sold at cheap prices. However, the policy had negative impacts on Japan's natural forests. Japan's natural, broad-leaved forests diminished, and the ecological integrity of these forests was disrupted. These invoked fierce protest against the policy within the country (Okumura 1996), which decreased new replacement substantially. As a result of this policy, 40 percent of Japan's forests are plantations. However, at present, the replacement is rare. The Japanese forest management policy leans more toward "preservation" of scarce natural vegetation (ME 1998).
The depletion also posed a threat to the Japanese central government. The government was attempting to promote further economic development of the country, and the growth of paper consumption often embodies the level of national economic development. The government saw import of woodchips as necessary for this national goal. Besides, in the 1960s, the national government was striving to enhance domestic demands for goods through using imported raw materials (MITI 2003). With the national economic interests in mind, the Ministry of International Trade and Industry (MITI) strongly encouraged Japanese paper and pulp companies to use imported woodchips. The ministry gave permission for investment in new pulp mills to Japanese corporations in the pulp and paper industry if these corporations agreed to use the imported chips. Also, the ministry used its political clout to procure the chips through overseas development programs. These programs involved the development of forestry sectors such as woodchip production and pulpwood plantations within the recipient countries. The programs gave hard currency to these countries in exchange for exporting the materials to Japan. In the meantime, the program enabled Japan to procure woodchips (Kuroda 2003).

The woodchip import was further promoted by the appreciation of the Japanese Yen (JPY) against U.S. dollar. Such a change resulted from two political decisions by the Japanese central government. These were introduction of a floating foreign exchange system and the Plaza Accord. In 1973, the central government changed its foreign exchange system from a fixed system to a floating system (MITI 2003). This means that the transaction of foreign exchange was transferred to the hands of investors from the government, resulting in the appreciation of the yen against the U.S. dollar. Then, in 1985, the government agreed to intervene cooperatively in the foreign exchange market with
the United Kingdom, France, the West Germany and the United States. This agreement aimed to depreciate the U.S. dollar against the currency of the signatory countries to alleviate the American trade deficit, which these countries saw as an impediment against a healthy world economy (IOC 2003).

In the wake of those political decisions, the exchange rate between U.S. dollar and Japanese Yen (JPY) significantly changed. Prior to 1973, one U.S. dollar was exchanged for JPY 360. After 1973, it changed for JPY 270 (Osugi 2003). Then, after 1985, appreciation of the Japanese Yen against the dollar was further accelerated. Once one U.S. dollar was exchanged for JPY 80. The appreciation of JPY led to the decrease in the net prices of imported woodchips because the U.S. dollar was the commonly used currency for the payment of the trade. Using imported woodchips became a rational business strategy for the Japanese paper and pulp companies to save costs.

However, the woodchip trade would not have been successful without the roles of Japanese trading companies -sogo shosha. Examples of such companies are Mitsubishi Corporation, Mitsui & Company Ltd., Itochu & Company Ltd., Sumitomo Corporation, Marubeni Corporation, and Nissho Iwai Corporation. These companies are more than trading companies. They are complex conglomerates that have worldwide networks with hundreds of subsidiaries and affiliates and are closely connected with suppliers, producers, and consumers (Dauvergne 1997). Sogo shosha are the active creators of long-term demand and supply and have been the catalysts of Japan’s economic development. Their main business is to serve as a channel connecting demand and supply (Young 1979, Yoshihara 1982, and Yoshino and Lifson 1986). Because of these unique characteristics, the Japanese label, sogo shosha, is used in this paper.
Sogo shosha worked with very small amounts of commission. This directed these companies to buy raw materials as much as possible from various countries to compete against each other for maximizing economic profits (Dauvergne 1997). This need turned to their strengths that included worldwide information networks, intermediaries in procuring raw materials for their client companies, and transportation of these materials. Using these strengths, sogo shosha facilitated and coordinated the woodchip trade for Japanese paper and pulp companies.

Sogo shosha have been information sources for Japanese paper and pulp companies. Sogo shosha's worldwide network was essential for the paper and pulp companies to survive in the business. Through the network, sogo shosha provided fast and accurate market information to the paper and pulp companies (Dargavel 1995 and Dauvergne 1997). Such information is indispensable for the paper and pulp companies that face a continuous need to explore new woodchip sources (Marchak 1995 and Claro and Wilson 1996).

Sogo shosha also served as intermediaries for the woodchip business. They provided woodchips through local subsidiaries. These subsidiaries serve as an actual buyer of woodchips from local sawmills, or own export woodchip mills that process pulplogs into woodchips (Dargavel 1995). In Australia, the example is Harris-Daishowa, an export woodchip mill owned by Itochu, operated in Eden.

Sogo shosha also helped Japanese paper and pulp companies make trade contracts with local mills and maintain the lowest prices for woodchips. Sogo shosha sent men to an exporting country. For instance in Australia, sogo shosha fulfilled this role by making one-to-one contracts with local export mills. Sogo shosha participated in periodic
meetings between the mill and the paper and pulp corporations for negotiating woodchip prices. Such types of contracts created many competitors, synchronized with diversification of the woodchip sources around the world. As a consequence, the contracted mills were unable to increase woodchip prices as they wish. The mills had no power to improve the chip prices (Dargavel 1995).

In fact, the prices were decreasing. In 2000, Australian hardwood chips were the second cheapest in the world after Thai hardwood chips. The price of the Australian chips was approximately only $100 U.S. dollars per green tonne! Besides, for the last 12 years, the real prices of the Australian chips continued to decrease, although in nominal terms the prices rose. This is because the increases of the chip prices did not reflect the increases of commodity prices within Australia. Thus, even though the prices appeared to be increasing, they were actually decreasing (ANU 2000). The chip prices provoked controversies in Australia. Many experts agree that the chip prices are too cheap and not enough to implement sustainable forest management (Dargavel 1995). Although sogo shosha are not the sole cause of the problems associated with woodchip prices, it is fair to say that they have had a significant impact on these problems.

Sogo shosha also arranged the shipping for the Japanese paper and pulp companies. Sogo shosha invented a carrier specialized for transporting woodchips from the exporting countries to Japan. The numbers of such carriers owned by sogo shosha are over 100 (ST 2001). They use company-owned woodchip carriers to convey the imported woodchips (Dargavel 1995 and Dauvergne 1997).

With the range of roles mentioned above, sogo shosha served like a one-stop shopping mall for Japanese paper and pulp companies. They were information providers,
intermediaries, and shippers. These roles were essential for the Japanese paper and pulp companies to globalize the sources of the chips.

An effect of the woodchip trade on Japanese citizens also may be a cause of Japan's excessive woodchip demand. The trade caused geographical distances between the demand and supply sides of natural resources. In other words, Japanese citizens became unable to see the consequences of their consumption within their own country. This situation led to a psychological disconnection between their consumption patterns and environmental consequences. Such a disconnection is strengthened because Japan's forested area covers 67 percent of its landmass. No matter how much paper the Japanese use, their forests remain green. Although this is partly because the Japanese forest industry lost competitiveness against imported timber, the ever-green forests can give an illusion about natural resource use to the citizens. The Japanese may be unable to believe the fact that the resources will be depleted when they are used beyond a sustainable level. The psychological disconnection resulted in a tendency that Japan moves more toward consumption of the resources rather than conservation.

With an understanding of the structure of the trade, the next part analyzes the mechanism of woodchip demand from a different angle: the content of the woodchip demand within Japan. The analysis of the content illustrates how the woodchip demand is caused in relation to paper consumption and production within the country.
Paper Consumption and Fiber Sources

One of the characteristics about Japan and paper is that most of the paper produced within the country is for domestic use. Export accounts for only 10 percent of the 30 million tons of paper that they produce every year (JPA 2003c). As indicated in this fact and its excessive woodchip demand for paper production, Japan is a big paper consumer in the world. In 2001, per capita paper consumption was 243 kilograms. This amount stands at fifth, ranking behind the United States with a consumption of 306 kilograms, Sweden, Finland, and Canada (JPA 2003d).

This part examines the details of paper consumption within Japan. First, it discusses consumption patterns in relation to Japanese culture and the results of economic development. Although cultural use of paper does not represent the highest, most popular use of paper within Japan, it is important to be studied because it can affect the general perception of Japanese citizens about paper. Then, the discussion focuses on the types of paper products and the highest consumption amounts within Japan. The next part explores the types of fiber used for producing these products, the amounts of woodchips used for their production, and the benefits of using woodchips for the Japanese paper and pulp industry.

Cultural Use of Paper

Wrapping is one of the most salient cultural uses of paper in Japan. Japanese culture requires different types of wrapping depending on cultural norms and contexts.
Wrapping a gift connects with a social norm of showing respect and care to the people who receive the gift. Paper wrapping might come from Western countries. When paper was scarce, cloth was used for wrapping. When paper became common and available at reasonable prices in Japan with its economic development, cloth was replaced by paper. In a casual situation such as a gift for family or close friends, simpler wrapping is becoming common for reducing paper consumption. They just put the gift in a paper bag. This stems from environmental concerns such as garbage problems, emission of dioxin, and depletion of natural resources. However, in a formal situation, excessive wrapping still exists. When they give a gift in a very formal way, the gift is wrapped very carefully. First, it is wrapped with a very thin paper for protection, which also indicates a good quality of the gift. Then, it is put in a box, which is wrapped by a fine, white sheet of paper. This paper shows an occasion of the gift such as gratitude for recovery of illness, celebration of marriage, memorials for the dead, as well as the name of the sender. Finally, the box is wrapped by another sheet of paper and put in a paper bag. Because layers of paper – wrapping – indicate the depth of respect and formality to the gift receiver, the more formal the situation is, the more paper is used.

Socially important occasions, such as engagement, wedding, and funerals also relate to the cultural use of paper. Although it has become more simplified because of Japan’s stagnant economy, the engagement ceremony involves ritualistic wrapping. For instance, an engagement ring is put in a wooden box, covered by white and red paper that indicates a happy occasion. The gifts including teas and Japanese sake are also carefully wrapped according to the ritual meanings. In wedding and funerals, people give cash when attending the ceremonies. It might originate from money donation to help the
financial constraints of the people who held the ceremony when the Japanese economy was not developed and the citizens lived in a very challenging financial situation. This custom remains because the money helps. It is still very expensive to hold such a ceremony, ranging from 20,000 to 50,000 U.S. dollars. The money is wrapped in an envelope designed for the occasions to indicate whether they are celebrations or condolences.

Paper is also used for other ritualistic ceremonies in connection with Japan’s traditional religion – Shinto. In the ceremonies of Shinto such as the ground-breaking ceremony for building a new private house or a business complex, a Shinto priest uses gohei that has paper streamers attached to a two-foot long wooden stick. Because gohei is believed to get rid of evil spirit and invite good spirit, it is used in the ground-breaking ceremony where the participants wish for completion of the construction without delays and injuries.

Further, paper is important for a traditional living space in Japan. Paper is used as a substitute for curtains, sliding doors for cabinet, and partitions to divide rooms. The furniture or a part of furniture made from paper and wood gives a touch of Japanese-style to a home, which helps Japanese citizens feel relaxed.

For Japanese citizens, paper is a necessary product for their daily life, linking with cultural norms, customs, and traditional lifestyles. The negative side of such a necessity can be that paper is common and consumed massively. Being common can reduce the value of the product. The cultural use of paper in Japan, thus, may affect the perception of how the citizens see and use paper products.
Paper Consumption Pattern

Japanese paper companies manufacture over 50 different kinds of paper products (JPA 2003e). As shown in Table One, from 1996 to 2001, writing and printing paper had the largest production volume of over 11 million tons. This represents roughly 35 percent of the volume of all the paper products manufactured in Japan. The paper product with the second highest production volume was cartons for packaging and transportation. Its annual production was approximately 9.4 million tons. This is followed by newsprint with 3.2 million tons a year (JPA 2003).

Table One: Amounts of Paper Produced in Japan

<table>
<thead>
<tr>
<th>Year</th>
<th>Tons</th>
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<tbody>
<tr>
<td>1996</td>
<td>35,000,000</td>
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<tr>
<td>1997</td>
<td>30,000,000</td>
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<tr>
<td>1998</td>
<td>25,000,000</td>
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<td>1999</td>
<td>20,000,000</td>
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<tr>
<td>2000</td>
<td>15,000,000</td>
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<tr>
<td>2001</td>
<td>10,000,000</td>
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</table>

The above consumption patterns closely relate to Japan's economic development. Combined with technological improvement, the economic development led to popular use of copy and fax machines and the need of communication paper such as company brochures. During the 1980s, more offices became equipped with copy and fax machines.
Since the late 1990s, more citizens had their personal computers and printers at home. Such popular uses resulted in increasing use of writing and printing paper both in offices and homes. The economic development also increased the purchase of goods by the citizens as gifts for other purposes, which resulted in more need of packaging paper.

The next part examines the fiber sources of these paper products. It outlines each of the sources and the main paper product produced from the source to determine a potential relationship between paper production (consumption) and excessive woodchip demand from Japan.

**Fiber sources**

Japanese paper and pulp companies have four kinds of fiber sources. These are 1) waste paper, 2) imported woodchips, 3) domestic woodchips, and 4) imported pulp.

It may sound perplexing considering the dependency on woodchip imports, but the primary raw material for paper of Japanese paper and pulp companies is waste paper. Waste paper is divided into two types: pre-consumer waste and post-consumer waste. Pre-consumer waste is unprinted industrial by-products including paper mill waste. Post-consumer waste consists of printed-paper collected from offices, business, and homes such as newspapers, telephone books, ads, and packaging materials. Waste paper is collected by recycling companies from homes, offices, businesses such as printing and newspaper companies, publishers, and department stores or brought to recycling companies from these sources. In 2000, waste paper represented 57 percent of all of the fiber sources. The utilization of waste paper has continued to increase; in 2001, it
represented 58 percent of all sources, which is third highest in the world\(^2\) (JPA 2003f). This figure is expected to increase to 60 percent by 2005 (JPA 2003g).

In 2001, the next major fiber source was imported woodchips, combining softwood and hardwood chips. They accounted for 27 percent. Softwood chips are produced from coniferous trees such as pine. Their longer fiber provides more strength to paper than the fiber of hardwood chips. Taking advantage of this characteristic, softwood chips are used for producing packaging and newsprint, both of which require folding endurance and tensile strength. As mentioned, in terms of the softwood chip demand, the Japanese paper and pulp industry buys approximately 15 million tons of softwood chips a year. Of these total softwood chips, imported chips account for about 46 percent (JPA 2003c).

Hardwood chips are manufactured from broad-leaved trees such as beeches and eucalyptus. Fibers of these chips are shorter and weaker than the fiber of softwood chips, but the shorter fiber yields a smooth paper-surface. This suits the quality required in producing writing and printing paper. The industry purchases over 21.5 million tons of hardwood chips a year. Unlike softwood chips, the imported hardwood chips are the major source. In 2001, it was 85 percent. The dependency on the imported chips increases every year (JPA 2003c).

Domestic woodchips represent 7.5 percent. Most of these were softwood. Domestic softwood chips are competitive in the Japanese market because the chips are produced from off-cuts of sawn-woods and unmarketable woods from thinning which are too small in diameter (JPA 2003c).

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\(^2\) The Republic of Korea had a highest rate of waste paper utilization in the world: 69.6 percent. This is followed by Germany with a figure of 64.5 percent (JPA 2003f).
Although Japan uses a lot of waste paper as raw material, the figure of utilization rates can be misleading. The aforementioned 57 percent is just an average. Each of the paper products has a significantly different rate in waste paper utilization. Paperboard products such as carton boxes have a figure of 90 percent of the utilization rate. This is the highest among all the paper products. In general, the rate depends on the level of brightness of each paper product. Paper products with less brightness, such as paperboard and newsprint, have higher rates of utilization. In contrast, paper products that need to be brightened have lower rates. Newsprint and sanitary products mark the second highest rate - over 50 percent. Writing and printing paper, which has the highest production volume within Japan, has only 30 percent of the rate. The remaining 70 percent of the source is hardwood chips (JPA 2003f); most of these chips are imported materials. For Japan, one of the factors that relates to its woodchip demand is the high consumption of writing and printing paper. These types of paper products require a high level of brightness and thus require significant amounts of virgin wood-fiber produced from woodchips.

The Japan Paper Association (JPA) argues that the maximum rate of waste paper utilization for producing writing and printing paper is 30 percent. More use of recycled paper would require an increase in chemicals for de-inking and breaching processes to maintain certain levels of brightness. This would result in the increase of negative impacts on human health and an increase in the prices of the paper product. Japanese paper and pulp companies have dealt with the increase of paper consumption simply by increasing the hardwood chip imports.
There are other factors for Japan's excessive woodchip imports. They include the high overall paper consumption within Japan and lack of competitiveness of domestic hardwood chips. Even though Japanese paper and pulp companies use recycled paper as a material for paper production, they still need virgin fiber to maintain strength of paper products (JPA 2003h). The Japanese paper and pulp industry (ST 2001) mentions that the amounts of woodchips required to produce pulp in Japan are so large that it cannot afford to procure them only from domestic sources. The prices of domestic hardwood chips also contribute to increase Japan's dependence on imports. The prices are not competitive in Japan's market because of higher labor costs.

Further, the Japanese paper and pulp industry highlights the benefits of woodchips by contrasting the limitations of non-wood fiber sources (ST 2001). The industry contends that using non-wood fiber sources will result in an increase in the operation and production costs within the country. These sources tend to be bulkier than wood-chips, which requires more energy and fuel costs in harvesting, transportation, and storage. This means more use of gasoline. According to the industry, such an increase not only leads to lowering air quality in Japan but also contributes to acceleration of global warming\(^3\) (ST 2001). Also, the non-wood fiber sources contain more silica, which requires more chemicals to treat wastewater. More chemicals can result in emission of toxic materials in the air in the course of water treatment. Further, the non-fiber sources need more fossil fuels in the pulping processes than woodchips. Unlike woodchips, these materials do not yield a by-product that can be used as energy. The fuels produced from the woodchips account for about 30 percent of the energy that the industry uses (ST 2001). Moreover,

\(^3\) However, this rhetoric downplays the environmental costs of transporting woodchips from Australia to Japan as a result of the fuel combustion of woodchip carriers.
the paper produced from non-wood fiber is not recyclable because the finished products tend to be too weak. All of these reasons are why the Japanese industry prefers woodchips as a source of fiber to non-wood fiber sources such as straw and hemp and contends using woodchips is necessary.

Although Japanese paper and pulp companies use waste paper as a raw material for paper products, they contend that woodchips are necessary to maintain brightness and strength of paper and to minimize operational costs and environmental costs. They also argue that the high, overall paper consumption in Japan requires importing woodchips. With the dependence on imported woodchips, the increase in paper consumption simply led to the increase of the imports, especially the imports of hardwood chips.

As examined, there are many reasons why Japan imports so much woodchips. Each of them contributed to the development of the demand mechanism, interweaving with the political and national interests of the Japanese central government, sogo shosha, and Japanese pulp and paper companies. The guidance by the central government and the assistance from sogo shosha are very significant for the mechanism of Japan's woodchip demand. These helped established a commercial structure that encouraged and supported the use of imported woodchips as a raw material of paper products. The vested interests still run deeply in the demand mechanism and help to maintain the high consumption of paper products by making cheap paper products available within Japan. As the paper demand grew, the sources of woodchips expanded around the world. The development of the trade resulted in a psychological disconnection among Japanese citizens between their consumption of paper and its environmental consequences. The forces within the demand mechanism push Australia to keep up with the demand from Japan, and help Australia
maintain and reaffirm the supply mechanism that exists in this country. The supply mechanism involves developmentalism, wood production ideology, and the multiple actors of political and economic interests. All of the vested interests in the woodchip trade, the psychological disconnection, and the ideologies affected each other, intensified Japan’s woodchip demand, and directed Australian forest management policy to go more toward exploitation of forest resources rather than the conservation.
Chapter Four: Need for International Cooperation

The analyses of the supply and demand mechanisms suggest that Australian forest advocates need to affect multiple actors at multiple levels in Australia and Japan. The target actors encompass 1) the federal and state governments and the export industry in Australia, 2) Japanese trading companies - *sogo shosha*, and paper and pulp companies, and 3) Japanese citizens and businesses customers, the primary customers of these paper and pulp companies. The purposes of the strategies include changing the woodchip source from native forests to plantations and the overall reduction of woodchip demand from Japan. However, bringing about such changes is not easy. Forest advocates cannot undertake this task within Australia alone. Although international cooperation with Japanese environmental groups may not be a panacea to minimize forest destruction, such a network surely is one of the important means. Such cooperation can improve the effectiveness of a forest protection campaign. This can enhance the quality and quantity of information they can share. The information involves Japanese companies, woodchip and paper consumption within Japan, and the ways to access the Japanese public. In the past, there were some levels of cooperation between Australian and Japanese environmental groups. However, previous cooperation has not been effective for minimizing environmental damage in Australian native forests.
Survey to the Forest Advocates and the Challenges to International Cooperation

Building effective, international cooperation for Australian native forest protection will begin with learning from past experiences – what has challenged the previous efforts at cooperation – and why these challenges occurred.

To identify the challenges, a survey was sent to forest advocate groups both in Australia and Japan in May 2003. For the Australian groups, e-mail was sent through the National Forest Summit mailing list of approximately 140 correspondents. For the Japanese groups, both e-mail and postal mails were used. Eleven questionnaires to four different Japanese international environmental groups were sent. For postal mails, reply envelopes and stamps were included. The four groups were Friends of the Earth Japan, Japan Tropical Forest Action Network, APEC Monitor NGO Network, and Greenpeace Japan. The survey questions included their experiences working with environmental groups within other countries, what challenges they had faced when working with them, and/or what challenges they could face in the future. (See appendix one and two for survey questions and the results). From the Australian advocates, six responses were returned: from the Japanese advocates, 0 responses. Although it is not conclusive why the Japanese advocates did not respond at all, there are several potential reasons. They might be simply busy and occupied with commitments, and might not have time to participate in the survey. Relating to their tight schedule, they might not respond to the survey that they did not see as important and influential to resolve environmental problems in Australia. Or, they might fear a potential consequence of answering the survey. If they had participated in the survey, some Australian groups might have brought an idea of a cooperative project between Australia and Japan, which could mean additional efforts for
Japanese forest advocates who were already busy with other agendas with limited number of staff. Also, another potential reason might be lack of a personal connection between the Japanese advocates and author. Sending an e-mail survey to Australian forest advocates, Tim Cadman of Native Forest Network helped the author as an intermediary. However, sending the survey to the Japanese advocates, the author did not have such a person although she had met some of the Japanese advocates a year before. Lack of personal connection might reduce the willingness among the Japanese advocates to participate in the survey. There may be more reasons available to explain the zero response from the Japanese advocates, but it is an open question. Because there was no response from Japanese environmental groups, the discussion about the results below is based upon the results from Australia. The analyses of the results led to two challenges identified in the responses, which seemed to be the most influential. These challenges are financial shortage and cultural differences. The analyses are grounded as well on my knowledge of Japanese culture, to enhance understanding of why such challenges occurred.

Survey Results

The very limited number of the survey respondents reduced the significance of the information drawn from the survey relative to the experience and the thoughts about international cooperation that the majority of Australian forest advocates have. Because of such a restriction, the survey results are utilized as relative information not as representation.
The survey results showed that the six respondents are working for relatively small, grass-root environmental groups. The names of the organizations for which these Australian respondents were working include 1) Chipstop, 2) Eco Practical Activist Network, 3) Green Net, 4) Native Forest Network, 5) Western Australian Forest Alliance, and 6) anonymous. The membership for each group ranges from one to 25,000, and the groups have small annual budgets.

The results also illustrated that the six responding environmental groups are working on the protection of old growth forests and the environmental problems related to woodchipping. One of these groups focuses on conserving species because saving the tree is often not enough and saving the smallest organisms is important. The details in the expectations for a successful campaign vary among the respondents. However, all the respondents seem to view that many levels of success lead to the protection of native forests in Australia.

Five of the responding groups have earlier worked for, or had experience, working with environmental groups within other countries including Europe, Japan, and Southeast Asia. Regardless of their international experiences, all of the survey respondents identified benefits of international cooperation. These benefits included mutual help, media help, and information sharing.

The respondents also pointed out challenges to international cooperation based upon either their own international experiences or presumptions. The actual or potential challenges to such cooperation included financial shortages, limited time and staff, and different prioritization of the issues within each member group, motivation, geographical distances, and cultural differences. All of these are important and relate to each other, but
the survey results lead to two major factors that impede international cooperation. These factors are financial shortage and cultural differences, which tend to cause new challenges or intensify existing challenges.

**Analysis of the Challenges**

**Financial Shortage**

Financial shortage is a significant challenge for Australian forest advocate groups. The reason for this challenge seems to come from institutional barriers within this country. The government has discretion about which NGOs it gives tax exempt status and which NGOs it does not. Depending on the policy of an NGO, the government can deny the status.

Japanese non-governmental organizations (NGOs), including environmental NGOs, are also face financial shortages. Like in Australia, tax exemption status is not a prerequisite for NGOs within Japan. The ministry related to the main activity of an organization has authority for giving the status to the organization. To gain such a status, a Japanese NGO files an application to the ministries that relate to the NGO’s main activity. Financial donations from Japanese companies and citizens are the main financial source to support NGOs in Japan. However, gaining the donation is difficult because of cultural and institutional barrier within the country. Some say that Japanese culture does not have the Judeo-Christian ethic that promotes the idea of people helping one another. It may be true because helping others in the Japanese culture traditionally
means helping the people within the immediate social groups such as family, friends, and those who are in a business relationship. This may be a barrier, however, the more important barrier of the financial donation seems to lie in the taxation system in Japan. The Japanese government does not provide tax incentives to the companies and individuals for donating money to NGOs. Instead, the tax incentives are for government-operated organizations, those specially registered by the government, or the organizations authorized by the government as a “special public interest promotion organization” (Yamakoshi 2003). These organizations are less likely to be critical about the government and the corporations and industries that have a strong connection with the government. Some of those government-related organizations are so called ‘amakudari’ sites for the same government officials that dole out their funds after their retirement. In Japan, tax deductions that companies and individuals receive for donating to NGOs is miniscule. The companies can deduct donations up to 0.125 percent of their capital plus 1.25 percent of their annual profit. This is called the general ceiling. In contrast, companies can deduct donations without any ceiling or with twice of the general ceiling when they contribute money to organizations approved under the government’s umbrella. In the case of individuals, they receive a tax exemption only when their donation goes to these organizations, not NGOs (Yamakoshi 2003). The institutional challenges associated with the tax system within Japan significantly discourage companies and individuals from donating their money. Thus, these challenges impede Japanese society from establishing a new tradition of charity. The barrier, as a result, causes the chronic financial shortage of many of the Japanese NGOs.
Financial shortage can determine the level of efficiency of international cooperation. It can minimize the numbers of forest advocates, increasing the burden of their workload and reducing choices of their strategies. The increase of the workload may encourage forest advocates to reprioritize their agendas. The agendas connected with the cooperative projects may have a lower priority unless they have immediate deadlines. The limitation of the choices can decrease the efficiency of the strategies and further prolong the time and efforts necessary for addressing an agenda. These resulting increases can also affect the level of motivation of forest advocates. Motivation can fade away as time goes by. However, resolving an environmental problem tends to take a long time because such problems are likely to be complicated and involve various interest groups (Dargavel 1995). Maintaining motivation for a long time is very difficult, especially when the forest advocates do not have any positive results of protection efforts for a long time. Further, financial shortage can reduce the chances of travel to a minimum. This can lead to the decrease of motivation among the forest advocates. Travel allows the forest advocates to hold face-to-face meetings, helping them reaffirm their commitment, share the challenges they face, and consolidate the sense of togetherness.

Further, when working with a Japanese international environmental group, financial shortage can have another effect. For some of these groups, expending the funds allocated for a project means they are finished with this project, even if the project itself has not been finished yet. Such a no-money-no-work approach can be problematic for Australian environmental grass-root groups that keep working on a project regardless of the financial status.
Financial shortage is indeed a significant issue for Australian forest advocates, causing new challenges and accelerating the significance of other challenges. It can impede the advocates from continuing their efforts of working on environmental problems efficiently and cooperatively.

**Cultural Differences**

Cultural differences are equally important for international cooperation of forest advocates between Australia and Japan. A culture is "a pattern of learned, group-related perceptions including both verbal and nonverbal language, attitudes, values, belief systems, disbelief systems, and behaviors that is accepted by an identity group" (Singer 1986, p.6). Among all of these elements, the most influential differences for such cooperation seem to be language, communication processes and tendencies, and voluntarism. These four elements of culture are necessities for effective international cooperation because it is grounded on information exchange among forest advocates through verbal communication and is based on mutual help.

It is ideal that Australian and Japanese forest advocates speak the same first language or speak each of their first language as a second language to communicate with each other without much difficulty. However, such an ideal communication does not seem to exist in the conservationist communities of these countries. The first languages of these countries are very different. Many of the forest advocates do not speak the language that the other side speaks. Unlike European languages, Japanese does not have any similarities with English in alphabet, syntax, and grammar. Such differences may make learning the other language difficult both for Australians and Japanese.
However, the linguistic challenge may also stem from another reason. The opportunities, and motivation to learn it are limited both in Australia and Japan because there is not a real need to learn the language there. English is a global language. The political power of English may discourage Australians from learning a foreign language. Japanese have a similar situation. The citizens do not have a real need to learn a foreign language unless they go to another country to live. Japanese is a minor language in the world, but Japan’s economic power and political stability allow the citizens to receive higher education, to enjoy a certain level of material wealth, and live a decent life within their country (Suzuki 2000). It is true that English education in Japan has problems. Most Japanese do not speak English at all after studying the language for 6 to 8 years at schools. Socio-economic background is at the root of this tendency, and probably impedes resolving the problems of English education in Japan.

The lack of the need limits both the opportunities and motivation to master the second language as a communication tool both in Australia and Japan. The limited opportunities in these two countries indicate that acquiring the language requires extra efforts and money. Thus, those who have mastered the language may expect to get rewards for these extras by linking their linguistic skills with job opportunities in the profitable industries such as trade, international finance, and technology. Those who speak Japanese in Australia and those who speak English in Japan may tend to go to such industries rather than non-governmental organizations whose mission is not making economic profits.

The linguistic challenge enhances the significance of the challenges in connection with the difference in communication processes and tendencies between English and
Japanese. Learning a foreign language is not just studying the linguistic differences. It also means knowing how the people who speak the foreign language conceptualize their thoughts through language. The ways people conceptualize their thoughts closely links with the communication processes and tendencies of a culture. Linguistic challenge can significantly limit the chances of learning about these cultural differences. This will result in confusion and frustration between speakers and interlocutors.

All of the cultures in the world have a predominant communication process, categorizing either low-context or high-context communication. Such categorization is important because each type of these communication processes has a different style and goal of communication. Low context culture such as the U.S.A. and Australia tend to value verbally expressive communication. Thus, the goal of communication in this culture is “for each individual to speak up for him or herself, and express messages in as explicit a manner as possible” (Yamada 1997, p.4). In contrast, communication of high context cultures such as Japan and China is likely to depend on context rather than verbal expression. The goal of communication in this culture is “for members of a group to depend on each other to talk about shared experiences, and express messages in as implicit a style as possible” (Yamada 1997, p.4). The differences lead to different expectations in the roles of a speaker and an interlocutor. In low context culture, it is the speaker’s responsibility to clarify what he wants to say. By contrast, in a high context culture, it is the interlocutor’s responsibility to make a guess based on the context, and what the speaker has said to understand what the speaker intends.

Such differences in communication processes relate to the tendencies that influence the communication behavior of an individual: individualism and collectivism.
Like the low- or high-context communication processes, both of these tendencies exist for every culture, but one pattern is likely to dominate over the other. In general, individualistic cultures expect people to act as individuals and try to stand out from others. They value an independent construal of the self, and those who stress being unique, striving for their own goals, expressing themselves, and being direct. By contrast, collectivistic cultures expect people to act as a member of their social group (Gudykunst and Matsumoto 1996). This type of culture emphasizes goals, needs, and views of the in-group over those of the individuals. Standing out from others, expressing themselves, and being direct are often discouraged because these could disrupt the in-group harmony by provoking adversarial feelings among the other in-group members. Such differences affect how people communicate with each other within the culture (Gudykunst and Matsumoto 1996). Members of individualistic cultures predominately use low-context communication and tend to communicate in a direct way, whereas those of collectivistic cultures use high-context communication and are likely to communicate indirectly.

The differences in communication patterns and tendencies can cause problems between Australian and Japanese forest advocates. What can happen is that the Australian advocates get confused and frustrated with what the Japanese advocates say. Applying the theory of high-context communication within the framework of collectivistic culture, the Japanese advocates may talk around and around the point. It may be because a high-context individual tends to expect his interlocutor to grasp what he wants to say in her indirect speech. To the Australians, what their Japanese colleagues say can sound evasive,
out of point, and too indirect. Thus, the Australians may not be able to understand what their colleagues are talking about even if the conversation is in English.

Another characteristic of the collectivistic cultures is their understanding of voluntarism. Voluntarism is embodied in a willingness to help others. Voluntarism is important for international cooperation because it is embodied in a willingness to help others and such cooperation is grounded upon mutual help. Within the cultural background of Judeo-Christianity, western societies such as the U.S. and Australia value voluntarism. However, Japan does not have this value. This does not mean that Japanese do not help others, but a cultural difference directs Japanese to apply different value standards to the people between insiders and outsiders. Insiders consist of their family members, friends, co-workers, or colleagues. People in individualistic cultures – U.S. and Australia – tend to apply the same value standards to all people; helping others means helping all. However, in collectivistic cultures, people are likely to apply different value standards, depending on whether a person is an insider or outsider of their social group. Because of such a mentality, Japanese forest advocates may not be so willing to help Australian forest advocates. Although not all Japanese make a clear distinction based on the insider-outsider mentality, the lack of western voluntarism within Japan is another cultural difference that may inhibit efficient cooperation between Australian and Japanese forest advocates.
Recommendations

International cooperation between Australian and Japanese forest advocates would have benefits, but it also faces serious challenges. These challenges relate to financial and human resources, distance, and cultural differences. What Australian forest advocates can do is to recognize the potential challenges associated with cooperation and to address them efficiently when they actually face the challenges. This will lead to maximum cooperation from their Japanese colleagues. The following recommendations can help the Australian advocates.

First, start with a short-term project and on an experimental basis, and undergo several such projects before launching a long-term one. In a long-term project, forest advocates tend to encounter various challenges. The significance of the challenges could accumulate, as time passes by and the advocates become exhausted. Probably, under such circumstances, keeping motivation would be very difficult. This will impede cooperation between the advocates of Australia and Japan. Thus, it would be safe and beneficial that these forest advocates get accustomed to working together and acquiring practical lessons through several short-term, cooperative projects.

Second, get Japanese interns or volunteers as translators for alleviating challenges associated with communication. Although Japanese international environmental groups have translators who are working voluntarily, Australian forest advocates need to have their own translators to save time. Such Japanese may be found in higher education programs such as natural resource management, forestry, environmental politics, environmental studies, ecology, or other programs related to conservation. However,
before bringing in the translators, there are several tips to bear in mind. Translators are different in their skills, availability (how many hours the translators can work), knowledge about the subject area, and commitment to their voluntary work. Translators often need to do some research by themselves to acquire background information of the issues to minimize wrong translation and use appropriate Japanese that fits in the context. If the translators are not committed enough, they could compromise what they should do with what they can do, and the quality of their translation would not be satisfactory. Although it is ideal for both Australian and Japanese forest advocate groups to hire a committed, bilingual communicator who can work as a bridge between Australia and Japan, it can be difficult because of the financial shortage that these advocates face. The interns and volunteers will decrease the challenges associated with communication.

Third, make agreements with the Japanese advocates before launching a project through international cooperation. Both sides will agree to ask questions for clarifying the discussion point when they do not really understand what others attempt to say. Because the communication processes are so different between Australian and Japanese cultures, such agreement can be beneficial to minimize frustration and confusion. Relating to such difficulties, it may be also helpful to reaffirm within the member groups that it will be OK if the advocates feel frustrated and confused: it is natural to feel such way. Differences tend to catch our attention rather than similarities when communicating across cultures.

Fourth, reduce the insider/outsider mentality of Japanese culture. There may be several ways to decrease this barrier, but I would recommend the following two. The first one is socialization. When Australian or Japanese forest advocates visit the others’
country and see each other in person, make the utmost use of the time after 5:00: go to bar/pub for sharing drink and foods, and for enjoying very casual conversation. (Some of the topics in the conversation may make Australians feel a little bit uncomfortable because the Japanese colleagues may ask personal questions about their family). In a formal setting from 9:00 to 5:00, Japanese tend to be business-like and not open-minded, which is an attitude for outsiders. To maximize the cooperation from the Japanese colleagues, the Australian advocates need to build good interpersonal relationships and rapport with their Japanese colleagues and encourage their colleagues to see them as in-group members. In Japan, after 5:00 is a magic time. The second way to reduce the Japanese cultural mentality is to create a sense of community between Australian and Japanese forest advocates. Like the socialization, this can also encourage the Japanese advocates to see Australian colleagues as the insiders of their social group. The effective tools for creating the sense of community include mug cups and/or t-shirts with campaign logo and very short statements for the campaign written both in English and Japanese. These mugs and t-shirts can stimulate the Japanese value of togetherness or oneness. There are some tips for the logo and the words. They should be positive words. For example, instead of “against native forest logging in Australia,” “protect native forests in Australia” would sound much better and acceptable for the Japanese whose culture values “harmony” and dislikes criticizing others. Also, use verbs rather than nouns. Using verbs not only sounds active and continuous, but also sounds very participatory and more involving in the Japanese translation because of the characteristics of the language. For example, the Japanese translation of “protect native forests” sounds synonymous to “let’s protect native forest.” Every time Japanese forest advocates are seeing the logs and
the words in their offices, they can unintentionally reaffirm the sense of community with their Australian colleagues and renew the need of their participation in the protection efforts.

Fifth, convene an international conference on impacts of the woodchip industry around the world. This is a good opportunity for all the forest advocates who attempt to protect native forests and minimize the impacts of the industry on the forests and their associated ecological integrity. The participating advocates can interact with each other in person, share their experiences and learn about the issue mutually, and view the issue from a global perspective. All of these will be beneficial for building effective strategies for forest protection. Gathering together, they can also renew and strengthen their commitment to protecting the forests.

Lastly, utilize the Internet and e-mails. The information through e-mails and the web-site provide the chances of mutual learning of an issue. It also helps the Australian and Japanese advocates discuss cooperative projects more productively. The technology helps conquer problems associated with geographical distances and the constraints linked with financial and human resources. Although a face-to-face communication may be the best and should come first before beginning e-mail communication; communication via e-mails is still vital to exchange ideas and build strategies for forest protection. There are some tips for e-mail communication with the Japanese colleagues effectively. If an Australian forest advocate has not met the colleagues he is about to send an e-mail, it is better to send the first e-mail through the Australian forests advocate who may have met or have worked with the colleagues before. Also, it is better to have e-mails translated in Japanese and send them in Japanese to increase the chances that the colleagues will read
them. For many Japanese forest advocates, it is easier and faster to read in Japanese rather than in English. Because it is faster to read in Japanese, Japanese e-mails will save time of his Japanese colleagues, and thus more of the colleagues will read the e-mails. In using e-mails effectively, they will decrease the need of travel, leading to cost savings. E-mail communication also saves time. Except for urgency, the sender and receiver of e-mails can communicate according to their schedules. They can set up a time for e-mail communication and other commitments. Consequently, they can use time efficiently.

Although international cooperation of forest advocates does not necessarily resolve Australia’s environmental damage in connection with Japan’s woodchip trade, it will initiate the efforts for the resolution. Because multiple actors both within Australia and Japan are playing catalytic roles in the problem, environmental groups within these two countries need to work together. Nonetheless, working together is not an easy task. The forest advocates have numerous challenges. Among all the challenges, securing financial resources is very important for running efficient international cooperation of forest advocates, and probably continues to be challenging for every member group at any time. The success of such cooperation also seems to depend on how skillfully and comfortably the advocates can communicate with each other. Such efficient communication requires the forest advocates in Australia and Japan to overcome the problems originating from the linguistic differences and the differences in communication patterns and tendencies between these countries. The cooperation is not a physical, visual entity. Rather, it is a mental bond, which is built within the advocates’ mind through sharing their experiences, understanding about one another, helping and supporting each other, and building good interpersonal relationships. These processes
cannot develop without efficient communication. Ensuring financial resources and communicating efficiently seem to influence the level of efficiency of international cooperation of forest advocates.

Potential means for addressing the challenges associated with such cooperation include 1) starting with short-term projects, 2) having Japanese voluntary translators, 3) making agreements to deal with intercultural communication problems, 4) reducing the insider/outsider mentality, and 5) using the Internet and e-mail. All of these recommendations could alleviate the significance of some challenges but would not resolve them. However, the cooperative efforts to protect Australian native forest by the advocates within Australia and Japan should not be stopped. Without action, nothing will happen.
Appendix One: Survey Questions

Your name/e-mail address:  
(Are you interested in the resulting summary? Yes/No)

Name of the ENGO you are working for and where it is from:  
(May I identify the name of your organization in my paper? Yes/No)  
(May I use the name of your organization in citation in the paper? Yes/No)  
(Please let me know if you have other preferences about the confidentiality).

1. Numbers of members in your organization:

2. What is your annual budget in Australian $:

3. What are the key-issues and campaigns that your organization works on?

4. How do you make campaign decisions within your organization?  
   a. Through a horizontal process, in which you discuss ideas and share concerns  
      with your co-workers and supervisors to make decisions based on mutual consensus.  
      b. Through a vertical (or top-down) process, in which you bring ideas and  
         concerns to your supervisors, and they make decisions.  
      c. Others

5. Have you ever worked or are you currently working on an international environmental problem?

   >>> Yes >>> please answer the following questions.

   >>> No >>> please go to Question #6.

   a) Do you have specific campaigns which target Japanese companies or  
      the Japanese pulp and paper industry? □ Yes/No

      >> If the answer is YES, please specify the name of the companies.

   b) Have you worked with environmental groups in other countries? >>  
      Yes/No
If the answer is YES, please specify 1) the name of the countries these groups are from and 2) the campaigns on which you and the groups worked together.

6. What forest protection benefits can you identify when building a network between environmental groups within your country or within other countries?

7. What are the challenges in building and/or maintaining the network?
   <<Examples>> Finance or resource-related problems?
   Communication with other ENGOs? (When you communicate with the organization of other countries, do the challenges include linguistic and cultural barriers?)
   Maintaining motivation to work on an issue through an international network?
   Geographic factors associated with distance and travel?

8. What constitutes a successful a campaign in your mind? (The answer includes what you would expect to get from a campaign).

9. This question may relate to the above question. Lastly, I would like to know how your philosophy towards forests. Please feel free to write whatever comes to your mind in terms of its natural values, utilitarian uses, or how forest ought to be.
## Appendix Two: The Resulting Summary of the Questionnaire on a Forest Advocate Network

The names of the organizations for which the respondents are working are 1) CHIPSTOP, 2) Eco Practical Activist Network, 3) GreenNet, 4) Native Forest Network, 5) Western Australian Forest Alliance, and 6) anonymous. (The alphabets in the table do not correspond to this order to keep confidentiality of the data).

<table>
<thead>
<tr>
<th></th>
<th>Numbers of Members</th>
<th>Annual Budget (Aus $$)</th>
<th>Decision Making Process</th>
<th>Key Issues/Campaigns</th>
<th>Have worked/is working on international env. problems</th>
<th>Campaigns which target Japanese companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>25,000</td>
<td>About 10,000</td>
<td>Horizontal process</td>
<td>*Protecting old growth forests and biodiversity; ending woodchipping of native forests; and exposing logging industry practices</td>
<td>YES</td>
<td>Yes (Marubeni, Sin Etsu)</td>
</tr>
<tr>
<td>B</td>
<td>No formal Members</td>
<td>No regular funding (Contributions from fund raising donations from supporters)</td>
<td>Horizontal process</td>
<td>*Ending woodchipping of native forests; closing the Daishowa WC mill; working for reform of Japanese paper industry</td>
<td>YES</td>
<td>Yes (the former Daishowa)</td>
</tr>
<tr>
<td>C</td>
<td>350</td>
<td>10,000</td>
<td>Horizontal process</td>
<td>*Forest protection (old growth, high conservation-value areas, rainforest, and threatened species) *Campaign target: the export woodchip industry</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>0</td>
<td>Unilateral process</td>
<td>*Identification of new species; listing of these species on threatened species act; attempting to get govt to conserve them.</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>E</td>
<td>No fixed memberships (500-1,000)</td>
<td>10,000</td>
<td>Horizontal process</td>
<td>*Protecting the remaining old growth forests and rainforests of E. Gippsland *Main focus: export woodchipping</td>
<td>YES</td>
<td>Yes (the former Daishowa and Itochu in conn. with Daishowa)</td>
</tr>
<tr>
<td>F</td>
<td>Over 1,000 internationally 200 in Australia</td>
<td>10,000</td>
<td>Horizontal process</td>
<td>*Forest conservation, management, research, investment, corporate, plantation, public and private lands, mapping, and certification</td>
<td>YES</td>
<td>Yes (MPM, NPI, and Oji)</td>
</tr>
<tr>
<td>Experience working with env groups in other countries</td>
<td>The campaigns on which the respondents and the groups worked together</td>
<td>Benefits of an international network (&amp; achievements through such a network)</td>
<td>Challenges of the network</td>
<td></td>
<td></td>
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<tr>
<td>A Yes (Holland, Europe, U.S.A., and Japan)</td>
<td>*Ending woodchipping with Japan</td>
<td>*Great success through European campaigns in preventing sales of large volumes of timber from old growth</td>
<td>*Problem with language with Japan</td>
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<tr>
<td></td>
<td>*Preventing the marketing of timber from W. Australia with Europe and U.S.A.</td>
<td></td>
<td>*Email and the Internet make building/maintaining the network easier.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B Yes (Japan and South East Asia)</td>
<td>*Australian woodchipping with Japan</td>
<td>*Gains in one country or region are not to be made at the expense of other countries and areas of forests.</td>
<td>*All of the example factors in the questionnaire (money, communication, motivation, and distance)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>*Illegal timber trade with SE Asia</td>
<td></td>
<td>*Email and the Internet helped to overcome many problems.</td>
<td></td>
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</tr>
<tr>
<td>C No</td>
<td>*Information sharing about what is happening at either end</td>
<td>*Time and the likely benefits in relation to time</td>
<td>*Money and motivation (Assistance is necessary to maintain motivation).</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>*Mutual help</td>
<td></td>
<td>*Email and the Internet solved the problems associated with distance.</td>
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<tr>
<td></td>
<td>*Media help</td>
<td></td>
<td>*Having a contact person is useful.</td>
<td></td>
<td></td>
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<tr>
<td>D Yes (Malta)</td>
<td>Pro-act campaign to stop indiscriminate bird shooting</td>
<td>*Money and motivation (Assistance is necessary to maintain motivation).</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Email and the Internet solved the problems associated with distance.</td>
<td></td>
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<tr>
<td>E Yes (Japan)</td>
<td>Boycott woodchip</td>
<td>*Reaching a Japanese audience to put pressure on Japanese paper companies *International market pressure helps to support local protest and negotiation.</td>
<td>*Language is a key barrier.</td>
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<tr>
<td>F Yes (U.S.A., New Zealand, Europe, and Japan)</td>
<td>*Pulp and paper companies with Japan</td>
<td>*Better understanding of the issues *Quicker and more effective campaigning *Building good relationships</td>
<td>*Money, language, prioritization of other issues, and distance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Climate/forests (FoE) *Certification (WWF)</td>
<td></td>
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<tr>
<td>What constitutes a successful campaign (&amp; expectation for such a campaign)</td>
<td>Views about a forest (its natural values, utilitarian uses, or how forest ought to be)</td>
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</tbody>
</table>
| **A** Expectations at multiple levels (These include new national forests for old growth forests; forcing gov. to reduce logging levels; forcing companies to stop certain types of wood; and involving thousands of people in campaigns, including people overseas). | *Western Australia's forests have been abused since European settlement.  
*We need to fundamentally change our attitude and our interactions with forests that remain. |
| **B** *The Japanese paper industry ends native forest woodchipping and refuses to buy any more woodchips from native forests, either for its mills in Japan and subsidiaries overseas.  
*The Eden chipmill closes.  
*The woodchipping industry ends. | *The forests are not a "resource" that humans alone have the right to own and/or exploit.  
*The forests provide sources of food and shelter to other species.  
*All Species have a right to live. |
| **C** *Whatever saves trees - increasing pressure on politicians to make them fear losing seats in an election, or giving serious economic pain to those who are destroying the forests. | *Forests are the ancient library of life - delicate and complex in their biodiversity.  
*Like the large whales, old forests are hunted to near extinction but without a need. |
| **D** Various expectations (They include identification of eco-problem; assessment of all vegetation, vertebrates, and invertebrates within study area; taxonomic assessment for new species found). | *A forest is the habitat for millions of species.  
*Saving the tree is sometimes not enough; saving the smallest organisms is important.  
*Substantial reduction in human population is necessary for decreasing the pressure of human activity on forests. |
| **E** *A successful campaign constitutes of many levels of success, ranging from raising public awareness to ultimately stopping the industrial clearfell logging industry, and to achieving ecological sustainability coupled with income equality. | *Forests, especially old ones, are sacred places.  
*Forests are necessary for our survival. |
| **F** *Shifting the industry from non-certified sources to certified sources and sustainable management of resources | *Forests are reserves for biodiversity, supporting the lives of many species.  
*Forests should be self-sustaining. |
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