# A Study on the Forest Management Policy and Revitalization Alternatives of the Private Forest Management in Korea

Jong-Choon Woo\* and In-Hwa Choi

Kangwon National University, Chuncheon 200-701, Republic of Korea

**ABSTRACT :** This study is tried to investigate and analyze the changing history of Korean forest management policy and revitalization alternatives of the private forest management. Korean forest management policy could be divided by two group periods, one is the forestry policy age through afforestation and reforestation, the other is the forestry policy age through forest management. Recently, the revitalization policy for the private forest management was evaluated through the result analysis of the 4th forest basic planning age for 10 years that is gone from 1998 to 2007, but it is not sufficient for the private forest management revitalization, and has still some fundamental problems. Therefore, this study is aimed to present various kinds of plans for the private forest management revitalization during the 5th forest basic planning age that has begun since the beginning of 2008.

Keywords : fForest management policy, Revitalization alternatives, Forest area possession scale

#### INTRODUCTION

Private forest management occupies very important part because it dominates 69% of the whole forest area in Korea (An et al., 2007; Korea Forest Service, 2007). but the real situation is very different. It has probably various reasons, forest management policy in Korea is focused on the national forest that was held by country and the public forest that was held by local government. However, private forest management is more important not only for regional balanced development but also for the balanced side of forest management (Woo, 2000).

The fifth forest basic planning period began in Korea for 10 years since 2008 (Korea Forest Service, 2007). It was internally estimated that there was no forest management for a long time in Korea at the real meaning. So it is very large meaningful to look back again at the present time. In this study it is tried to take a view of the present condition of the private forest management in Korea, through analyzing present condition and problems of private forest management until up to the present from forest management policy of putting afforestation first when begun with the early 1970s.

And, private forest management that is taken a serious view of economical efficiency and profit efficiency, is facing the new challenge in 21c of sustainable forest management. Also, It is very important matter to find counter plan for revitalization of private forest management, in turning point to manage the forest confronting climate change like global warming.

## CHANGING HISTORY OF KOREAN FOREST MANAGEMENT POLICY

- 1. Forestry policy age through afforestation and reforestation
- 1) The 1st period of national greening plan

The korean forest was ruined through the Forest Plundering of japanese colonial age and Korean-war for 3 years and flowing Poverty mourning social economy. So the forest

<sup>\*</sup> Corresponding author: (E-mail) jcwoo@kangwon.ac.kr

<sup>\*\*</sup> Advance in Forest Management and Inventory-selected papers from the international conference of IUFRO(Div. 4.01, 4.02, 4.04), Chuncheon, Korea, Oct. 13-17, 2008

growing stock was not over 6  $m^3/ha$  in 1952. It has remained only 11  $m^3/ha$  in 1972 (Choi and Woo, 2007). Therefore, The 1st Afforestation 10 years plan (1973-1978) was operated for afforestation of all country and the Office of Forestry was transferred over from the Ministry of Agriculture and Fishery to the Ministry of Home Affairs in order to operate the strong forest policy in 1973.

The Forestry Administration presented early national greening as the basic direction of forest policy by analyzing the forestry status in 1972 and implemented afforestation, erosion control and investment plans systematically. To prevent destructive logging, over-harvesting, forest fire, illegal entry into forests and the compulsory reforestation regulation to large or small logging operators, the forest policy system was also enacted. Strict implementation of these measures contributed to the forest protection and reforestation establishment and as a result early national greening.

This plan aimed actually to afforestation of 1 million ha until 1982, but the plan was completed in 1978 four years ahead of its schedule. Reforestation and tending were over-achieved by 1.08 million ha and 4.2 million ha in 1978 more than the planned areas 1 million ha and 3.8 million ha, respectively.

#### 2) The 2nd period of national greening plan

The 2nd afforestation plan was established in 10 years (1979-1987) to the target of mountain village economic raising through the creation of large-scale commercial plantation with long rotation species since 1979. In this period there were the introduction of Completion of erosion control afforestation, promote of forest road construction business, mountain area utilization division system, and all of these plans came from the tending business of good natural forest, mountain area and wild stream erosion control, inclusive of afforestation of large-scale commercial forest area, almost 370,000 ha.

As a results, almost 1.07 million ha were afforested until 1987 and the desolated mountain district had been restored and nation wide afforestation had been completed with actual results recorded of afforestation of 7.7 million ha and mountain district erosion control.

#### 2. The age of forestry policy through Forest Management

#### 1) The third period of forest resource establishment plan

It became possible that forestry policy was promoted for forest resources in forestry district, because two periods of the afforestation forestry policy were successful. So, the way of forest resource establishment for forest management had been developed since 1988 (Korea Forest Service, 2007). In this year The 3rd forest resource establishment plan (1988~1997) was started. The aim of policy was the maximization of the forest area utility through the mountain area income development and the promotion of forest public function. Consequently, it made the foundation for forest resource establishment.

Establishment of commercial forests of about 330,000 ha through the diversity of planting tree species, construction of seventy recreational forests, and silviculture and tending areas of about 3,040,000 ha were implemented during this third planning period. In addition, the forest road (about 1.1 km) and the distribution network system of forest products were extended. Forestry promotion law also was enacted in 1997. Because there was the diversity in the species of trees of afforestation, all of it could be achieved.

# The fourth period for the establishment of the foundation of sustainable forest management.

The aim of the fourth forest basic planning period, which had been planned from 1998 to 2007, was to build up the foundation of sustainable forest management which is to realize the forest welfare nation in a long-range forest policy (Korea Forest Service, 2003). In that time, development of valuable forest resources through the implement of the intensive tending, also construction of delightful and healthy forest environment, the promotion of the public functions, the revision of forest related laws, the upbring of competitive forest industries and the encouragement of the international cooperation of forestry were carried out.

First of all, forest related laws such as forest area

management law in 2002, forest fundamental law in 2001 and so on were reorganized to 12 forest functional laws until the year 2005, including 8 new prepared forest laws. The old forest law system, which was the restriction centered law for the tree planting, was ended finally in August 2006 (Choi, 2003).

# POLICY DIRECTION FOR THE REVITALIZATION OF PRIVATE FOREST MANAGEMENT

1. Promotion target of the 4th forest basic planning period

In order to activate private forest management the forest policy direction was set up for the improvement of forest income of forest owners and the diverse forest functions (Korea Forest Service, 2003).

#### 1) National support and management system improvement

- (1) Raising the investment efficiency through the differentiation of financial support system.
- (2) Leading management scale systematization through the improvement of forest management planning.

Being planned "government policy funds and the taxation system are supported intensively to the private forests owned more than 10 ha that are managed according to the forest management plan" and planed supporting it first, in case of managing collectivized over 10 ha with forest management plan on cooperative management and representative forest management.

(3) Activating the forest multiple-purpose management (Agroforestry) that supplements the long term speciality of forestry.

2) Upbringing of autonomous forest management subject

- Guiding paltry forest owners at the possession scale by cooperative forest management activation.
- Rearing charitable forest managers and forestry successors to the core forest management subject.
- (3) Encouraging and promoting the forest management of absentee forest owners by representative forest management.

- (4) Introducing a forest management expert consulting system and bringing up foresters who have new advanced ideas.
- (5) Establishing middle- and long-term development plans of forestry cooperatives.

Besides, setting forest policy direction to solve following problems like subjects for improving the system of taxation and banking system, constructing income safety network and finding out new investment funds. the fourth general planning period was opened with that vision of "embodiment of rich green country that person and forest get put together".

#### 2. Result analysis of the fourth forest general planning age

Suggested various kinds of good policy for revitalization of private forest management, but private forest management was stayed still yet. so it was contemplated as following suggestions before the 5th forest basic plan age (Korea Forest Service, 2007).

- The result for this period was analyzed insufficient, even though revitalization forest management policy was promoted through overcoming structural problems like petty character of forest ownership area and longterm investment of private forests. The propulsion of forest policy program by private forest ownership type like representative forest management, cooperative forest management and so on was inactive and income safety net construction was insufficient such as forest insurance, system of taxation and so on.
- 2) Market competitive power and status as forest industry of domestic forest products were dwindled by increasing of the imported forest products. Processing domestic forest products and utilization technique development and circulation, quality control and cluster business propulsion etc. for raising market competitive power were insufficient.

 Private forest management policy direction in the 5th forest basic planning period (2008-2017)

The target forest policy of the 5th forest basic planning period was to make forest management situation that can be guaranteed the stable income for the revitalization of private forest management. The specific detailed plans were presented as follows (Korea Forest Service, 2007; Korean Society of Forest Policy. 2005).

- Reorganizing national support system about private forest.
- Rearing charitable forest owners and forestry successors to core forest management subject.
- Constructing foresters income safety network that can prepare against natural disasters, and improving the forest taxation.
- Rearing Forestry cooperatives to the institution for foresters and forest owners.
- Reorganizing present forest management system to the technical guide system of forest management for consumers.
- Constructing private forest management system newly and expanding preparing areas of forest management planning.

# THE CONDITION AND PROBLEM OF KOREAN PRIVATE FOREST MANAGEMENT

The number of forestry family that engage in forestry is about 97,000 households in Korea. Among them, the full-time forestry households are only 11%, while the ratio of the additional forestry households is 88% as a side job (Korea Forest Service, 2007). The main types of forestry business are the cultivation work of ornamental plants, medicinal plants, mushrooms, fruit trees and so on.

#### 1. The paltry of forest area possession scale

In Korea, the area of private forest is 69% of whole 6,390,000 ha, so the management of private forest is more

important than others. However, 2006 now, the possession scale of the forest owner on average is no more than 2.2 ha (Korea Forest Service, 2007). It is because the number of the forest owner is about 1,990,000 persons and they occupy it about 4,490,000 ha. In addition to that point, it is hard to manage systematically the private forest, since petty owner of forests having the forest area under 5ha is 91% of whole forest areas.

The number of the forest owner who have more than 10 ha is about 75,000 persons, 0.7% of total owners, and who have over 50 ha is 5,870 persons, 0.3% of the total owners(Korea Forest Service, 2007). This statue is very special in the korean forestry. Consequently, It is impossible to expect the forestry management through each individual forest owners, because the most of owners are paltry in the case of forest area possession scale. Therefore, it is requested that the scale of forest management should be expanded for being normalized forestry in private forest.

#### 2. Excess of absentee forest owner

The resident forest owner and absentee forest owner are divided according to residential area. Resident forest owner is the person taking his present address in place where the managed forest is situated, and absentee forest owner is the person taking his present address to urban areas, who inhabit in that area, where is located the forest that is the target of forestry management.

Forestry Management can not be revitalized, because the ratio of absentee forest owner is almost 47% of whole forest owners and their possession forest area is about 50% of whole forest areas in Korea (Korea Forest Service, 2007). that point is a main reason, not becoming revitalized. Therefore, the alternative of forest management is required concretely about absentee forest owner's forests for the revitalization of Private Forest Management.

### 3. Poor results of forest management planning ratio

The forest management planning rate was dropped rapidly,

because the way of private forest management planning was changed from responsibility to encouragement. Making a forest management plan is rightful in order to manage the forest normally. One special method is needed to make the forest management plan because the preparing ratio was dropped down at that time of encouragement very much more than at the time of responsibility, like that the preparing ratio of forest management plan was seen to 94% in 1997, 59% in 2000, 48% in 2002, 39% in 2004, 41% in 2006 in case of private forest.

But there were traces of some efforts to revitalize the private forest management in 1980. The preparing system of forest management plan was established through the revision of forest law in 1980 (forest basic plan  $\rightarrow$  regional forest plan  $\rightarrow$  forest management plan), and the forest cooperative organizations have supported through the assistance business to prepare the cooperative forest management plan for paltry private forests and through the improvement of private forest management plan in 1983. The operation outline of forest management plan was established in 1993 to integrate the management plan operation outline was revised in 1994 and the forest business report period was shortened by the improvement of the preparing steps of forest management in 1997.

## DISCUSSION AND PROPOSAL FOR KOREAN PRIVATE FOREST MANAGEMENT REVITALIZATION

Chronical problems remain still as a result of analyzing with center of contents of implementing the proper target for revitalization of private forest management, although there are some differences at the results according to the time.

## Forestry management policy direction to overcome the paltry of forest area possession scale

To overcome this problem the proper method already were presented, but it was not settled strongly. That is the attempt of the systemized forest management through the cooperative forest management of paltry forest owners. Such attempt was embodied through contracting of the agreement of forestry technical cooperative business between Korea and Germany in 1974, and the cooperative forest management model business was enforced as one example of the forest technical cooperation from 1975 to 1984.

After that time 15 guidence divisions for the cooperative forest management were established in the whole country from 1984 to 1989, and enlarged to 43 regional areas until 1994. So 247 cooperative forest management bodies were established at 8 provinces and 45 regional areas in the whole country until 1999. The owned areas by cooperative bodies were 507,569 ha that was 11% of whole private forest area and the average area of each cooperative body was 2,055 ha that was a normal scale for the Forest Management.

These cooperative bodies did keep going on 247 until 2002, but these bodies did decrease to 239 in 2003, and after that it fell down to 236 in 2004, 234 in 2005, 214 in 2006. But forest areas and forest owners were increased to 2,007,000 ha and 38,215 peoples from 18,004,000 ha and 29,421 peoples (Korea Forest Service, 2003~2007).

There may be many reasons why Cooperative Management have not been activated but in my opinion, the most critical ones are the unsatisfying purposes of the forest owners and the failure of persuasion about the original functions of forest.

And the forest has a lot of restrictions because forest has functionally much public benefits, but there were not enough efforts to backup these matters legally. So, making forest laws that separates the right of ownership and management in Private forest, could be one of the solutions (General Union of Forestry Organization, 2005). It is not a simple problem, but in my opinion, preparing alternatives to separate ownership and management and systemizing the forest owner scale with 2,000~5,000 ha, carring out side by side with MB governmental practicalism, could be one good solution.

## Forest management policy direction for solving the problem of absentee forest owner

So far, problems of absentee forest owners have been one of chronical problems in Korea. So as the way to solve this problem, a representative management system is being enforced, but the outcome is not meeting our expectation. From 2000 to 2004 the business program of forest area 50,000 ha was set annually and from 2005 to 2007 30,000 ha was set for each year. So the total amounts of 8 years were 340,000 ha (Korea Forest Service, 2007) and the contracting result was 411,085 ha that exceeds expectation by 121%, but the actual result was 111,653 ha, only 33% of expectation.

Therefore, sufficient policies that can settle down the representative forest management system, are essential. First, as I mentioned before, by separating the right of ownership and management, not only for absentee forest owners, but also for resident forest owners who are not equipped with management intention with securing the right of management, so called the representative management can be implemented.

By integrating and reorganizing not enough well managed bodies, well managed bodies can be supported intensively, and in case of bodies that are dissolved at the integrating stage, their management policy should be changed to representative forest management system and supported prior to others to activate these businesses.

#### 3. Improvement of Forest Management Planning System

Forest Management Plan is essential to raise and manage Forest resources continually. Practices without plans are not better than house built on the sand. In order to prepare for forest owners who have more than certain amount (10~30 ha) Forest Management Plan prior to others, they should have a lot of advantages and incentives in various viewpoints. So after certain stage, it is needed to induce forest owners who have more than certain amount of forest to draw up Forest Management Plan compulsorily.

## Identity establishment of National Forestry Cooperative Federation

National Forestry Cooperative Federation (NFCF) has to establish its original identity. It has to go back to its original function that forest owners can join in National Forestry Cooperative Federation more than before. Therefore, it is needed so as to inforce the qualification criteria to join as a member association by National Forestry Cooperative Federation Law to settle down the foundation of this Federation, centering of forest owners. Through such way, the alternative to revitalize private forest management will be searched.

# 5. Searching for private forest management that can be adapted in globalization age

Sustainable forest management is one general trend at 21century. Even private forest owner has to percept that private forests are also forests on Global village to satisfy environmental age. Apart from international trades, it is needed to be conscious that growing and using forest resources later are improving Global village's environment. One of the means to go into such action is Forest Certification.

So far Forest Certification was implemented only for natural forests and public forests in Korea. Forest Certification is very important in Korea because of big areas of private forests in Korea. It can be hesitated because of high expense problem of forest certification, but Private Forest Certification has to be promoted by the proper way, because of the importance of private forests in Korea. For that, as I mentioned before, the forest management in 21c has to search the best way for human and forest to live together.

## LITERATURE CITED

- Choi, I. H., 2007. Forest related law. Vol. 1 and 2. Forest Policy Lab of Department of Forest Management in Kangwon National University.
- General Union of Forestry Organization. 2005. Symposium for utili-

A Study on the Forest Management Policy and Revitalization Alternatives of the Private Forest Management in Korea · 73

zation activation of domestic production wood in wellbeing age. pp. 13-45.

- Korea Forest Service. 1988. The Third National Forest Plan (1988-1997): Outcome and Consideration of Forest Resource Establishment Project.
- Korea Forest Service. 2003. The Fourth National Forest Plan (2003-2007) Alteration.
- Korea Forest Service. 2007. The Fifth National Forest Plan (2008-2017).
- Korea Forest Service. 2000-2007. Statistical Yearbook of Forestry, No. 30-37.

Korea Forest Service. 2007. Annual report about forest and forestry

trend of the year 2007.

- Korean Society of Forest Policy. 2005. Forest policy symposium proceeding of forest law age. pp. 15-39
- Woo, J. C. 2000. Development of Private Forest Management Information System in Korea. Ministry for Agriculture and Forestry. 190pp.
- Woo, J. C., and I. H. Choi. 2007. Developmental process of forest policy direction in Korea and present status of forest desolation in North Korea, Journal of Forest Science 23:35-49.
- An, J. M., Woo, J. C., Yun, H. Y., Lee, D. S., Lee, S. H., Lee, Y. J., Lee, W. K., and Y. J. Yim. 2007. Forest Management, Publishing Company of HyangMun-Sa. pp. 31-34.