

FRUIT CULTIVATION TECHNIQUES
FOR APRICOT CULTIVATION
FROM JAPAN EXPERT



Dr. Ichiro Kajiura as the short-term expert (Fruit Cultivation Techniques Technical Advice for Apricot Cultivation) came to the Kyrgyz Republic between from July 1 to 14, 2012. When first his visit to Kyrgyz Republic in February and March 2012, he researched apricot cultivation of northern Kyrgyz (please refer the News Letter No.2.) Based on the study, he made a draft manual on apricot cultivation in the dry area in the western part of Issyk-Kul and Chui province including the appropriate technique. The draft manual is under translated to Russian, and you can obtain the manual in the near future.



Dr. Ichiro Kajiura on a field practice

During the 2nd visit, he had expected the apricot producers' techniques and knowledge are strengthened. Using the draft manual, seminars were held at Ak-Beshim, Balykchy and Ton. The expert gave lectures for appropriate apricot cultivation techniques & management (irrigation method, maintenance of cover grass in the orchard, selection of varieties, orchard management, pest and

insect management etc) to the forest users, the apricot producers and the forest office staffs. After the seminars, field practice as technical demonstrations including pruning were implemented at fruit gardens with detailed explanatory illustration.

His study and suggestion about the apricot culture in Kyrgyz Republic;

Adult tree

In Kyrgyz Republic, the cold resistant fruit trees such as an apricot and an apple have been cultivated. But, under the long period of the planned economy, orchards had changed into the wheat fields and pastures. Recently, to export apricot fruit to Russia, many young apricot trees have been planted. However, old trees over 40 years old have been left in the home gardens.

Some apricot orchards, found in the village, are managed combining with the animal husbandry. These trees are left under non-managed condition. Woods from the lower position of the trunk have been die-backed because of the low level of solar radiation. Tree height of them is high and the ladder is used to pick fruits.

In general, the distance between the neighboring trees is about 2m. In some orchards, trees are planted at the 4m intervals and the primary scaffold branch develops from the low position. In this orchard, the grower cut the main trunk after about 10 years. So, cut surface is big and is painted by some paste with the fungicide.

There is no good orchard for the newcomer in the village. Therefore, it is necessary to make a good

orchard or good trained trees for newcomers as an excellent sample.

Young tree

After the breakdown of USSR, the apricot orchard had been changed from wheat field. Therefore, distance between trees was 5m, because weed was controlled by tractor according to the strong instruction from USSR.

Tree training is not managed well without imaging of tree shape or tree height in future. It is necessary to indicate the ideal tree shape of 1st year, 2nd year, 3rd year, and 10th year. To make an ideal tree shape, the primary scaffold branch is distributed at the lower level of the tree, and secondary scaffold branches are made from the primary scaffold branch. Sometimes, sucker develops from the grafting point. Deficiency of fertilizing and watering are observed. On the new planting, it is recommended that the distance between rows is 4m that of neighboring trees is 2m.

Nursery

Input of manure and fertilizer should be made before sowing seeds for grafting seedlings. It is observed that the number of good seedlings for grafting is small.

Scion wood is obtained from small number of the elite trees. Therefore, grafted seedlings are genetically homogeneous. In general, an apricot shows self-incompatibility. So, in the orchard, pollinator should be planted.

Nishikawa Tatsuji

HISTORY OF THE PROJECT IN KARASAEV

PILOT SITE



In 2010, "Conservation of the River Side Forest on the Territory of Tup LH and Karasaev Aiył Aimak" on the Joint Forest Management pilot activities began.

Because of the lack of interest in preserving the trees along the Tup River, the local people think that the forest especially in the territory of Aiył Aimak is no one's property. As the result, local people illegally cut trees or windbreakers, LH decided the replanting low-value trees instead of valuable trees, the river bank is washed out, fertile layer of arable soil is demolished, and land is depredated. In winter time, houses are heated by solid fuel. Because of the high price of coal, low-income residents force to cut down trees for firewood.

Recently, the number of livestock has increased and local people use forest land for pasture also. The livestock concretely damage trees, shrubs and ecosystem, which makes the soil erosion.

To solve these issues, Tup LH and Karasaev AO prepared a project proposal to the JFM project. The project goal is solving problems by effective land use for suitable plantation, cultivation and restoration of riverside forest, with close collaboration of Tup LH, Karasaev AO and forest user groups.

Existing problems can be solved by:

- Involving local people in the Joint Forest Management;
- Increasing interest in environmental protection;
- Creating plantations of fast growing species such as poplar and willow, which is used as firewood or building material;
- Growing and selling fruit tree seedlings to create orchards and get profit;
- Establishing forest plantations of various local species beside the natural ecosystems and expanding the areas.

Close work of LH, local self-government and local communities was necessary to solve social issues and to conduct forestry activities on the project. Also an agreement of the Joint Forest Management worked out.

Conducting a number of forest activities for the environment protection, reducing illegal cutting and

planting seedlings will favorably help to improve the ecosystem on the territory of Karasaev AO.

88 residents of Karasaev AO were included in JFM. Originally 3 Jamaats were created. The Jamaat helped to construct a bridge across the Tup River in Toktoyan village and a greenhouse in Chon-Toguz-Bai village. Tup LH allocated 107.4 ha of riverside forest for the project.

9,760 pieces of seedlings were planted on a territory of 13.4 ha to increase the forest covered area in the frame work of the project in 2010-2011. Tup LH provided 7,760 pieces of seedlings. JICA- JFM project provided 2,000 pieces of apple and apricot seedlings. JICA -JFM project assisted financial support for the construction of the suspended bridge across the Tup River between Toktoyan and Santash villages. Currently, the local people use the bridge to implement works on planting seedlings and sowing agricultural crops.

The greenhouse was built in Chon-Toguz-Bai village for growing of decorative grafts species such as spruce and juniper.

Tenants grew up 2,000 pieces of poplar seedlings, which are planned to plant in the forest. It is also important to note that residents of other neighboring villages located along the floodplain of the Tup River, are also interested in the project of JFM. Local people gradually collect non-timber forest products, but this is not enough to attract more residents to the Joint Forest Management activities for the conservation of natural areas.

In 2012, another two Jamaats were included in Joint Forest Management. First Jamaat, in the territory of Toktoyan village, Karasaev AO, planted 7,000 pine seedlings on the area of 5.5 ha. The land was provided by Karasaev AO. Second Jamaat, in the territory of Taldy-Suu village, Taldy-Suu AO, planted 7,000 pieces of grafted poplar and planted 0.03 ha of elm tree. Taldy-Suu AO provided 1.0 ha of land for the nursery of JFM activities.



Suspended bridge across the Tup River



School competition

The local people become more interested in forestry, and actively involved in effort to protect forests and planting seedlings. After their involving in the project, reduced to cut young trees in riverside forest and increased growth of young trees.

JFM project aims to improve the environment, to increase the productivity of land, by planting trees and shrubs, creating windbreakers and protecting bank lines on erosion areas. Involving local people in Joint Forest Management project will help to solve environmental, social and economic issues of the residents and provide additional employment.

With this project, we would like to attract more people to the Joint Forest Management project, to improve the ecosystem of the region and reduce the level of poverty for a bit.

Kachaganov Jenish

FOREST OWNERSHIP AND ADMINISTRATIVE BODY IN JAPAN

Forests in Japan are classified into State owned forests and Non-State owned forests. Almost all of State owned forests belong to Forestry Agency (Ministry of Agriculture, Forestry and Fisheries), and quite small part of State owned forests belong to several ministries.

State owned forests belonged to Forestry Agency (hereinafter, "National Forest") has 7.62 million hectares of forests (About 30% of total forest area in Japan). Forestry Agency has 7 Regional Forestry Offices. And 98 Provincial Forestry Offices and 14 sub offices are established under these Regional Forestry Offices. In addition, 1256 Forest Ranger Offices and 65 Erosion Control Offices are established under each Provincial Forestry Office. The staff number of National Forest is 4630 as of April 2011.

Regional Forestry Office implements forest planning and control of each task such as afforestation, felling, erosion control, road construction, etc. Provincial Forestry Office implements each task mentioned above under control of Regional Forestry Office. Forest Ranger Offices are established for control of forestry works, guidance to visitor and various surveys necessary for forestry works. Erosion Control Offices are established for the purpose of special treatment for erosion control such as Erimo.

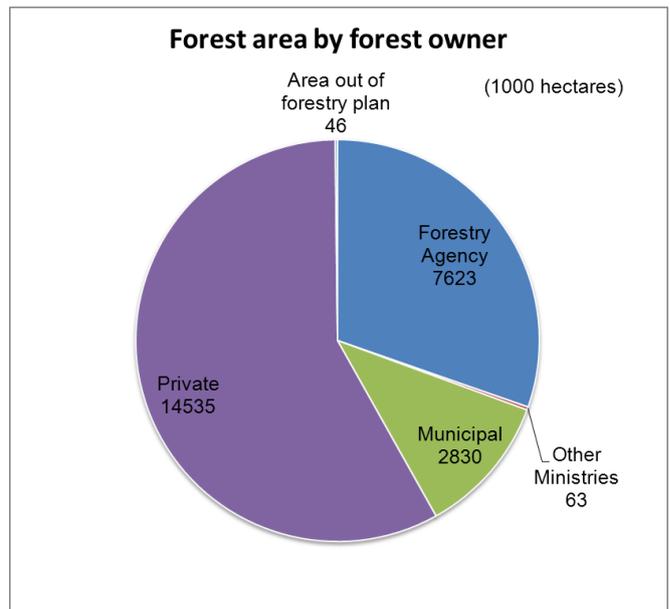
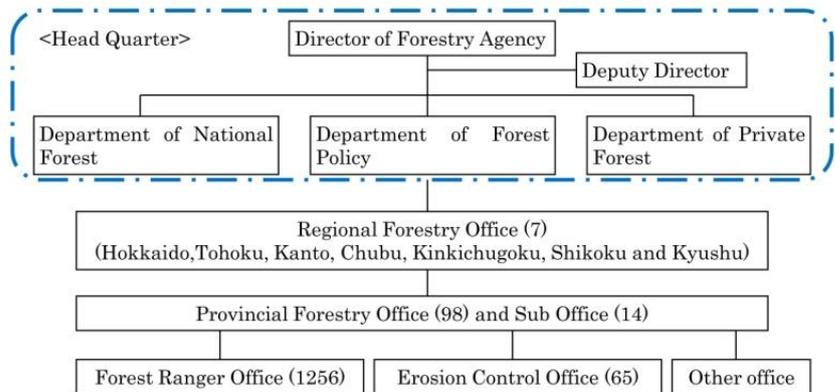
Non-State owned forests classified municipal forests and private forests. Municipal forests are the forests owned prefectures, cities, towns and villages.

Total area of Municipal forests in Japan is 2.83

million hectares and total area of private forests is 14.54 million hectares. Guidance and support for forestry in municipal and private sector implement by each prefecture. Normally prefecture has forestry department or bureau for various tasks such as guidance for cities, towns or villages, financial support for thinning and plantation, enforcement of forestry organizations, implement of erosion control works, promotion of timber industry and management of prefecture owned forests.

Tokugawa Koichi

Structure of Forestry Agency



PROJECT FOR THE SUPPORT FOR JOINT FOREST MANAGEMENT IN THE KYRGYZ REPUBLIC

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Address: 142 Gorkaya str. Bishkek, 720001

Tel: +996(312)479092, Fax: +996(312)561817

Web-site: jicajfm.aknet.kg : e-mail: info.jicajfm@aknet.kg