

Environ un tiers des terres tropicales est déclaré par la FAO en situation de déficit en bois de combustion actuelle ou à venir. L'exploitation du tabac dans les pays tropicaux en voie de développement est en grande partie effectuée dans des régions ayant un déficit en bois, de telle sorte que toute consommation de bois aura un certain impact sur le déboisement.

La consommation du bois de combustion pour le séchage du tabac ne représente que 0,7% de la totalité du bois brûlé dans les pays tropicaux en voie de développement producteurs de tabac; quoi qu'il en soit, cette consommation doit être considérée. Néanmoins, tous les consommateurs doivent à court terme considérer les moyens d'économiser ce combustible. A long terme, il est au moins techniquement possible de répondre aux besoins futurs des exploitations gérées. De toute manière, il peut y avoir des problèmes d'ordre politique et économique à résoudre avant qu'une telle solution puisse être mise en œuvre.

Il est beaucoup plus efficace d'exploiter une plantation que de compter sur les ressources naturelles de la forêt pour assurer la fourniture du bois de combustion. Si les cultivateurs de tabac font pousser des arbres afin de répondre à leurs besoins en combustibles, ils créeront un équilibre entre la production et la consommation de CO₂. Les compagnies de tabac peuvent influencer les cultivateurs qui leur vendent leurs récoltes, afin que ceux-ci aient pour but d'assurer leur propre auto-suffisance.

MADERA, TABACO Y EL MEDIO AMBIENTE

Cerca de un tercio de la masa de terreno tropical está clasificada por la FAO como en situación presunta o actual de déficit de leña. Una proporción considerable del tabaco que se cultiva en países tropicales en vías de desarrollo ocurre en zonas con un déficit forestal, de manera que cualquier consumo de madera tendría un impacto en la despoblación forestal.

El consumo de leña para la curación de tabaco, debe, no obstante, ponerse en perspectiva, ya que solamente representa el 0,7% de toda la leña que se consume en los países tropicales en vías de desarrollo que cultivan tabaco. Con todo, todos los usuarios deben considerar maneras de economizar en el uso de leña en el futuro próximo. A plazo más largo es por lo menos técnicamente posible cumplir los futuros requisitos de las plantaciones que son administradas. Puede haber, sin embargo, problemas políticos y económicos que habrá que solucionar antes de que tales medidas puedan aplicarse.

Las plantaciones son una manera mucho más eficiente de cultivar árboles que confiarse de los bosques naturales. Si los cultivadores de tabaco cultivan árboles para satisfacer sus necesidades de leña, crearán un equilibrio entre la producción y el consumo de CO₂. Las compañías de tabaco que compran materia prima a pequeños agricultores tienen la oportunidad de influenciar la práctica para que estos granjeros lleguen a ser autosuficientes.

LENHA, TABACO E AMBIENTE

Cerca de um terço das terras tropicais são classificadas pela FAO como estando numa situação de provável ou verdadeira falta de madeira para lenha. Uma proporção substancial do tabaco cultivado nos países tropicais em desenvolvimento cresce nas áreas com déficit de lenha, e portanto qualquer consumo de lenha terá um certo impacto sobre o desflorestamento.

O consumo de lenha para a cura do tabaco deve ser mantido em perspectiva, contudo, porque ele é responsável apenas por 0,7% de toda a lenha consumida nos países tropicais em desenvolvimento, onde cultiva-se o tabaco. Contudo, todos os utilizadores devem considerar formas a curto prazo de economizar lenha. A longo prazo é pelo menos tecnicamente possível atender as necessidades futuras nas plantações controladas. Contudo, pode haver problemas económicos e políticos a serem suplantados antes que as referidas soluções possam ser aplicadas.

As plantações são uma forma mais eficiente de obter-se madeira para lenha do que recorrer à floresta natural. Se os cultivadores de tabaco cultivarem árvores para consumir como lenha, eles criarão um equilíbrio entre a produção de CO₂ e o consumo. As companhias de tabaco que adquirem a sua matéria prima de pequenos fazendeiros têm a oportunidade de influenciar a prática dos mesmos em direção à auto-suficiência.

WOOD, TOBACCO AND THE ENVIRONMENT

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Deforestation in the tropics has been causing increasing concern in recent years as the role of forests in soil conservation and absorption of carbon dioxide is recognised by a larger section of the population. Many causes of deforestation are cited, including commercial timber logging, clearance for agriculture, both planned and illegal, and cutting of fuelwood. Each of these causes applies to varying degrees in different places, according to population density, consequent land pressure and availability of alternative resources.

About one third of the tropical land mass is classed by FAO as being in a prospective or actual woodfuel deficit situation. In such areas where demand for fuelwood exceeds the current growth of the forest, the only way the supply can be met in the short term is by depletion of the resource. The rate of depletion will inevitably accelerate as the capital stock is consumed, and this must give great cause for concern.

A substantial proportion of the tobacco growing in tropical developing countries takes place in wood deficit areas, so that any wood consumption will have some impact on deforestation. Tobacco growing and processing requires wood or wood products for a surprisingly large number of uses, though not many involve large quantities of wood.

IMPROVING WOODFUEL USE EFFICIENCY

The study by IFSC (1986) indicated that manufactured tobacco products from tropical developing countries and China use an average of about 3m³ wood per tonne of product. More than two thirds of this is burnt as fuel, mainly in tobacco curing, and a major part of the remainder is used as tobacco products, especially paper and packaging.

It is the use of woodfuel in tobacco-curing, which causes the greatest concern from an environmental point of view, because much of it is needed in areas which now have a wood deficit, and much is collected in an uncontrolled manner by thousands of small farmers from natural forest already under extreme pressure for domestic fuelwood supply. However, the fuelwood consumption for tobacco curing must be kept in perspective as it only accounts for 0.7% of all fuelwood consumed in the tobacco-growing tropical developing countries, and is thus a very small contributor to any overall problem.

Despite the low fuelwood consumption for tobacco curing relative to other uses, the fuelwood supply situation and the rate of deforestation in some countries is cause for great concern, and all users must consider ways of economising on fuel use in the short-term. In the longer-term it is at least technically possible to meet future needs from managed plantations, but there may be political and

economic problems to be overcome before such solutions can be applied.

Another element of the ISFC (1986) study examined the efficiency of wood use in flue-curing, and defined the SFC (Specific Fuel Consumption) as the weight of wood required to cure one kilogram of dry tobacco. The study found an overall value among seven countries of 7.8Kg/Kg for flue-curing and 3.3Kg/Kg for fire curing. However, the former ranged between 4.8 and 12.9Kg/Kg for national averages, and between 2.5 and 40Kg/Kg among individual farms. Some theoretical calculations suggest that 2.5Kg/Kg is coming close to the minimum achievable in practice, and would be in line with the more efficient coal-fired curing barns used in Zimbabwe and elsewhere.

There is therefore very considerable scope for improving woodfuel-use efficiency and reducing overall consumption. Halving woodfuel use within 6-10 years would seem to be an achievable target if current knowledge on barn and boiler design were widely applied. Although improvements in barn design and operation may require investment, the savings in fuel costs at current prices, where shortages already exist, will give a good return in many cases. Where fuelwood is already in short supply, prices can be expected to rise at an accelerating rate in the not too distant future, so that investment in fuel efficiency should be increasingly attractive.

SUSTAINED MANAGEMENT

Wood is frequently referred to as a renewable resource, but this is only true if the forest is allowed to regenerate naturally or is assisted in regenerating itself by management. This entails protection against fire, animals and encroachment, retention of seed sources or planting of seedlings, and tending during early life until the trees are well established. In the absence of interference from man this will happen naturally very slowly, but the heavy pressure on the forest for fuel and animal forage means that the natural processes are disrupted and the forests tend to degrade.

Plantations of trees are a much more efficient way of growing fuel than relying on natural forest. Just as world rubber demand can be met from a relatively small area of intensively managed plantations, so with fuelwood can high-yielding plantations on selected sites substitute for large areas of low productivity natural scrub forest.

It is to be hoped that tobacco farmers will put an increasing effort into establishing plantations to meet their future fuelwood needs. Once a sufficient area is established the subsequent management and regeneration is relatively low cost, and it should be possible to ensure supplies in perpetuity. This will effectively insulate the tobacco farmer from fluctuations

in energy prices brought about by external factors such as war in oil-producing areas, and enable him to control production costs more closely.

The burning of fossil fuels or wood for tobacco curing will release some carbon dioxide into the atmosphere, contributing to greenhouse gases and the possible consequences of atmospheric warming. However, growing trees fix carbon dioxide, and can therefore compensate for the combustion by reabsorbing CO₂. Therefore if tobacco farmers grow wood to meet their fuel needs, they will create a balance between CO₂ production and consumption, and thereby avoid the environmental consequences. So long as the wood supply comes from the depletion of the growing capital, there is a net increase in CO₂ in the atmosphere.

Some tobacco companies are now monitoring the progress of their growers towards self-sufficiency in fuel. This will be achieved by simultaneously reducing demand by more efficient burning of the fuel in the barns, and increasing supply by the establishment of plantations. Early indications are that improvements will only be achieved if considerable attention is paid to the sustained management of tree crops; the effort and expense of planting trees can easily be lost if tending is neglected.

THE GOAL OF SELF-SUFFICIENCY

In some countries, problems of land availability will have to be examined as farmers with small land holdings will have difficulty in providing enough land for trees, and the opportunity cost of the land may be high, especially where double cropping is practised. In these circumstances, it may be necessary to grow the wood as a separate venture away from the tobacco. This could offer advantages in site selection, choice of tree species, economies of scale in management, and opportunities for outside entrepreneurs to be involved. It may also entail negotiating with governments for use of state-owned forest land, with adequate security of tenure. Where state forests have become degraded, such an arrangement could be attractive.

Tobacco companies which purchase their raw material from small farmers have the opportunity to influence the practice of farmers both through their purchasing policy and their extension services. More attention should be paid to energy needs, especially in those countries where wood is the major or only practicable fuel available. Professional foresters should be employed where possible to ensure that afforestation schemes are properly planned and managed and the results of the growing body of research are continuously applied.

The goal of self-sufficiency in fuel, when achieved, would bring both financial benefits through better control of production costs, and environmental benefits through the reversal of deforestation trends and balance of the CO₂ outputs and inputs.