

REMSOFT IN CHINA

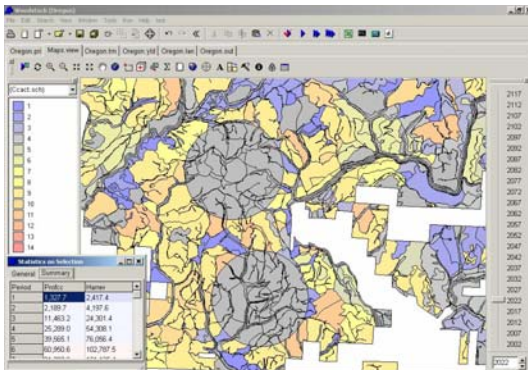
New forest management standards in China embrace more than just timber value

Remsoft software helps planners incorporate biodiversity, water, habitat and the environment in plans.

Over-utilization of China's forests dating back more than a century has decimated much of China's rich and diverse natural forests, and today the resource has been converted to mostly low-quality secondary forests, plantations, young forests, shrubs and agricultural lands.

This deforestation has meant serious biodiversity loss, soil erosion, frequent flooding, decrease of natural forest area, a shortage of forest products and increased reliance on imported wood products.

Major reforestation efforts have been underway since the 1980s and efforts to halt the demise of natural forests, improve secondary forests and build a sustainable forest industry were stepped up since the 1990s, especially 1998 after a major flood of the Yangtze River devastated surrounding areas. At that time, the wheels set in motion to establish new forest management standards to ensure the sustainable, long-term management of the country's emerging forests.



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Conservation and improved management

Chinese researchers have been working to develop new forest management standards that will incorporate non-timber values, such as biodiversity, headwater conservation, animal habitat, carbon assimilation and other factors along with timber values in long-term forest management strategy.

The forest ecology and management group, a research arm with the Chinese Academy of Forestry, a national government agency, has been working on developing the new standards since 2001, focusing his research on integrated management in the western Chinese province of Sichuan which is part of the South-West Forest Region – China's second biggest forestry region.

“Forest restoration and regeneration are highlighted in these regions today and there is agreement that it is necessary to pay more attention to other values of the forest, other than timber value,” says Dr. Zhang Yuandong (the central member of the group), explaining the general consensus surrounding forestry in China today.

“At the same time, we need to put into practice new forest management standards that will support sustaining forest management over the long-term. This is not simple: there are many decisions to make.”

The forest management standards that the Chinese researchers are seeking to develop will be among the most complex anywhere.

For instance, in the area where Dr. Zhang works management plans must account for not only the biodiversity, long-term timber production, carbon assimilation et cetera, but also for forest succession – whether natural or artificial, plantation or natural forests and forest types.

Some of these forests will be transitioned to other types to suit the topography and domestic needs and new management practices established according to region.

Dr. Zhang is using the Remsoft Spatial Planning System to develop the new integrated management standards and to communicate the standards to local and national authorities and others.

He adopted the software after researching what was used in forest management elsewhere around the world and has found that the Remsoft System suits Chinese planning problems because it can incorporate all the diverse criteria he needs included in his plans plus map those plans to show where management activities will take place and show their impact over a 200-year planning horizon.

The ability to see where management activities are taking place is particularly important as researchers try to balance China's current and future need for wood fibre.

"In our planning, thinning is a very important practice and the main source to get the timber," he explains. "With the Remsoft Spatial Planning System, we could get the spatial location of optimized thinning in 200 years."

Dr. Zhang demonstrates the impact of proposed management standards to State Forestry Administration as well as to other stakeholders to promote public participation in the creation of these standards.

"We can communicate well the need for the new standards and be accountable for our choices," Dr Zhang says.

He said the system has been particularly suitable for China's emerging forest planning needs because it is easy to add actions/transitions and more to the Woodstock model – data that might have to be ignored using other planning tools even though they have a strong impact on long-term wood supply and more.

The result is models and plans that are more realistic.

More data for more robust models

The inclusion of new data figures prominently as Dr. Zhang moves forward with his work in developing China's new forest management standards:

Among criteria to be incorporated into the models are more detail on key natural processes (such as natural secondary succession and gene variation of dominant species in landscape level) and more carbon assimilation data.

Explains Dr Zhang: "China still hasn't the obligation to reduce Carbon Dioxide emissions till 2012, however, there is no question that China will face more and more pressure in future and of course it is important to start carbon counting now."

