

Globalized Forest-Products: Commodification of Matsutake

Mushroom in Tibetan Villages Yunnan Province, Southwest China¹

He Jun*

World Agroforestry Center (ICRAF-China)

P.R. China

Abstract:

Within the global framework of Sustainable Development, NTFPs (Non-timber Forest Products) draw a great deal of attentions from scholars. However, previous literature and research has mainly placed emphasis on how commercialization of NTFPs contributed to forest management and local livelihood improvement. This is absent in the debate on issues of commercialization impacts on NTFPs management and marketing. Advanced understanding of marketing process and market regulation of commons has been ignored.

Taking market issues into consideration, this study attempts to explore the cross-scale institutional linkages of commercial Matsutake Mushroom management and marketing by the application of Commodity Chain Approach. The approach concentrates on identifying the multi-level institutions which guide various actors' access to either resource or market. Understandings of commodity chain is based upon an observation of people's economic networks and performance, rather than rely on single perspective of either neo-classical, cultural morality or politics. It argued, after more than two decades of market reform in China, rural economic structures continue functioning with some influences of local cultural, historical and political context, and emerging global market or globalization. Those factors not only shape the commodity chain organization, but also guide actors' access to commodity chain, eventually access to benefit. Through mapping actor's access along the commodity chain, the study provides a holistic picture of the commercialization process of the Matsutake Mushroom. The current issues and problems of commercial Matsutake management and marketing at different levels are identified.

Key Words: Commodity Chain, Political Ecology, Access to Resource, NTFP, Common Property Rights

¹ The field research on which this paper is based was supported by the GTZ project in Support of Indigenous Knowledge for the Use and Conservation of Biodiversity in Three Ecological Regions of SW China. Also the author acknowledges Ford Foundation, Beijing Office for supporting CBIK small grant for individual capacity building, which make this research possible. World Resource Institute has support for the writing up of this paper. The Author also would like to thanks for Jesse C. Ribot put this research as part of his Commodity Chain Project Analysis" in the conference, and thanks also go to Jesse C. Ribot, Arun Agrawal, Nick Menzies and Xu Jianchu for their critical comments on the early version of this paper.

* h.jun@cgiar.org

I. Introductions

Over the past ten years, along with the slogan of sustainable development, forest conservation has been given a great deal of attention. All efforts to manage forest sustainably concern about the essential principle that the best way to ensure the maintenance of the forests (and their biodiversity) is to make them economically relevant to nearby residents. As compared to timber production and logging, extraction of Non-timber Forest Products (NTFPs) generally do not damage extensively the functions and structure of natural and regenerated forest. NTFP thus become the most economic valuable products by local forest dwellers and could potentially become the basis of a development strategy that reconciles the economic, cultural, and ecological values of the ecosystem (Nepstad and Schwartzman, 1992).

However, instead of optimistically expending NTFPs development, a number of scholars started to question about ecological sustainability and fair benefit-sharing issues with regard to impacts of commercialization process on NTFPs management and marketing (see examples by, Fox, 1995, Arnold and Perez, 1998, Rijsoot and He, 2001, He, 2002, 2003). Meanwhile, with the increasing understandings of commercialization impacts, studies of NTFPs shifted from the focuses on ethnobotany of traditionally used or consumed NTFPs and their importance to local livelihoods, to the broader issues related to socio-political aspects with economic considerations and management issues for commercial NTFPs.

Taking market issues into consideration, this study attempts to explore the cross-scale institutional linkages of commercial Matsutake Mushroom management and marketing by the application of Commodity Chain Approach. The approach concentrates on identifying the multi-level institutions which guide various actors' access to either resource or market. Understandings of commodity chain is based upon an observation of people's economic networks and performance, rather than rely on single perspective of either neo-classical, cultural morality or politics. It argued, after more than two decades of market reform in China, rural economic structures continue functioning with some influences of local cultural, historical and political context, and emerging global market or globalization. Those factors not only shape the commodity chain organization, but also guide actors' access to commodity chain, eventually access to benefit. Through mapping actor's access along the commodity chain, the study provides a holistic picture of the commercialization process of the Matsutake Mushroom. The current issues and problems of commercial Matsutake management and marketing at different levels are identified.

II. Commodity Chain Approach

In this study of NTFPs commodity chain study, to form a conceptual framework, firstly, Gudeman's "practice model" (1992) is applied for commodity chain analysis. Based upon this, NTFPs commodity chain is redefined as "*regularized network of social actors' practice, which interlocked exchanges through with commoditized NTFPs and its constituents pass form extraction or harvesting through production to end use; that emerge underlying both "price-based" and "non-price-based" mechanism*" (He, 2002:40). The concerns for this definition are to better understand how actor's economic behaviors are conducted, economic decision are made, and commodity market are organized. This perspective will provide a more contextualized theoretical background to observe the complicated Matsutake Mushroom commodity chain in southwest China.

Secondly, the conceptions of access and institution are adopted to analyze empirical situation along with commodity chain of Matsutake Mushroom. For this, I modify Leach's (et al. 1999) notion of institutions to study Ribot and Peluso's (2003) notion of access to Matsutake Mushroom commodity chain. Hence, there two aspects of access: 1) *the access to recourses*, which might be characterized as the classical property notion of access---rights of access to physical things. For Leach (et al.1999), this aspect of access had been conceptualized as "endowment", which means social actors have access to use the natural resources from property arrangement (see also Ribot and Peluso, 2003). In the other words, this is to identify what rights of access to the Mushroom differentiated social actors have and how peoples gain those access. That is the basic element, which determine what kinds of NTFPs can be extracted by whom for commercial purpose, how and by what way they can extract. It is the root of actors' access to benefit along with commodity chain.

And, 2) *the access to benefit*, which should broaden the notion of access as ability to benefit from thing, drawing upon Ribot and Peluso's idea. That can be composed of the market access, labor access, access to capital, access to social relations and access to knowledge as well as the Mushroom resources, and then all of those access subsequently contribute to actors' access to benefit. Thus, the commodity chain can be studied through mapping differentiated social actors' different access along with the process of Matsutake Mushroom marketing. That means to identify differentiated actors gain the different access at the different part of the commodity chain. It will donate to understand whom benefit and how they benefit from mushroom trading. Furthermore, to understand the dynamic aspect of both access, access control and maintenance of access will be investigated.

Notably, both access are continuously affected by multiple level and overlapping institutions, which may be the formal rule, regulation of property rights and market system, or informal rule, cultural norm and so forth. In particular, the trading regulations heavy effect how the Mushroom commodity chains are organized. In

addition, the relationships among these institutions and between different scale levels are of the central importance in influencing which social actors gain access to resource, market opportunity, labor, knowledge and so forth, further their control and maintenance of those access. Therefore, the focus of institutional arrangement for study NTFPs commodity chain should be the interactions among institutions at different scale levels, and particularly the ways they circumscribe the resources claims, management practices as well as marketing performance of different social actors.

III. Commodification of Matsutake Mushroom in Southwest China

Matsutakes Mushroom (*Tricholoma matsutake*) have been a prized edible mushroom in Japan since ancient times. However, its production has fallen dramatically in Japan since the mid 1800s when consumption was between 10,000 and 12,000 tones per year. Consumption is now approximately 3,000 tones per year of which Japan produces 1,000 tons in a good year. The balance is imported mainly from China, Morocco, North America, and South and North Korea. As a result, the past few decades have witnessed a dramatic increase in both price and demand owing to the global increase in wealth in Japan.

The Matsutake Mushroom grows in a symbiotic relationship on the roots of various soft wood trees such as *Pinus* sp. and Angiosperms such as oaks. It generates in the forest where are lower in elevation (3200 meters and below). It is therefore most Tibetan area in Yunnan and Sichuan Province. In the early 1980s, Japan started searching for alternative suppliers of Matsutakes following insect infestations to local pine forests and a decline in the yield of native crops. As a result, there is now an active industry in Yunnan and Sichuan provinces for the collection and marketing the Matsutakes for export to Japan (Yeh, 2000). Large-scale imports from China started around 1986 and since then there has been a veritable explosion in the trade for matsutakes, with refrigerated trucks bringing hundreds of tons of Mushroom from Yunnan and Sichuan provinces to Japan each year.

Nowadays, Trade of Matsutakes Mushroom became a major source of income generation for both local villagers and local government revenue. From 1990 to 1994, For instance, government revenue from taxing Matsutake trading is more than RMB 10million (about 1.2 million USD) in Shangri-La County. Also, the taxes account for 30% of county revenues, and become the major source of government revenues (Yeh, 2000). In 2001, the taxation of Matsutake trading respectively reached RMB 2.3million (270,000 million USD) in “agricultural and special forest products and 0.6 million (about 72,500 USD) in “commerce and trade management fee”. In Shangri-La county, an estimated 80 percent of the population is involved in this business in one way or another. At the community level, the cash income from Matsutake collection account for 50% to 80% in Shangri-la County. Harvesters can be paid about 40 to 50 USD per kg for top-grade matsutakes, reaching 1 000 yuan per kg for a few days of the season. This represents an enormous amount if one considers the average per

caput income of 90 yuan per year in Shangri-la counties. This large market with involvement of various stakeholders has attracted a great attention on the marketing phenomena and resource access.

IV. Mapping Access Along the Commodity Chain

The market for matsutakes is complicated. As they are valued for their fragrant odor when fresh, they are shipped from remote mountainous areas to Japanese markets in as few as 40-60 hours. During that time, the intermediary chain means that the mushroom may change hands six or seven times before reaching Japanese buyers. Furthermore, prices can fluctuate widely in response to rapid shifts in supply and demand at both regional and global levels. The much prized fresh fragrance of the mushroom means that matsutakes lose money with time and therefore must be traded rapidly. This risky short-term nature of the matsutake market is often compared with stock market. In addition, the Mushroom also can be preserved and canned, then exported to Japan. But, since the price is so slow that only few of those mushroom are process.

To tracing that complexity of Matsutake market, it is useful to use commodity chain analysis. With the definition of commodity chain in mind, Ribot's (1998) "access mapping" is a powerful tool to understand the commodity chain. This encompassed 1) identifying the actors who extract, produce, process, exchange, transport, distribute and consume the commodity; 2) evaluating income and profit at each level 3) evaluating the distribution of income and profit within each group along the chain, and 4) using the distribution of these benefits among the with groups to race out, or map, the mechanisms (both price-based and non-price-based) by which access to benefits is maintained and controlled.

Nonetheless, since focus issues in the paper is access (resource access and market access), to completely evaluate income and profits at each level will be left in black box for the present analysis. Furthermore, due to several limitations, this paper is unable to analysis the end section of the chain---Japanese market. It includes Japanese importers, wholesales, transporters, distributors, and final consumers.

Village Level of Mushroom Extraction: managing access to resources

At the first level of commodity chain, then are the mushroom extractors. As estimated, mostly 60% up to 70% villagers in Zhongidan are involved in Matsutake collection during the mushroom season, which start at early July and end at early of October. As mentioned, 70%-80% household cash incomes are reaped from the mushroom collection. During the rest of year, most villagers do farming. Thus, the other income can be generated from yaks and sheep herding and mineral and timber transport, collection of some herb medicine, and in some places, selling fuelwood and butter. However, the agricultural products such as barley, potatoes, buckwheat, and oat are mainly used for self-consumption. There seems that more women and children

engage in the collection than men, but it is by no means exclusively a female task. Instead, other than older, all villagers go to extract the products during the peak of mushroom season which is between August and September.

Within a given community, there are generally no *de jure* restriction on access to the matsutakes among the community members. In the other words, the legal institutions was just referred, when conflict and dispute among different communities occurred in term of collective forest. Instead, at intra-community level, extractors' harvest activities are confined under the village rule in name of *xiang gui ming yue*. It was variously translated as "codes of conduct" and "village rules" (Yeh, 2000). In this sense, it is what Ribot (1998) called *de facto* (extra-legal) mechanism which may include social identity, social relations, coercion and trickery, material wealth, and physical circumstance. Thus, although there is no formal institution working within a given community, villagers constitute a means of self-government which have been used to maintain social order in the countryside (Yeh, 2000). For instance, some villages require villagers who have married to another villagers to pay an extra fee for access to her/his original village's collective forest for mushroom collection---it is social identity to restrict resource access.

At intra-community level, aside from village rule for access restriction, matsutake producing forests are open to all villagers who can spare the labor time for collection. The income differentiation is mainly determined by luck and skill at finding matsutakes. For instance, in the JD community, some villagers earn about RMB 30,000 which might as the highest, the counterparts might only earn 1,000 or 2,000 in last year. In this case, according to interview, most villagers stated that luck is more important than skill. But villagers who have been collecting for many years have an obvious advantage over who have come into the activity much later. As a result, in general, each villager especial the so-called "Matsutakes collecting experts" do have a certain area for harvesting the products. Even though they do not completely exclude other community members, they have their strategy to hide spots of matsutakes usually growing. The new comer, however, may spend more time with a few or even no gain in their area. In this case, the new comer would be glad to explore a new place for collection. And, the youth in most case are following their parents to extract the products in their parents' area. Therefore, mostly, due to this practice, there are collecting boundaries are delineated. Yet, the boundaries are not absolutely aims to exclude others' access, rather than the trace of each villager's matsutake collection.

At inter-community level, the income differentiation, of course, is major determined by physical situation---ecological conditions. The communities which have good forest coverage and the forest is suitable for Matsutake growth can earn more than those communities with poor forest. Moreover, after several years collection, the village which have good rule in management the Matsutake in their forest might harvest more product and with better quality, subsequently can earn more than those villages with poor management in forest.

Commodification of mushroom at the first of middlemen

The next level of the commodity chain is the first level of middlemen who buy the Mushroom from village extractors. The middlemen are consisted of various ethnicities, however, the Tibetan is the dominant group, and others are Han, Yi and Naxi and so forth. It is because Tibetan village is located in most Matsutake productive area, which leads to a number of villagers involved in the marketing activities. Besides, notably, there is more involvement of men than women at this level of the chain. At this level, there are two channels that middlemen can buy Masutake from the villagers.

First, the villagers who reside close to the Shangri-La generally go to Shangri-La Matsutake Market directly selling their products to those town-based middlemen. The town-based middlemen are the persons who rent the stall in the Market and as waiting buyer at the Market. In this case, there are more middleman come from outside Shangri-La (most majority group is Chuxiong prefecture) than the original Shangri-Laese, therefore, there are more Han than Tibetan in the Market. For the trading activities, due to more than 150 buying stalls in the market, the village collectors might visit different stalls for seeking for a satisfied price. As a result, the negotiation with regard to the price and grading do occurred. In general, the middlemen, particularly the Chuxiongese, are employed by or have strong socio-economic ties with the large-scale middlemen or a certain export company. They send out the Matsutake everyday to higher-level actors by either vehicles or airplane, which depends on the quantities and quality. In the peak of the mushroom season, they opt to use airplane, due to large quantities and good quality. At this level, generally, the products do not be sold back and forth among those middlemen. For the out-grade mushroom (the products which can not be directly exported as fresh mushroom based on Japanese standard of grade), the middlemen tend to sell to the persons who process the products or the local restaurants.

In term of access to market, the middlemen at this level do require an amount of startup capital for market involvement (perhaps 4000-5000USD or more). They often pool resource together with friends or relatives to do the business. Besides, there are several *de jure* and *de facto* mechanism, which support or restrict their access maintenance and access control. With regard to the *de jure* mechanism, the middlemen are requested to register a temporal commerce license in order to do business in the Shangri-La Market, and subsequently they should obey by the market management regulations, such as do not buy the immature and overmature products. Furthermore, when their products are transported out, they should complete their taxation payment of those three kinds of taxes (“agriculture and special forest product tax”, “commerce and trade management fee” and “plant inspection fee”). At airport and roadblock, the receipts of those taxations will be checked. In term of *de facto* mechanism, socio-economic ties with higher-level actors are most important factor to ensure their product can be sold. In some sense, the relationship between they and

higher levels actors is more or less like “patron-client relations”. Moreover, information and knowledge in products grading and the market is not the factors support their access to market. Therefore, clearly, access in this case is not as Neo-Political Ecology School argued, which refer to the “*right to benefit*”, instead, when we do a market access analysis, the “access” should be redefined as what Ribot and Peluso (2003) referred--“*ability to benefit*”. Defining access as ability to benefit is a border notion than defining access as right to benefit, since someone may benefit through unsanctioned or illicit practices, ideological and discursive manipulations, and indirect relations of exchange and production (Ribot and Peluso, 2003).

For the second channel, the first level of middlemen can buy the products from village extractors is to directly collect the Matsutake in the villages or the nearby roads of villages. In some cases, the village also built up a certain market for middlemen renting each day in the mushroom season. In this case, a few villagers, Lama, outside traders, town-based middleman composed those groups of middlemen as the village-based middleman. Therefore, there is more Tibetan involvement in this channel of chain. Unlike the town-based middlemen, the middlemen in this channel are required a very small sums of startup capital for getting into this business. In term of trading activities, in most cases, whatever village traders or Lama do have a certain social connection with the villager extractor. As a result, even though the price and quality are determined by higher level, the traders is apt to do business in favor to the villages, which might be manifested by at a given price of grade standard the traders not so strictly requiring in quality to well fit the standard. This practice reminds us the think about the socio-cultural bases in the articulation between traders and villages in the sense of morality rather than a pure economic rationality (He, 2002). Thus, the economic behaviors of social actors and how the trading activities are conducted are guided by the broader mechanisms, which are the combination of economic, social and cultural factors, and sometimes the politics (ibid.).

The village-based middlemen transport their collections to Shangri-La market each day by rent the vehicles, and sell to the town-based middleman. In most cases, the village-based middlemen are glade to sell the mushroom to a certain town-based middleman, which he/her (mostly is he) is familiar with. Furthermore, there is a lot of buying and selling back and forth in the village level among the middlemen. For instance, there may be 20 matsutake traders engaged in the certain area of village market, only 8 or 10 vehicles traveling back to Shangri-La. Also, along the road to Shangri-La, those 8 or 10 traders may selling their Mushroom to the middlemen who wait at the road for buying the products.

For the market access, since very little of capital are required, the connection with higher level actors and village extractors become more important for village-based middlemen to involve in the business. In some cases, although the higher level actors do not provide advance fund to the village-based buyers, they do offer some advantage to the village-based buyers in order to maintain their connection. For

instance, the middlemen at village level get used to enquire the price each morning as a guiding price for their whole day's business; if the price fall down in the afternoon, the town-based buyers are also apt to buy the products at the price they told to the village-based buyers. Instead, the town-based buyers were going to check the quality rigorously. In this case, the village-based buyer would not lose a lot. So, clearly, information and knowledge is the significant element for the village-based buyer to maintain their access to market.

Interestingly, the outsider buyers do have some strategy to approach to village market, as He (2002) reminded us to think about "social geographic identity" in guiding market access. In case of Shangri-La County, at JD community, a most productive area, there are more than 50 middlemen engaged in the village market each day at the peak of mushroom season. However, there is at least one Tibetan villager from JD community accompanying with each middleman who come from outside. There may be two way to set up this kind of connection. 1) The outsider hire the villagers as the market guide to approach to village, and the villagers take the responsibility of interpretation during the process of marketing, particularly bargaining price and quality. Without this way, the outsider can buy only a few products or even can not access to the community. However, in this case, the decision-making power with regard to either price or quality is still controlled by the outsiders. Rather, the village guides only provide the service in translation and guide outsider approach to village. 2) The outsiders may hire the villagers as the so-called "market agents" to buy the products in the villages. In this case, the "agents" control all the process of marketing. Also, since the marketing activities are conducted by the language of Tibetan, the outsiders do not quite understand what is going on. Although the outsiders are holding the money in hand, they just follow the agents' decision in to pay or not to pay. But, the agents is accountable for their "boss" indeed.

Another example came from Deqin, which is clearer to understand the "social geographic identity" as the mechanism in NTFP market. In Deqin, the local market is dominated by local people, they include mainly Tibetan, but also others ethnic groups. Each time the outsiders go to the villages to buy the products always confront with trouble. The local traders may group together in order to kick outsider out. In some cases, the local traders tend to claim that the outsiders are trading immature and overmature matsutake so that the government would go to check outsiders' products strictly. It inescapably lead to the declining of quality, since the checking process normally would take a lot of time. In some cases, the villages are going to charge the outsiders a extra-fee in name of road use. But, they do not charge their "Laoxiang"----local people. Even in some cases, local traders use violence to maintain their access to market by setting up block in the road. As a result, in Deqin, I found out most market actors in whatever town or village is local people. Instead, the outsiders opt to establish strong socio-economic ties with the local traders in order to get access to the local market. Most way they do is to hire the local people as "agent". This phenomena stimulate us to observe not only the *de facto* mechanism in guiding

market access, as Ribot (1998) argued; but also how localization are emerged under the tendency of globalization, as He (2002) pointed out. This emergence of localization is an ongoing process of strengthening local identity, in this case is socio-geographic identity.

The income distribution among this first level of middlemen is widely varied. For the town-based middlemen, since they have more capital which enable them to collect more products, they may earn more, than the village-based traders. However, it also means they have to bear more risk. Among the town-based middlemen, the economic differentiation is mostly determined by their quick response to market change and their links with higher-level actors. For the local village-based traders, their income differentiation is chiefly determined by their long-standing relationship with higher-level actors. Also, their strong social connection with their own villages enable them to act as “agent” or “guide” in the market.

Enterprises' Access to the Market

Before starting to explore the next level of the chain, it should be noted that at the first level, the town-based middlemen buy the mushroom both from the village extractors at Shangri-La Market and the village-based middlemen. Thus, they are crossing two levels of the chain. Besides, due to village-based middlemen buying and selling the products back and forth, it also makes the complexity in defining the level of the chain. So, the next long the chain is the export companies and large-scale middlemen. Previously, there are only 9 companies were permitted to export Matsutake. Right now, more than 30 companies are entitled to export the Mushroom. Generally, the town-based middlemen transport the products to either Kunming airport or Kunming Xiyuan Remote Bus Station, and sell the Mushroom to companies or large-scale of middlemen. Then the products are stored in cool storage and waiting for export. The route that the Matsutake are transported to Japan is via airplane from Kunming to Shanghai, then from Shanghai to Japan also by air.

Those 30 companies all have export rights and their own Japanese customers (importers). They were permitted to export the Matsutake based on annual evaluation of their achievement in this business. Minimally, each company cannot export less than 300 kilograms of the Mushroom each year, otherwise, it can not get the permit, and can not get the permit next year (per. comm. with Li chun, director of endangered species management office, Provincial Forestry Bureau). Thus, without a commerce identity as a company, the large-scale middlemen can neither get the permit of Matsutake export nor general export rights. As a result, they are apt to selling their products to the export companies. However, before the products are sold to the export companies, the Matsutake also be sold and brought back and forth among the large-scale middlemen. According to estimating, the large-scale middlemen are increasing from 20-30 to 50-60 in Kunming during past 50 years.

Currently, however, in addition to the companies monopolizing the export process, those large-scale middlemen also engaged in the exporting. In particular, the middlemen who have relations with the Japanese importers or their representatives in China are more involved in the export process. In practice, they do not sell their products to the export companies, rather, directly sell to Japanese. Since they do not have neither the permit nor export right, the export work in term of some official documents work such as declaration in the Customs should be done in name of one export company. As a result, the some export companies only play the role as export agents, instead of real involvement in the business. And, the large-scale of middlemen pay to the export company each year for the “export agent fee”. Clearly, the market access at this level is highly impacted by *de jure* mechanism such as export rights and permit. However, since the *de jure* mechanism in some sense is not so flexible, there is other kinds of practice emerged to enlarge social actors’ access to market. In addition to whatever *de jure* mechanism or *de factor* mechanism, it is clear the strong socio-economic ties is a very important element for each levels of traders to maintain and control their access to the market. The degree of access to market normally determined the economic differentiation at both vertical and horizontal dimensions.

Notably, there are distinctive features of the Matsutake trade: high price instability and elaborate grading. Matsutakes are subject to dramatic price fluctuations, as the market responds to rapid shifts in supply and demand at both the regional and global levels. For instance, in 2002, the highest price emerged at the very beginning of the Mushroom season in early July, which reach RMB1200 per kilogram for the top grade. However, there is only one day at this price, then the price drop to around RMB 200-300 per kilogram. The explanation is that highest price is for sample Matsutake of this whole year with small amount, which aims to let Japanese have some idea of the quality in this year. Then, RMB 200-300 are perceived as normal price. Besides, Matsutake are mostly luxury for Japanese also. They are used to give the Matsutakes to their relatives or their parents as gift during the Moon Festival (mid-Autumn Festival as China). Therefore, the price would be increased at this time since the enlarging demand. After, the price would be dropped rapidly on the next day of the Festival.

Furthermore, the supply of the Korea still highly impacts on the fluctuations of the price. Sometime, the price also dropped from RMB 350/kg to RMB 220/kg within a few hours. Especially, in this year, the Japanese Media claim that there were pesticides in the one package of the expected Matsutakes on August 29. Then, the next day 30 tons Matsutakes which just at the port were refused to be imported. As a result, the price dropped from RMB 400 to RMB30-40 within two days.

Because they lose value with time, no businessmen can afford to hold onto the matsutakes until the price is right. Also, normally, no body can foresee when the price is right. Thus, the matsutake trade can be a risky proposition for all actors who involved. Besides, the more capital the person have, the more products he/her can

trade, the more benefit he/her can get, simultaneously the more risk he/her bear. For instance, as one large-scale of middlemen said, he loss more than RMB700, 000 in this year, due to the “pesticides event”. That I mentioned above, mostly people in Shangri-La are compared the instability of stock market as the same as the Matsutake trade. In this sense, it is too difficult to evaluate who earn more, who loss. Since the traders have to bear a great deal of risk, the middlemen are not the parasitic intermediaries who can accumulate wealth at expense of poor forest dwelling extractors (He, 2002). Rather, they provide a crucial function in the trade.

To identify quality of the Matsutake, there is a great variety of classification of the grade. It are separated into many grades, based on size, firmness, and overall quality. Very small matsutakes are of course worth less than ones both on a per unit weight basis and because of overall weight difference. The standard of the grade is varied based on the Japanese importers each trader do business with. For instance, one importer may require more than 17 grades in the classification. Another one may be only grading the matsutakes as 10 classes. However, the grading is conducted by observation in wherever village or export market. Previously, middlemen were apt to buy the products without grading. However, along with the increase sensitivities of quality, they now buy matsutakes with grading. In some cases, the products are sold one piece by one piece at village level in order to get good quality.

V. Conclusion

The paper explored the commodity chain of commercial Matsutake, and found out the chain is so complicated indeed, which is a complex social network embedded in the cultural, social, economic and political context of both macro and micro levels. Interestingly, at the more grassroot level, cultural factor plays more role in guiding and shaping local access to both resource and market, further the benefit from the Mushroom business. Conversely, the more upper level, political and economic factor had more space for making impact of the commodity chain and access to market. It subsequently determines the way and amount of benefit generation. Obviously, the dynamic institutions and mechanism along with commodity chain is very factor which determine the access to resource and market, further result the social and economic differentiation among stakeholders. It is clear illustrated in this case, mapping access along with commodity chain is powerful approach to understand the market regulation and resource management arrangement with regard to globalized commons (Matsutake Mushroom).

Along that, the middlemen are not always the persons who reap the benefit at expense of local poor farm. Instead, the benefits that some them can earn are just a bit above the subsistence level, and some of them are even indebt. Thus, elimination of middlemen should be carefully think about, since some of them are provide a crucial function to stimulate in commercialization and globalization, and also help to distribute risk widely, as He (2002) argued. In contrast, at higher level, the export

regulation also constrains market development and fair benefit distribution. Hence, a promotion and improvement of market deregulation is also recommended for further action and policy innovation.

VI. Reference

- Arnold, J.E.M. and Manuel Ruiz Perez (1998) "The Role of Non-timber Forest Products in Conservation and Development", in Eva Wollengerg and Andrew Ingles (eds.) **Incomes From The Forest: Methods For the Development and Conservation of Forest Products for Local Communities**, Pp. 17-41. Bogor: Center for International Forestry Research, World Conservation.
- Fox, Jefferson (ed. 1995) **Society and Non-timber Forest Products in Tropical Asia**. East-west Center Occasional Papers Environment Series No.19, August 1995, Hawaii: East-West Center.
- He, J. (2002) *Local Institutional Responses to Commodity Chain of Non-timber Forest Products: A Case Study in Nuozhadu Nature Reserve, Yunnan Province, P.R. China*. Unpublished Master Thesis in Sustainable Development, Chiang Mai University, Thailand.
- He, J. (2003) "Cross-scale Institutional Linkages of Commercial Matsutake Mushroom Management and Marketing: a Preliminary Study of an NTFP in Zhongdian County, Yunnan, China", in Xu Jianchu and Stephen Mikesell edited *Landscapes of Diversity*. Kunming: Yunnan Science and Technology Press. pp. 193-197.
- Leach, M., R. Mearns and I. Scoones (1999) "Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management", **World Development** 27(2): 225-247.
- Neumann, Roderick P. and Eric Hirsch (2000) *Commercialization of Non-Timber Forest Products: Review and Analysis of Research*. Bogor: Center for International Forestry Research.
- Ribot, J. C. (1998) "Theorizing Access: Forest Profits along Senegal's Charcoal Commodity Chain", *Development and Change* 29 (2): 307-341.
- Ribot, J. C. and N. L. Peluso (2003) "A Theory of Access", *Rural Sociology*, 68 (2): 153-181.
- Rijssoot, J. V. & He P.K. (eds. 2001) *The International Seminar On Non-timber Forest Product: China Yunnan, Laos, Vietnam*. Kunming: Yunnan University Press.
- Yeh, E. T. (2000) "Forest Claims, Conflict and Commodification: The Political Ecology of Tibetan Mushroom-Harvesting Villages in Yunnan Province, China", *China Quarterly* 161: 264-278.