

Report of the International Meeting on Social, Economic and Health Issues in Tobacco Control

A. Purpose and participants

Despite the health impact associated with tobacco use, strong action to control smoking - such as higher taxes, comprehensive bans on advertising and promotion, or restrictions on smoking in public places - has often not been taken because of concerns that such interventions might have harmful economic consequences. In its 1999 report *Curbing the Epidemic, Governments and the Economics of Tobacco Control*, The World Bank examined the economic questions that policy makers must address when contemplating tobacco control. The report demonstrates that the economic fears that have deterred policymakers from taking action are largely unfounded. Policies that reduce the demand for tobacco, such as a decision to increase tobacco taxes, would not cause long-term job losses in the vast majority of countries, nor would higher tobacco taxes reduce tax revenues; rather, revenues would climb in the medium term. Such policies could, in sum, bring unprecedented health benefits without harming economies. However with respect to the countries whose economies are dependent on tobacco production, while reductions in domestic demand would have little impact, a global fall in demand could result in job losses. Policies to aid adjustment in such circumstances would be very helpful.

With this scenario in mind, the TFI- Tobacco Free Initiative- of the WHO started to address the multisectoral and international perspective of tobacco control policy through the establishment of the UN Interagency Taskforce¹. After research was conducted by these agencies in their various areas of concern, the need for a meeting addressing issues related to the impact of tobacco control policies on the different sectors of the economy was clear.

The international meeting on economic, social and health issues in tobacco control, organized by WHO and hosted by the WHO Center for Health and Development (WHO Kobe Center: WKC), was held in Kobe, Japan (3-4 December 2001). The meeting aimed to:

- Explore the employment implications of tobacco control in the agriculture sector. Specific emphasis was given to alternative livelihoods for tobacco farmers and workers in the bidi industry in India, including a review of alternative crop opportunities and infrastructure necessary to move to alternative crops or alternative economic livelihoods;
- Explore the employment implications of tobacco control in the manufacturing sector including a review of the size and significance of the tobacco industrial sector in the overall economy; and the likely net impact on employment if demand for tobacco products were to fall;
- Examine issues related to illegal trade in tobacco products and its indirect effect on human health;
- Explore guidelines for privatization and the economic and health impacts of privatization of tobacco companies;

- Update the research agenda developed by Research for International Tobacco Control (RITC) and the World Health Organization in July 1999.

The meeting provided a review by international experts of the ongoing United Nations work in the area of international tobacco control, including work by FAO, ILO, The World Bank and WHO. The meeting gathered international technical experts coming from 24 different countries².

B. Agenda

Monday 3 December

Opening Session: Introduction and welcome by

- Dr Yuji Kawaguchi, Director, WHO Kobe Center
- Dr Yuhei Hosokawa, Director in charge of Public Health Promotion, Policy Coordination Bureau, Lifestyle and Welfare Department, Hyogo Prefecture, Government of Japan
- Dr Vera da Costa e Silva, Project Manager, WHO/TFI

Session 1: Burden of disease and effective tobacco control interventions

This session summarized the burden of disease worldwide and reviewed the various effective tobacco control interventions that need to be taken into account in order to reduce tobacco consumption. Also, the objectives of the meeting were highlighted.

1.1 Current and future tobacco burden of disease (Vera da Costa e Silva, WHO)

Along with HIV, cigarette smoking is the largest growing cause of death in the world. Estimates show that 4 million deaths per year were caused by tobacco in 2000; this figure is expected to rise to about 8.4 million in 2020. The spectacular rise and spread of tobacco consumption around the world presents a challenge for governments and international organizations, and specifically the World Health Organization. Governments can intervene by implementing effective measures. Evidence from many countries shows that those measures exist and are highly cost-effective. Higher taxes on cigarettes and other tobacco products are probably the single most effective measure, especially to encourage young people and those with limited incomes to reduce their use of tobacco products. There are other effective (non-price) measures, such as smoking restrictions, advertising and sponsorship bans, anti-smuggling measures, treatment for tobacco dependence (e.g. therapies like nicotine replacement), information and advocacy.

Besides the national approach (legislation and economic policies, surveillance, media and advocacy, health systems...), an international tool is necessary; the Framework Convention on Tobacco Control (FCTC) is an international legal instrument that will circumscribe the global spread of tobacco and tobacco products. The FCTC addresses issues as diverse as tobacco advertising and promotion, agricultural diversification, smuggling, taxes and subsidies.

The presenter also spoke about the myths present in policy makers' minds that prevent them from taking effective actions in tobacco control. One of these myths is the mistaken idea that a rise in prices will generate a loss in government revenues or that the implementation of tobacco control policies will generate massive job losses. Evidence shows that the facts are quite different. For example, it has been proved in many countries that an increase in taxes will increase government revenues. Also if tobacco product consumption decreases causing a loss of employment in the tobacco sector, this will be offset by new jobs created in other sectors, as people switch their expenditure patterns away from tobacco products and buy other goods and services instead. Furthermore, rising population numbers and income tends to increase tobacco product consumption, and so any falls in total consumption tend to be small and gradual, allowing most economies time to adjust. It is therefore unlikely that significant numbers of tobacco-related jobs will be lost in the coming years, rather, it is likely that fewer new ones will be created.

Finally, the speaker presented the expected outcomes of the meeting: updating the research agenda, assisting in the development of programs that consider the supply side implications of tobacco control, provide a review by international experts on the ongoing United Nations work in the area of international tobacco control. The output of the conference will be reported in the Secretary General's report to the Substantive Session of ECOSOC (July 2002) of the United Nations Ad Hoc Interagency Task Force on Tobacco Control.

1.2 Effective demand-side interventions to reduce tobacco use (Joy de Beyer, WB)

The presenter discussed demand-side interventions to reduce tobacco use. She outlined price and non-price measures which are effective for tobacco control. Among those measures, we find tax increases (in the case of South Africa, for example, evidence shows that price increases decreased consumption; between 1993 and 1999, cigarette real prices increased by 84.8 per cent and cigarette consumption decreased by 22 per cent), advertising bans (a survey done in 102 countries shows that advertising bans do decrease cigarette consumption), bans on smoking in public places or helping smokers who want to quit. On the other hand, most supply-side measures are not effective at reducing tobacco use (prohibition, youth access restrictions, trade restrictions, crop substitution) except for the control of smuggling. Smuggling often is said to be the consequence of an increase in prices or price differentials. However, evidence shows that price is not the only reason for smuggling – there are many relatively high price countries with negligible smuggling and very low price countries with a lot of smuggling. Moreover, the evidence clearly shows that the overall level of corruption in a country is at least as important in explaining the level of tobacco smuggling as the relative price or tax level. Organized crime plays an important role in smuggling and the best way to resolve smuggling is by tackling this crime and clamping down on smuggling. Countries should not forego the revenue and public health gains that higher tobacco taxes could bring, because of concerns about smuggling.

Policy makers worry that tobacco control will harm the economy since tobacco generates tax revenues, provides employment, might attract foreign private investment and sometimes generates export earnings. But facts and evidence show that tobacco control measures do not reduce tax revenues, do not necessarily increase smuggling (which

depends on several determinants such as the level of corruption) and do not necessarily cause job losses (former smokers will spend their money on other goods and services diverting money to other sectors creating new jobs and new income opportunities). Moreover, many countries are net importers of tobacco and tobacco products. In order to successfully implement tobacco control measures, it is important to identify the key stakeholders, the issues that concern them and address their concerns. It is also important to address each country's unique characteristics. The change in tobacco consumption is very slow so the global tobacco market will not "wither away".

Comments and discussion:

Some participants noted that opportunities exist for tobacco control; in the area of youth and tobacco, a lot of work has to be done for educational programs in schools regarding health consequences of tobacco use. Another area of concern discussed was harm reduction: there is little evidence that mandating lower levels of tar and nicotine necessarily reduces the harm from tobacco use, because compliance may be poor, and because the cigarettes may be carefully engineered so that they deliver just as high doses of nicotine and tar to smokers as before. Also, in the area of agriculture, more studies are needed to counteract false arguments used by the tobacco industries aiming at weakening tobacco control policies.

Participants discussed price measures and demand reduction thoroughly. In middle and low income countries, many studies show that there is a high price elasticity of demand and a stronger reduction in consumption when real prices increase, thus, price measures in those countries can be very effective. Price increases are also an especially strong deterrent for young people who smoke or wish to smoke. Many studies, specifically in the United States, show that, even US teenagers who have a lot of money in their pocket are very price sensitive. However, price measures do not affect the people who do not buy the cigarettes they smoke (children who take them from their parents, farmers who smoke home-produced cigarettes...). In this case, information and advocacy and advertising bans are the most effective measures. Interventions from political leaders, community leaders or religious leaders can be very helpful in the process of changing the attitudes of people.

Concerns were also addressed regarding health care costs. Studies show clearly that smokers incur higher healthcare costs per year than non-smokers. However, because smokers die younger, lifetime healthcare costs of smokers and non-smokers tend to be fairly similar. So in the long run and over a lifetime, it is not clear whether smokers cost less for governments. However, demonstrating the higher annual health care costs for smokers may help encourage policy-makers to support anti-smoking campaigns. Of course, the benefits of good health and longer, healthier lives are the strongest argument of all for reducing tobacco use. It should be noted also, that illness and the cost of health care is an important factor that causes or worsens poverty, adding to the importance of effective anti-smoking interventions.

In terms of the UN Task force and the FCTC, a participant stated that not only ministries of health but also ministries of agriculture, industry and finance must be encouraged to work together to examine the topics of economics of tobacco control.

Session 2: Supply-side implications from effective tobacco-control interventions

During this session, FAO's work in the area of international tobacco control was presented. Three studies were summarized. First, projections for tobacco production, consumption and trade for the year 2010 were summarized. Second, an overview was given of country-case studies in five countries (China, India, Malawi, Turkey and Zimbabwe), examining the economics of tobacco in each of those countries. And finally, a computerized general equilibrium model of 4 countries (China, Malawi, Turkey and Zimbabwe) aiming at looking at the consequences for the economy of a dramatic hypothetical global drop in tobacco demand was presented.

2.1 An overview of FAO tobacco work: Objectives and progress (Brian Moir, FAO)

The presenter gave an overview of the work FAO has been doing on tobacco. This work was launched in March 2000 and is not yet finalized, it is expected to be completed during 2002. The objective of the project is to analyse the economic impact that may result if tobacco consumption falls. Economic growth, GDP, employment, both in agricultural and non-agricultural industries, household income, government revenue and food security are among the issues considered. First, a complete review of existing literature relevant to the subject was done as a foundation of the work and to avoid repetition. Secondly, a set of projections were made on tobacco production, consumption and trade for the year 2010. Thirdly, country case studies were done for five countries: China, India, Malawi, Turkey and Zimbabwe and a study on Brazil is still under way. Finally, computerized general equilibrium models of 4 countries (China, Malawi, Turkey and Zimbabwe) were prepared to get a handle on the consequences across the whole economy of a hypothetical large global drop in demand. A summary report will be written drawing together the results of each of these three parts of the work and also reflecting the discussions and ideas that emerged at this meeting.

2.2 Tobacco leaf projections to 2010 (George Mergos, University of Athens)

This study reviews the trends and determinants of tobacco leaf production, demand and trade and cigarette production in the 1970-2000 period. It then provides projections of those trends through 2010.

Regarding the observed trends, the production of tobacco leaves increased in developing countries and has declined in developed countries. Production has shifted to developing countries. Tobacco production returns and tobacco profitability in most developing countries has been higher than most other cash crops and so long as this continues to be the case, increasing production is likely.

Evidence shows that the global demand in tobacco has increased rapidly through most of the period reviewed. In developed countries, there is a declining trend while in the developing countries there is an increasing trend. The increase in consumption in developing countries is mainly due to high population and income growth. Cigarette production in developing countries is surpassing the production level of developed countries. With regard to tobacco trade, it was in the past mostly in the form of tobacco leaf, but more recently, trade in cigarettes has increased rapidly. More activity in

cigarette manufacturing should be expected in developing countries and that will result in a more stable trade volume in both leaf and cigarette.

Regarding the 2010 projections, global production of tobacco leaf is expected to expand about 3 per cent compared to the record production level of 1997. In developed countries, leaf production is projected to continue declining and is expected to be about 8 per cent lower than its level in 2000. In developing countries, it is expected to increase by about 20 per cent compared to its level in 2000. These trends show clearly that there will be a shift in leaf production from the developed to the developing countries. On the other hand, demand is expected to increase but it reflects two different tendencies. In developed countries demand for tobacco products is expected to be in 2010 about 6 per cent lower than in 1998. The demand in developing countries is projected at an annual growth rate of 3.2 per cent between 1998-2010, based on earlier trends, and population and income projections. The trade volume of tobacco leaf is projected to increase by about 1.5 per cent per year over the period 1998-2010. In the developed countries tobacco leaf imports will increase considerably while tobacco leaf exports will decrease. The inverse is expected in the developing countries. The projections also suggest that there may be a slightly higher increase in the overall world import requirements than in export availability. This implies that world demand is outpacing supply. Public policy that aims to reduce tobacco use should focus on curtailing demand rather than on reducing supply.

Comments and discussion:

The presenter noted that the projections used data for a very large number of countries (168 countries). For simplification purposes and to make sure results are more robust, the model was run with many countries grouped together. In further research, the major countries which have very different trends from the rest should be separated, this was done for China for example but it could be extended to other countries as well.

Regarding the data, the presenter pointed out that consumption was calculated from a supply utilization account so the work was done on apparent consumption and not actual consumption which could lead to inconsistent conclusions, for example the Chinese data which shows a decrease of tobacco leaf consumption by 30% in 1998, but this does not mean that cigarette consumption decreased.

A participant pointed out that China will soon open its market to the rest of the world with its entry in WTO. This fact might have strong impacts on global trade and could change some results in the projections study which did not consider this issue in its models (for example a decrease in prices and a higher increase in tobacco production and consumption).

2.3 Country case studies

2.3.1 China (Shangnan Shui, FAO)

This study makes an overview of the tobacco sector in China. China is the largest cigarette producing and consuming country in the world (it produces more than 30% of world cigarette production). The central government controls tobacco production and

this activity contributes a lot to its revenue. The demand for cigarettes essentially determines the use of tobacco leaves. Production of tobacco has been increasing in the past three decades and there has been an expansion of the planting areas. Tobacco is not the most profitable crop in China but farmers plant it because there is no market risk: the only buyer is the government and it guarantees them the price, and because they are assigned quotas to fill.

Tobacco control may increase income risk for tobacco growers in some regions but not for growers who live near urban areas, for whom tobacco accounts for much smaller proportions of total household income and with opportunities for off-farm employment. Regarding employment, tobacco is the most labor intensive crop in China, but since it is a one season crop only, there will not be a significant loss of labor use by shifting away from tobacco to other crops. Regarding government revenues, if tobacco control policies increase tobacco taxes, the revenue effect would depend on whether or the extent to which smokers switch to “lower quality”³ cigarettes as a result of an increase in the prices of cigarettes, and the relative taxes on different grades of tobacco and cigarettes.

China was not an open economy in the past and trade in tobacco leaves has been negligible during the past few decades. The effect of its recent admission to WTO on the Chinese tobacco industry will depend on the relative price of imported cigarettes and the extent to which foreign producers and importers are allowed to advertise and promote their brands.

2.3.2 India (Sat Pal Malhotra, Consultant, India)

The study reviews the status of the tobacco sector in India, and attempts to identify the major economic and social factors affecting tobacco production and consumption.

India is the world’s third largest producer of leaf tobacco. Production of bidi accounts for over 50% of total tobacco use compared with less than 20% for cigarettes, and bidi account for about 40% of tobacco consumption. (Bidis are smaller than regular cigarettes, and are made from tobacco which is hand-rolled in a tendu leaf and tied with string.) Cigarette smoking is essentially an urban phenomenon. Bidi manufacturing is estimated to provide employment to more than 5 million workers (full-time and part-time), a large number of whom are women and children. Tobacco in India often yields higher net returns per unit of land than (most) other cash and food crops (however research in Karnataka found a more mixed picture, with several other crops providing a higher net return than tobacco). Therefore, if tobacco farmers have to switch to other cash crops without a change in relative returns, they could suffer an economic disadvantage. However, some studies revealed that mixed cropping was more profitable than exclusively tobacco cropping. Such inter-cropping systems may be the first step to moving away from tobacco.

The Indian market for cigarettes and other tobacco products is highly price sensitive. But, regarding taxation, the motivating rationale for the government seems to be more fiscal than to control tobacco. For ease of tax administration, the narrow cigarette sector is taxed at increasingly higher rate to meet revenue need, while as much as four-fifth of tobacco consumption, including bidis, is either lightly or not taxed. If the objective is to discourage tobacco consumption, the existing tax base and rate structure is not in

alignment with the production and consumption patterns. Government intervention for the support of the industry covers aspects like institutional and regulatory support, price and market support, export promotion, research and development and direct fertilizer and credit subsidies. The paper gives a broader explanation of government interventions in the production of the Virginia tobacco type.

As for trade, tobacco exports are dominated by unmanufactured leaf. Exports of tobacco, along with other agricultural exports, receive different types of incentives. For example, exports income are exempt from income taxation. Also, credit at subsidized interest rate is available for tobacco exports. The country imports small quantities of unmanufactured tobacco required for blending purposes for manufacturing international brand cigarettes in the country.

2.3.3 Turkey (Erol Cakmak, Middle East Technical University)

This study gives an overview of the economics of tobacco in Turkey. Turkey's tobacco production constitutes 4% of world production, placing the country fifth in ranking. It produces mainly oriental tobacco (65% of the world oriental tobacco production). Production of Virginia and Burley amount to little more than 3% of total tobacco production in Turkey. Tobacco area is about 1.5% of the total cultivated area. Being one of the most labor intensive agricultural activities, tobacco production is an important source of employment. Tobacco production in Turkey is possible on only specified areas and subject to quota permits. TEKEL is the leading public tobacco industry. The share of public firms in tobacco processing firms is 78%. Public sector employment in tobacco and cigarette manufacturing is much bigger than the private sector. The activities of TEKEL account for around 3% of Turkey's GNP. Because of TEKEL's large market share and ties to government, it acts as a price leader in the industry. Producers, at last resort, can sell their tobacco to TEKEL. Alternative crops to tobacco growing exist but have been less profitable (given that the government, rather than the market, has determined tobacco prices) and thus would require similar substantial subsidies and income support measures to induce farmers to switch – unless tobacco subsidies and support were phased out.

Regarding taxation, both domestic and imported cigarettes are taxed. Domestic tobacco cigarettes are subject to various ad valorem and specific taxes, and in 2000, comprised 78% of the retail price. Cigarettes from non-EU countries are subject to a 25% import duty, while the import duty on cigarettes from the EU was reduced to zero under the Customs Union Agreement with the EU in 1996.

Cigarette consumption per adult (aged 15 years of older) increased 66% from 81 packs/adult in 1960 to 135 packs/adult in 2000. In a 1996 survey, 56% of smokers in Turkey said they started smoking at 12 years of age or younger

Regarding trade, Turkey has a 6-8 % share of total world exports (mainly unprocessed tobacco) and 2% of total world imports. The USA is Turkey's largest trading partner for exports followed by EU countries.

In terms of tobacco control policies, the Turkish government could increase prices and import duties of cigarettes without negatively affecting the economy. On the other hand,

it is paving the way for the privatisation of TEKEL. This could will lead to major changes in the tobacco sector.

2.3.4 Malawi (Shangnan Shui, FAO)

This study aims to identify the relationship between tobacco production and the economy in Malawi. Malawi has a predominantly agricultural economy. More than 75% of the total population live in the rural areas. Agriculture is the single largest sector in the national economy (38% of GDP). Tobacco is the largest cash crop grown, and all tobacco leaf is produced for export. Malawi is one of the ten largest tobacco producers in the world. In early 1995 Malawi made structural reforms liberalizing the economy (including the tobacco sector, which had been tightly controlled by the government) and allowed many small scale farmers to grow tobacco, spreading tobacco income beyond the large-scale estate sector. Despite this, estates still dominate production (68% of the total sales). Tobacco production is estimated to contribute 6% of total GDP and 17% of agricultural GDP. But lately, there has been over expansion of tobacco production, and leaf quality has declined and tobacco export prices have fallen. Tobacco production is heavily dependent on manual labor and employs 20% of the total labor force in the country.

The domestic smoking rate is low and all cigarettes consumed are imported.

Regarding trade, Malawi is the fifth largest exporter of unmanufactured tobacco in the world (6% of global tobacco exports). Exports of agricultural commodities are virtually the only source of export earnings and foreign exchange for Malawi's economy. In 1999, tobacco was by far the largest single export commodity accounting for 61% of total export revenue. Since 1998 no export levy or tax has been imposed on tobacco. The major revenue the government collected from tobacco exports was from a tax on tobacco exporters' profits. The government revenue from the tax accounts for over 20% of total national tax revenue. Malawi's exports are price-competitive and a potential reduction in world tobacco prices would probably not affect its competitiveness.

2.3.5 Zimbabwe (Shangnan Shui, FAO)

Zimbabwe has traditionally been one of the major tobacco exporters in the world. Tobacco accounted for more than 55% of the country's total agricultural exports in 1998. Increases in both planting areas and yields have contributed to a significant increase in output of tobacco over the past decades. Among other export crops, cotton and maize experienced significant export growth.

Two types of farmers grow tobacco:

- Large-scale farmers dominate tobacco production. There are fewer than 2,000 commercial tobacco growers and they account for 87% of area planted and 95% of the total crop. Although tobacco is still the backbone of commercial agriculture, other important crops for large-scale farmers (wheat, soybeans, maize...) are typically grown in rotation with tobacco.

- Small-scale farmers are loosely defined as indigenous commercial farms. Small-holder farmers are marginally involved in the tobacco sector.

Although there are roughly eight times as many small-holder tobacco growers as commercial farmers, these account for less than 1.5% of all small-holder households.

Three main types of tobacco are grown in Zimbabwe: flue-cured, burley and oriental tobacco.

Zimbabwe is the largest tobacco leaf producer in Africa and the world's fourth largest producer of flue-cured tobacco. Most--98%-- of all tobacco production is exported. Tobacco production makes an important contribution to GDP; total export revenue accounts for nearly 10 per cent of GDP. Although other cash crops including cotton and maize are more important for most communal and resettlement farmers, tobacco is still important and offers small-holder growers a unique opportunity for exceptionally high producer profits and excellent gross rates of return. Tobacco incomes accounted for around 25% and 40% of total income for large farmers and small-holders, respectively. Also, tobacco production generates considerable rural employment. Full-time employment, directly or indirectly, would be roughly equal to 5% of Zimbabwe's total labor force and perhaps 25% of formal employment. Regarding taxation, tax rates have been reduced each year since 1999 to encourage production. Still, tobacco is an important source of government revenue. A reduction in global tobacco demand would probably result in decreased tobacco exports and a decline in GDP. But, even though tobacco has an important role in the economy, at both the national and sector level, the Zimbabwe economy and agriculture are relatively diversified. A diverse agricultural structure and the commercial nature of large tobacco farms would allow Zimbabwe to reduce its dependency on tobacco relatively easily. Various types of technical and financial assistance to small tobacco growers could enable them to shift away from tobacco to other crops in the long run without major reduction of income.

Comments and discussion:

Questions were raised regarding the Turkey and China studies which report decreased tobacco production in the last few years. It was replied that this decrease could be explained by the excess stock of low quality leaves that the state government had bought, leading them to set much lower quotas in the following years.

Some participants noted that the Malawi and Zimbabwe studies suggested that if global demand fell, farmers would be able to shift to alternative crops in the long run. However, the adjustment process might not be easy. For example, in Malawi, small scale farmers would not easily be able to shift from tobacco to alternative crops such as tea and sugar, which are highly specialized and may require large investments and infrastructure. Some other alternatives need to be found for them. In the case of Zimbabwe, it should be taken into account that many profitable crops have been established using revenues from tobacco for initial investments; tobacco helps in the process of diversification.

The India study raised the question why virtually all of the discussion about the impact of government policies on tobacco production focuses on Virginia tobacco, whereas it accounts for only 24% of total tobacco production. One can understand the logic of covering the Virginia type of tobacco, given that the Tobacco Board has put in place an array of regulations dealing with marketing, pricing, and export of Virginia tobacco, but

it is not clear why there is no discussion about the effects of government policies on the production of the other types of tobacco (comprising 76% of the total).

It was also pointed out that the study on India uses an array of data to try to gauge some direct effects of farmers shifting from tobacco to crops which give the 'next best return' in different locations. It examines the effects on income and labor requirements and makes a link to potential changes in consumption patterns as a result of the income changes. This provides some interesting hypothetical results, especially the seemingly adverse effect on the demand for hired labor. One would have liked to see the same type of analysis done based on an assumption that farmers would move from tobacco to a mix of tobacco and other inter-crops (given the demonstrated high returns of such a cropping pattern) rather than the full replacement of tobacco with the 'next best' crop. The drop in (hired) labor requirements would presumably be much less significant. This issue was mentioned in the Indian paper but not developed.

2.4 CGE studies (Xinshen Diao, IFPRI)

This study reports the results of comparative static experiments in which the model is "shocked" by changing some exogenous variables in a specific economy and then the changed equilibrium solution is computed. The General Equilibrium analysis of tobacco is made for four developing countries: China, Turkey, Malawi and Zimbabwe. The simulation focuses on the possible reduction of tobacco production and exports as well as the impact on the rest of the economy due to declines in world tobacco prices or changes in domestic tobacco policies for example.

China: Tobacco production generates 0.5% of GDP, 1.5% of total agriculture, and tobacco exports are very small; thus, a decrease in world tobacco prices would not affect the quantity of tobacco exports. Another scenario would be to see the effect of an increase of cigarette taxes of 10% to 30%. An increase of taxes of 30% would lead to a decrease in consumer demand of 9% (assuming a price elasticity of -0.4), an increase of total government revenue of 5% and a decrease of 1.2% in leaf production and a decline of 1.9% in the manufacturing production. The decrease in production would reduce employment in the tobacco sector. The released labor would either be used to grow other crops or would be shifted to the construction sector. A third scenario, in which cigarette prices rise by 30% would lead to a reduction of only 0.02% in demand, an increase of tobacco products profits of 116% and an increase of total government income of 1.9%. Results show that increasing tobacco taxes seems to be more effective than raising cigarette taxes in reducing tobacco consumption.

If low-quality cigarette production were to be cut by 50%, demand for tobacco products would fall by 8.4%, demand for low-quality products would fall by 70% while for the high-quality products it would rise by 43% only and total government revenue would rise by 0.6%. This scenario seems to be the most effective in reducing tobacco consumption.

A last scenario would be that China reduces its tariff rates for tobacco leaf and product import by 24%. Given that imported cigarettes are different from domestically produced ones in flavor and taste, the elasticity of substitution is expected to be low, thus a reduction in tobacco import tariffs would induce an increase of 1.7% in tobacco leaves

imports and 5.5% in tobacco products imports. The share of imported products in total consumption remains almost unchanged.

Malawi: Tobacco production represents 14.4% of GDP, 17% of total agriculture and tobacco exports represent 50% of total exports. The model simulates a reduction of the export price of 40%. If farmers respond by reducing labor supply employed in tobacco production, this decrease in the export price would lead to a 43% fall in total tobacco production. The value of tobacco exports at the border prices would fall by maximum 66%. Also, the demand for labor in tobacco production would fall by 90% among the small-holders and by 76% among large-scale producers. Assuming the possibility of labor adjustment, if the export price fell by 40%, GDP would fall by 1.8% and the real exchange rate would depreciate by 21%. However, total government revenues would rise by 1.5% because the government's revenue is based on domestic currency and, as the foreign transfer accounts for more than 20% of the government's total revenue, the domestic currency depreciation increases the purchasing power of the government revenue. Another explanation is that the tariff revenue calculated by the domestic currency also increases due to the depreciation. Alternative crop production would rise, mainly tea followed by maize and sugar. To reduce the risks resulting from such changes in export prices, Malawi needs a more diversified and flexible export structure.

Turkey: Tobacco production represents 1% of GDP, 1.5% of total agriculture and tobacco exports represent 2% of total exports. Exports of unprocessed tobacco products would decline by 34% and production would contract by 14% if the world price were to fall by 40%. Turkey is one of the largest exporters in the world but tobacco exports only account for 2% of their total exports, consequently, a decline in the world tobacco price would not have much impact on the Turkish macro economy. Decline in world tobacco prices would not affect the government revenue either because revenues from tobacco related activities only accounted for about 5 per cent of the Turkish government revenue. Another scenario would be to simulate an increase in cigarette sales tax. For example, an increase of 30% of cigarettes sales tax would result in a fall of 6% in demand and a 13% increase in cigarette expenditure. This increase in cigarette sale's tax would also lead to a decline in 1.5% in tobacco output and an increase of 2% in unprocessed tobacco products. A last scenario would be remove production subsidies in the tobacco sector. The rate of subsidy in the base is equivalent to 10 per cent of the value of the inputs employed in the tobacco production. If this subsidy was removed, tobacco growers would have to pay the full price for the input they use in their production and hence tobacco production would become less profitable. Removing this subsidy would result in a fall of the supply of tobacco by more than 5%, this effect is larger on the supply of tobacco than would have a decrease of 10 per cent of the world tobacco prices. Simulations assuming a reduction of 10 per cent in tobacco prices would cause a decrease of less than 5% in the supply of tobacco.

Zimbabwe: Tobacco production represents 7% of GDP, 43% of total agriculture and tobacco exports represent 35% of total exports. The study shows the effect of a decrease in world tobacco prices ranging from 5% to 40% of the base price. In the case of a 40% decrease in the world tobacco price, the labor demand in tobacco production would decrease by 26%. The wage rate for unskilled labor working in the large-scale farming sector would fall by 25%. However, as the skilled workers can easily find jobs in the urban non-agricultural sectors, the wage rate for skilled labor would only decline by 5%.

In the simulations, almost all agricultural activities increase demand for unskilled labor and more than 60% of unskilled workers released from tobacco production would be hired in the production of sugar, cotton, coffee and maize. A decrease in the world tobacco prices of 40% would also lead to an increase of 15.6% in the exchange rate, a decrease in GDP of 4.5%, an increase in total exports of 1.4% and an increase in total government revenue of 0.9%.

Comments and discussion:

The presenter pointed out that there is an important difference between the projection methodology and the simulation methodology used in the CGE models. With projections, the price is given and, based on past trends and changes in population, income or technology, future changes in supply are projected. Simulations in the CGE models do not include dynamic factors; with a given income, a given population or a given technology, the study calculates the effects of a hypothetical change in price on supply.

A participant raised that the CGE models look at the effect of a decrease in world prices of tobacco, a consequence of a reduction in global demand, but the projections predict an increase in demand for the following decade. The two studies go in two different ways. The FAO replied that this is because the projections were started a while after the CGE studies were initiated, thus CGE models did not take into account the conclusions of the projections study. For the final draft, FAO will work on integrating those different aspects of their project.

The FAO also noted that the adjustment costs farmers will face, if supply in tobacco were to be reduced as a consequence of a fall in world tobacco prices, were not taken into account in the CGE studies. It was explained that this is a result of a lack of data about adjustment costs, and because CGE models are not designed to study adjustments, but simply compare two different equilibria, without being concerned with the adjustment path (even though it may in fact take decades to reach a new equilibrium). Data about the adjustment path are needed to build realistic models.

A participant argued that the scenario highlighting a reduction of 40% in tobacco price is unrealistic, it would be more rational to consider a range of reduction of 10-20%. However, this large decrease in price should be considered at a national level and not at the global level. Some countries like Malawi or Zimbabwe have experienced decreases of this magnitude in the past. This reduction is not only determined by a reduction in global demand but many other factors at the national level (for example: transport costs, processing factories, various tariffs in the region etc.) play an important role too. Thus, it is important to separate out the decrease in global demand and what could happen at the national level.

A comment was made on the validity of the CGE model since structural changes in agricultural economy are based on short run price volatility.

It was raised that the CGE study on Malawi posits a dualistic agriculture, consisting of ‘small-scale’ and ‘large-scale’ segments. A considerable amount of literature in the 90s documented the transformation of this dualistic structure to a broader continuum. It is more accurate to describe the sector as consisting of small-holder farms (generally <2

hectares), medium-scale farms (generally 5 to 20 hectares), medium-scale estates (generally 30 to 60 hectares), and large-scale estates (100 ha. +). These compete for labor and at least the first three categories have operated in inter-twined land and capital markets. This goes against some of the model's simplifying assumptions.

Some participants pointed out that all the above studies show that tobacco is a very profitable crop but those countries, which depend on this crop, are still very poor. Even if they keep on just growing this crop will they be able to better develop their economy? That's why it is also important to consider crop diversification. Governments should find ways to facilitate the process of switching but not try to control the process because farmers are clever enough at switching to other crops based upon market realities, and in this regard they are far ahead of policy makers.

2.5 Further research issues and policy implications (Brian Moir, FAO)

The presenter summarized the major conclusions from the studies presented during this session and the issues that need more discussion.

The projections work first outlined global trends in production, consumption and trade of tobacco. Production in developing countries accounts for 70% of global production, largely dominated by China. Regarding exports, developed countries play a bigger role than in production but developing countries still dominate overall. The US is the biggest exporter. The projections show what might happen in the absence of a significant change in global policies by 2010. Production and consumption are expected to increase, increasingly dominated by developing countries. Trade is also expected to increase; developing countries will export more, whereas developed countries will import more tobacco products.

The presenter explained the assumptions lying behind the CGE modeling. The methodology does not incorporate dynamic elements and no assumptions are made about the time period over which demand might fall. The CGE modeling does not incorporate any specific adjustment mechanism; based on an initial equilibrium, it simulates what a new equilibrium might be.

The general conclusions of the studies are that while a reduction in demand might have negative effects on some developing countries that rely heavily on tobacco and while the impact on some farmers might be serious, the overall impact at the national level seems likely to be modest, assuming that adjustment is possible in these countries. In more diversified economies, the implications of a weakening in demand for tobacco would be less serious. In China, farmers have alternatives to tobacco and will not lose much of their profitability by switching to other crops, but government revenues might fall. In India, there are some divergences between the different studies that have been done, but some suggest that there will be considerable loss in farm income if farmers switch to other crops. Malawi has fewer crops to which to diversify, the alternatives that exist provide smaller returns to producers. If global tobacco markets were to contract, production would decrease. But Malawi and Zimbabwe would continue to supply the world market, and would retain their comparative advantage.

The increase in the supply of other crops would make their prices fall. Thus the problem is not only to find alternative crops but also a market that can absorb a significant increase in production.

It is important to note that it is very difficult to model the impact of new policies which are not yet clearly defined. Once scenarios defining those policies become clear, the analysis already done can be revised, it would come up with more useful results and get a better idea of the implications of these policies in a specific economy. Researchers should look in more detail at what the adjustment process would be in specific countries in response to new policies. After that, they should try to assess what sort of assistance would be needed for countries which would suffer from a fall in global demand for tobacco. However, they should keep in mind that it is also important to take into account the full international dimension in agricultural pricing in the case of a decrease in tobacco prices; it would be difficult to suggest alternative crops if the markets for these crops are distorted by subsidies elsewhere.

Tuesday 4 December

Session 3: Employment issues in tobacco manufacturing

The first part of the session was concentrated on the ILO's work in the area of international tobacco control. A study looking at employment in the tobacco industry was summarized and two studies on employment in the bidi industry in India were overviewed. Also, the ILO presented its program to support smoke free workplaces.

During the second part of the session, five country-case studies (Armenia, Bulgaria, Egypt, Kenya and Viet Nam), evaluating the impact of tobacco control policies on employment, were presented.

A toolkit on employment was prepared by the World Bank to help economists examine the effects tobacco control policies might have on employment. In particular, this toolkit provided information on how to use "input-output" analysis and other methods to evaluate the likely impact of tobacco control on employment. This toolkit was used in some of the country case studies.

3.1 Employment trends and prospects: the world tobacco industry (Gisbert van Liemt, ILO)

The presenter gave a brief overview of world trends in production of different types of tobacco, the main producers, exporters and importers. He also presented the different strategies that tobacco companies have been following lately in response to slowed demand growth: consolidation (merging, concentration), diversification and increase in productivity. Tobacco companies also face increasing litigation from plaintiffs suffering from the negative consequences of tobacco use. Government actions regarding tobacco control were described. Governments face a dilemma, since on the one hand, tobacco-growing and processing contribute to employment, tax revenue and foreign exchange. On the other hand, they have the obligation to protect the population's health; and treating people for smoking-related illnesses is very expensive. They try to limit tobacco consumption by banning smoking in public places, prohibiting the sale of tobacco

products to young people, banning or restricting advertising and raising awareness among people about the dangerous effects of smoking. Governments also increase taxation on tobacco products. This policy can reduce tobacco consumption and raise government revenues. But some argue that this policy can have adverse economic consequences. This tax could be regressive, weighing heavily on poor people. Finally, increased taxes could encourage smuggling. Regarding employment, there has been a downward trend in employment in cigarette manufacturing since the last decade and the trend seems likely to continue. This could be explained by slowed demand growth, privatization, trade and capital liberalization (which pressure manufacturers to improve efficiency and thus contribute to a reduction in employment) and new strategies followed by tobacco companies seeking consolidation and higher productivity.

Comments and discussion:

It was pointed out that information needs to be updated as much as possible. The paper is talking about tobacco manufacturing in the 1990's, thus some information is rather out of date.

One participant argued that the discussion on smuggling did not mention the highly publicised role that manufacturers have played.

Though it would be very difficult to isolate the effect of a fall in demand on tobacco employment, the paper attempts to do so. For example, consolidation in the tobacco industry, as explained in the paper, has resulted in, among other things, economies of scale, increased productivity, and in turn, reduced employment. Is consolidation due solely to trade liberalisation and privatisation? Has consolidation occurred as a result of increased tobacco control? These are important questions that should be posed and explored.

One participant noted that the study seems to suggest that most governments use fiscal policy ("raising tobacco taxes") to reduce tobacco consumption. Although it is true that an increasing number of governments are beginning to use fiscal policy to reduce the demand for tobacco products, it is incorrect to state that most do. Real tobacco prices have not risen in many countries in recent years. Also, the discussion on taxation is oversimplified and misleading. Most consumption taxes are regressive. However, changes in taxes may not be regressive and can even be progressive. Studies by the World Bank show that many poor households devote a significant percentage of their expenditures to tobacco products. This has very high opportunity costs, given high levels of malnutrition and other pressing family needs. Analysis has also shown that tax increases would not greatly increase the tax burden on these poor households, because they tend to cut back their tobacco consumption in reaction to price increases much more than higher-income households, and thus would also benefit strongly from reduced levels of risk to health.

Another participant highlighted again the argument in the presentation stating that taxes on tobacco products could be regressive, weighing more heavily on poor people. The participant noted that reluctance to increase the tax incidence on low income consumers would lead governments to increase taxes on relatively expensive tobacco products (manufactured "white" cigarettes) more than on cheaper products (for example bidis) that are consumed mostly by poorer people. The resulting increasing price differentials will

cause some people to switch to relatively lower priced products, rather than quitting or reducing their consumption. Although intended perhaps to shield poor consumers from harm, this may have the opposite effect, because smokers who are encouraged to quit by higher prices will reap double benefits: the benefit of being able to switch their expenditures from tobacco, a harmful product, to other goods and services, and the important health benefit that comes from quitting. A smoker who quits quite quickly reduces the risk of tobacco-related diseases.

Furthermore, a participant added that the discussion ignores the effect that tax increases have on the prevalence and initiation of tobacco use. The discussion should also make mention of the benefits of cessation.

3.2 An overview of the bidi industry in India: the scenario in selected states (Clara Foucault-Mohammed, ILO)

This study was commissioned to look at the vulnerable group of bidi workers, their conditions of work and to map out ways in which these conditions can be redressed. Tobacco control and its impact are referred to in the study but in an empirical manner, they are not scientifically supported. The study focused on 4 states in India: Madhya Pradesh, Gujarat, Kerala and Andhra Pradesh. The criteria for selecting these four was determined by a high concentration of bidi workers; some headway made with employment diversification; some empirical evidence of a decline in the industry; and areas where a convergence of factors would allow for follow-up work and speedy results which would benefit displaced workers within a short to medium term. The study combines a desk study, using Ministry of Labor data, and a field study based on a state by state analysis of working and living conditions, declining employment and issues related to diversification. The data indicate that there are 4.5 million workers in the bidi industry and there is a preponderance of women assisted by child workers (children account for 11% of total workers). The bidi industry absorbs 93% of employment in the unorganized sector of the tobacco industry. But since home-based workers are difficult to identify, the data are underreported. The findings of the field study consider that the principal cause of a decline in employment in the bidi sector is competition with other tobacco products (mini-cigarettes, chewing tobacco), competition among bidi brands, relocation of plants to areas with lower wages or lack of implementation of labor laws, and influx of migrant workers. Bidi is perceived as a low-class product smoked by poor. New generations coming from a bidi-worker class, more educated, are unwilling to continue bidi work and many of them have relocated into construction, transportation, as street vendors or have opened small commercial stores. A number of exploitative practices by bidi employers are found in this sector. But surprisingly, this unorganized sector seems to be a highly regulated industry (see for example the Beedi Workers' Welfare Fund¹ of 1977). The real issue would be to find a way to extend workers' rights to all bidi workers.

3.3 Alternative employment for bidi workers in India: an action project (Arun Kumar, ILO)

¹ The Beedi Workers Welfare Fund is administered through the Labour Welfare Organization, Ministry of Labour and is financed through a levy from excise duty on manufactured beedis.

The bidi industry in India is an agro-forest industry spread all over the country. It accounts for 50% of tobacco consumption and employs 90% of home based poor women. The sector is mostly unorganized but strong trade unions exist. The Beedi Workers' Welfare Fund established in 1977 covers about 3.7 million workers. It provides health care, maternity benefits, education scholarships for children, group insurance, water supply and sanitation, housing schemes and recreation. Unfortunately many women don't have access to this fund because they were refused identity cards. Women in the bidi industry face also other problems: they only work few days a week and receive less than the minimum wage, they face health problems probably caused by the production of bidi, they are not organized, they don't have access to social security and they can't find alternative means of livelihood. ILO is working on a project to promote "decent work" opportunities for women bidi workers in India by supporting the national efforts to improve the welfare of poor families and promoting supplemental income and employment opportunities for women in areas where bidi work is declining. This project has a three-phase strategy. The first one works on organizing, training and capacity building of self help groups of bidi women and NGOs towards initiation of income generation activities. The last two phases will set up a Revolving Fund, promote selected economic activities and build institutional linkages for self-sustenance of pilot initiatives. The project is in phase one and the expected difficulties are in finding alternatives, improve organization in the sector and encouraging entrepreneurship and other skills.

3.4 Smoking in the workplace: an occupational hazard (Carin Hakansta, ILO)

The presenter explained briefly the work of the ILO's Occupational Safety and Health department. The group is concerned with the promotion of a healthy workforce in a healthy workplace. It focuses on the protection of workers from environmental tobacco smoke by eliminating all tobacco smoke in the air. Passive smokers run serious health risks: environmental tobacco smoke (ETS) can cause various types of cancer, heart problems, lung diseases and stroke. In many workplaces, tobacco smoke may aggravate already hazardous working situations. In other words, already carcinogenic chemicals become more hazardous to health when they interact with tobacco smoke. This is the case for people working in coal mines, wine production, rubber and petroleum industries, agriculture, textile industry, construction, carpentry and furniture industry. Tobacco growing and processing also involves health risks. Tobacco smoke is not only a health risk, but it is also the leading cause of fires and explosions at work, it is an important factor in motor vehicle accidents, a cause of burns and it causes reduced visibility.

Employers should take the problem of smoking at work seriously because it causes a loss of productivity and competitiveness. This is because smokers spend a lot of time away from their workstation to smoke, have higher rates of sick leave compared to non-smokers, their annual healthcare costs are higher, their smoke can lead to accidents and fires, and higher maintenance and cleaning costs. To implement a smoke-free policy, the employer should make sure that the coverage of the policy is comprehensive, encourage social dialogue, provide education and training on the hazards of tobacco smoke and also provide smoking cessation support.

Comments and discussion:

A question was raised regarding bidi workers' children's attendance at school. One of the presenters replied that the above studies report that there is 90% school attendance by these children. Girls are more likely to suffer from lack of education to help their parents on bidi rolling. The Beedi Workers' Welfare Fund provides scholarship to send bidi workers' children to school and many mothers try to have a scholarship for at least one of their girl children.

Defining the bidi industry as unorganized but also organized and regulated seemed to be unclear to some participants. One of the presenters argued that it appears that this industry is unorganized in terms of the workers since very few are unionized but in terms of production, it is highly organized. In terms of regulation, the legislation is in place but whether it is enforced is another issue.

The bidi industry employs 4-5 million persons; one participant noted that this number is large compared to the biggest cigarette factory in Europe based in the Netherlands employs 2,000 persons. It was noted that bidi making is very labor intensive.

A participant noted that the studies on bidi stated that there was a lack of alternative work which could seem incorrect when looking closely at evidence. Evidence shows that in some regions of India bidi producers were able to diversify (by producing for example pickles) and make more profits than when they only produced bidis. The alternatives are difficult to find but they do exist.

3.5 Country-case studies on employment issues in tobacco manufacturing

3.5.1 Armenia (Ashot Kurshudyan, ICHD Armenia)

The Armenian tobacco industry was completely ruined after the collapse of the Soviet Union. Since then, it has been starting slowly to build up. The share of tobacco in total farm output was 5.7 per cent in 2000. The tobacco sector does not have a significant share in agriculture but it is growing and is expected to maintain this trend in the future. In the leaf processing sector, only one company is active and it employed only 800 persons in 2000. Employment in cigarette manufacturing factories constituted 0.07 per cent of total employment in 2000. The total number of persons employed in cigarette wholesaling and retailing was estimated at 1,661. There is still no regulation in the tobacco sector in Armenia, a draft law is being prepared to reduce tobacco use. However, tobacco taxes are higher than in other sectors. Total tobacco tax revenues constituted 11 per cent of all tax revenues. The lack of data in Armenia does not allow the use of input-output analysis to estimate the possible impact of tobacco control policy on overall employment. Because there are so few companies in the tobacco sector, and because there are few linkages between tobacco production and other sectors, the consequences of tobacco control can be estimated easily.

If the government decided to impose smoking restrictions and to increase taxes by 10 per cent, then a 9 per cent reduction in demand for locally produced cigarettes is predicted. How will this affect employment? In tobacco farming, the reduction in demand will worsen the living conditions of about 1,800 farmers but will not create unemployment. Alternatives exist for farmers who can produce juice and canned goods as well as several types of vegetables and fruits. In leaf processing, it is estimated that 65 persons would

lose their jobs, which is a very small number compared to the overall labor force. Cigarette manufacturing uses highly developed technology and the total wage bill in this sector is small compared to other sectors. The profitability of this sector is high and the companies are not likely to reduce their labor force because it is not a serious burden for them. Therefore, less than 100 persons are expected to lose their jobs in cigarette manufacturing. The result of a 9 per cent demand reduction will not affect employment in wholesale and retail trade significantly. The tobacco industry is not a key industry in Armenia, and reduced demand will have little economic impact.

3.5.2 Bulgaria (Roska Ivanova Petkova, Bulgarian Academy of Sciences)

Bulgaria experienced a big economic crisis in the 90's, which has had aggravating effects in all the sectors of the economy. Tobacco production has declined by almost three times in the last decade, the same phenomenon is observed for cigarette production. Thus, the supply side of the tobacco sector is different from the other transitional and developing countries. There has also been a sharp decline in employment by approximately three times. The reduction in tobacco production and employment is mainly due to restructuring and the economic crisis of the 90's. There has been an increase in general unemployment (the official rate of unemployment was 16 per cent while the real rate was more than 25 per cent) as a result of the collapse of most heavy industries. The biggest concern is about regional unemployment in the tobacco sector. The regions where the tobacco industry is concentrated are also the regions where the mining industry and other branches of heavy industry have been developed as an alternative to tobacco in the past, and were very hard hit by the economic crisis. This regional unemployment affects ethnic or minority groups in particular. The main tobacco growers are Muslims and they are concentrated in those economically vulnerable regions where unemployment sometimes reaches 80-90 per cent of the population. There are few economic alternatives. The forthcoming privatization of the cigarette industry, where some big transnational companies are the potential buyers, is also likely to have negative effects on employment. Bulgaria has already experienced a very strong reduction in tobacco production and employment, a level below this one could lead to political and social tensions. If we consider a reduction in tobacco consumption due to a reinforcement of tobacco control policies (such as increasing taxes of tobacco products), based on the input-output analysis, it is expected that employment in the tobacco sector will be reduced and the employment in the other goods and services sector will rise but the overall effect will be a reduction of total employment. However, this reduction will not be significant. The strategy for a stable tobacco control policy has to be pursued step by step taking into account some social concerns and possibilities for the development of alternative forms of employment. The Bulgarian government needs guidance in many fields of tobacco control where it has not enough experience. It needs help for example in the fight against smuggling, in spreading information about the health consequences of tobacco consumption and in protecting children and other risk groups.

3.5.3 Egypt (Heba Nassar, University of Cairo)

Egypt has the highest rate of tobacco consumption in the Arab world and consumption is increasing. This could be explained by the decline of tobacco prices in real terms since 1993, by the quality improvement in locally produced cigarettes with better packaging and by the increase of consumption of foreign cigarettes. The tobacco industry is owned

by the government which controls 92 per cent of the Egyptian market. The revenues of the tobacco industry increased by 50 per cent in the period 1994-1999 and profits increased by 250 per cent in the same period. The tobacco industry absorbs 2.4 per cent of industrial employment. There is no tobacco farming in Egypt and only two sectors need to be considered in tobacco employment: manufacturing and wholesaling and retailing. The input-output method has been used in this study to measure the effects of tobacco control policies on total employment. The calculated employment multiplier in the tobacco industry is very small and one of the lowest multipliers among sectors, in part because the tobacco industry is capital intensive, and needs a very small number of workers.

Two scenarios have been simulated to measure the effect of tobacco control policies on total employment: an increase in the price of cigarettes and the implementation of non-price measures (in this case, based on the assumption that there is a negative relationship between the level of education and expenditure on cigarettes, the level of education was used as a proxy for the enforcement of non-price measures). Both measures will lead to a decrease in employment in the tobacco sector and a decrease in tobacco production. But cigarette consumers will switch to other goods which will create a net increase in total employment, and workers will switch to more labor intensive sectors like the food industry, the textile industry and agriculture. Consequently, the results show that the implementation of tobacco control measures (price and non-price measures) in Egypt will lead to a decrease in employment in the tobacco sector but will also lead to a net increase in overall employment, which will have a positive impact on the economy.

3.5.4 Kenya (Leopold Mureithi, University of Nairobi)

Tobacco manufacturing is controlled by two companies in Kenya and tobacco is grown by small-scale farmers. Kenya is a net exporter of tobacco and tobacco products. But these exports represent only one tenth of one per cent of Kenya's total exports. Regarding taxation, the excise tax rate on locally manufactured cigarettes stands currently at 135 per cent ex-factory. The excise tax on tobacco and its products contributed 2 per cent of government revenue in 2000. The total number of tobacco farming households has dropped lately, this is probably due to major restructuring in leaf growing. The production of tobacco has also dropped. The per capita consumption of cigarettes in the last decade has dropped by almost 50 per cent, this could be due to the bad economic situation of the country. The tobacco industry encompasses a whole range of activities: agriculture, manufacturing and commerce. The tobacco industry is labor intensive in its agricultural operations, highly capital intensive in its manufacturing stage but labor using in its marketing and distribution. Total tobacco employment represented 2.1 per cent of total recorded employment in Kenya in 2000. It is worth noting that the tobacco companies give farmers subsidized farm inputs. The government regulates tobacco consumption by imposing bans on advertising, restricting smoking in public places and requiring warnings on cigarette packets. Comprehensive tobacco control policies would reduce cigarette consumption and could adversely impact employment in the tobacco sector in the long term. However, this effect is speculative at this time; it is not clearly defined and would require quantification. The input-output analysis would be very helpful but required data are not available at the moment and need to be gathered.

3.5.5 Viet Nam (Hoang Van Kinh, Hanoi Trade University)

Viet Nam has a tropical climate which is very suitable for tobacco cultivation, but the type of tobacco grown is not of a very high quality. Tobacco is cultivated by households on a small scale; they constitute the unskilled labor. Tobacco cultivation supplies 70-75 per cent of domestic demand; 30 per cent of tobacco leaf is imported and the share of exports is very small. The cigarette industry is expanding in the country and is trying to improve the quality of tobacco. The import of manufactured cigarettes is illegal and most these cigarettes entering the domestic market are smuggled. Despite the instability in the output of domestic leaf over the past few years, cigarette production in Viet Nam is on the increase.

Tobacco-related employment accounts for only about 0.5 per cent of national labor in agriculture. Tobacco employment in agriculture represents the biggest share of tobacco employment (74 to 78 per cent of total tobacco employment). It is also important to notice that tobacco is rarely the main source of income for farmers. Tobacco-related employment accounts for 0.3 per cent of total manufacturing employment and one per cent in retail sales. And in most cases, sales of cigarettes account for only a small share of the merchandise sold by retailers. The quantitative analysis of the input-output model, which measures the effect of tobacco control policies on employment, is not possible due to a lack of available data. Regarding tobacco control policies, the target of the government for the coming decade is to implement policies (such as advertising bans, restricting or banning smoking in public places, limiting production capacity or controlling cigarette trading) which aim to reduce the consumption of tobacco products by 1 billion packs per year by 2010. If this target were to be attained, this would reduce domestic production of tobacco and tobacco employment. Tobacco employment is expected to decline by 90,000-108,000 workers. But the effect on total national employment is not clear since no study was made on the equivalent increase in employment in other sectors due to a switch from cigarettes to other goods and services.

Due to a lack of time in the schedule, the discussions on the country-case studies were reported in the following session, within the working group on employment.

Session IV: Issues of employment, smuggling and privatization

This session was divided into two working groups so that participants could gather in smaller groups to discuss more deeply issues of interest. The first working group focused on employment issues, more specifically on the country-case studies. The second working group discussed smuggling and privatization. The participants also tried to identify major topics where there were information gaps and on which future research should focus.

Working Group I: Employment

Concerns were raised regarding the different measures used to reduce tobacco consumption. Is there a difference in the effectiveness of price measures and non-price measures? Do they reduce demand to the same extent; do they affect employment the same way? It is hard to answer these questions. Sound analysis and good data are needed to capture in particular the effects of non-price measures. Also, it was noted that the level of enforcement will affect impact. Most developing countries don't have this kind of

data, but they could be found in richer countries. It was also pointed out that in some cases, there is a short-lived, dramatically effect on consumption, eg from an information shock, and then consumption picks up again in the longer term. Another issue would be to look at the interaction effects among price and non-price measures.

A comment was made on the reliability of price-elasticity estimates. Price elasticity is estimated to be high in developing countries but usually assumes the absence of smuggling. This is not the case in reality and it should be taken into account when identifying the effectiveness of price related measures. It was however pointed out that studies using individual level data do control for the presence of smuggling. As well, some studies have controlled for the presence of smuggling and still found a significant price-elasticity.

Also regarding price measures, it was discussed whether cigarette price increases reduce consumption or make consumers switch to other cheaper tobacco products. To avoid this kind of substitution, all tobacco products should be taxed and not only cigarettes. But this might become a problem when consumers switch to an illegal product.

Regarding the input-output model used in some country case studies, a participant noted that all effects might not be covered when this method is applied because the informal sector is not taken into account. This could weaken the study in countries where the informal sector is very important.

Participants discussed the extent to which tobacco control measures reduce demand, and hence employment. But it was also noted that the tobacco industry introduces new technologies which also reduce employment, usually to a much greater extent than tobacco control.

It was pointed out that in order to help have effective tobacco control policies, policy makers should consider several important aspects in order not to meet resistance from society and the groups possibly affected by those measures. Governments might consider compensation to help those groups transition to alternative livelihoods. Research must focus on defining the costs of adjustment in developing countries and try to find substitutes for tobacco, considering also labor intensity, the number of hectares needed for production, etc.

Working Group II: Smuggling and privatization

In this working group, presentations were made on smuggling and privatization. The first two presentations focused on the causes of smuggling, recent lawsuits on cigarette smuggling, the role of the industry and the different types of smuggling, as well as a description of the activities of the European Anti-Fraud Office in the fight against cigarette smuggling. The third presentation on privatization tried to answer the following questions: : what are the consequences - benefits and costs, to the state and to consumers (and to the new owner of the company) – of privatisation?

1. Smuggling of tobacco products (Luk Joosens, WHO)

Worldwide, only three-quarters of exported cigarettes appear as legal exports. The missing ones are probably smuggled. Illicit trade is estimated at 400 billion cigarettes annually. Smuggled cigarettes represent a loss of tax revenue for governments and a public health problem. The total loss of revenue by governments due to cigarette smuggling is estimated at \$25-30 billion annually.

Evidence shows that smuggling is more prominent in Eastern Europe than in Western Europe and more prominent in Africa than in Europe even though the highest prices of cigarettes are in Western Europe. This means that price is not the only reason for smuggling. There are two kinds of smuggling, bootlegging, caused by price differentials between neighboring countries, and large-scale smuggling, the main reason being tax avoidance. In the case of the UK, data show 80 per cent of smuggling is large-scale or container smuggling and bootlegging contributes much less to smuggling volumes.

Cigarette smuggling is facilitated by the abuse of the transit system and the onus should be placed on the tobacco industry to prove that their products arrive in the legally intended end user market. There are two ways countries attempt to address smuggling: by tackling organized crime or by reducing taxes. Spain experienced a big smuggling problem, even though cigarettes prices were very low, and has tackled organized crime and succeeded in reducing smuggling from 15 per cent to 5 per cent and increased total tax revenues. Conversely, Sweden and Canada lowered their taxes and their revenues went down.

In order to resolve the problem of smuggling, it is important to point out that it must be tackled at an international level.

2. Measures to control the smuggling of tobacco products (Austin Rowan, OLAF)

When cigarettes are smuggled into the European Union there is a loss of customs duties, which has a detrimental impact on the budget of the European Community and individual member countries. Those losses are estimated to reach several billion Euros a year. Under the treaties and legislation of the European Union the protection of European Community Finances is the responsibility of the European Commission. Within the European Commission the European Anti-Fraud Office is responsible for Anti-Fraud actions to protect community finances.

The Cigarettes Task Group was formed in late 1994 in response to the growing problem of cigarette smuggling into the European Union. The Cigarette Task Group obtains and disseminates intelligence in relation to movements of suspect consignments of cigarettes, suspicious companies etc. It coordinates actions undertaken by the relevant services in the Member States, such as organizing and leading European Community investigative missions to third countries to obtain evidence in relation to cigarette smuggling into the EU and to present that evidence before the Nations Courts in the EU if necessary. The European Community has many mutual assistance agreements with countries outside the European Union. These agreements provide the legal base in order to exchange intelligence, carry out investigations and generally work together in the fight against fraud. For example, under the terms of the agreement between the United States of America and the European Community on customs matters, the European Anti-Fraud Office Cigarettes Task Group, works very closely with U.S. Customs in the field of

cigarette smuggling. Evidence shows that there are clearly established links between smuggling of cigarettes into the EU and organized crime, such as the Mafia in Italy, Russian criminal groups etc.

3. Privatization: Economic and public health implications (Ayda Yurekli, the World Bank)

The questions to be addressed regarding privatization are: does it worsen the adverse health impact and market failures that beset tobacco products? If so, what regulatory or other measures would be appropriate? Generally, privatization is expected to bring benefits by increasing efficiency and productivity which lead to lower prices, higher quality and more variety of a product. This increases consumption, accessibility and affordability of products. But since tobacco is a special product, the expected outcomes of privatization may lead to an increase in deaths and diseases, an increase in health care costs and an increase in the burden on society. In the Ukraine, cigarette production increased after the tobacco industry was privatized. In Turkey, with the introduction of private sector companies, cigarette consumption has increased even though income has decreased and prices have been relatively stable.

The potential benefits of privatization would be the increase in foreign investment and government revenues and perhaps a less obvious conflict of interest between the interest of the state-owned company and the Ministry of Health. The potential disadvantages would be more aggressive marketing and promotion and higher tobacco consumption. Also private producers may influence governments' decision on tobacco control measures and abuse tobacco control measures using loopholes in regulations and laws. The potential negative effects of privatization on public health could be minimized if a regulatory tobacco control framework is set up to protect consumers.

Comments and discussion:

It was raised that privatization often occurs in response to the financial problems inefficient state enterprises cause for government budgets. It is not necessarily the ideal solution because of the health consequences. But if privatization is being considered by governments who own tobacco industries, research must try to find guidelines for government officials to help them decide whether they should privatize or not. These guidelines should be drafted based on each country needs and situation. Also, a participant noted that some follow up should be made after privatization has occurred in a country.

Some participants argued that research should also focus on finding data to estimate more thoroughly how privatization may affect consumption, taking account of other relevant factors and different country situations.

Regarding harm reduction, it was raised that more research should focus on the way to define it. The issue of whether there are safer cigarettes is not well studied. Do safer cigarettes really exist and does privatization help harm reduction?

In the area of smuggling, participants noted that more reliable data at national and international levels must be found and information on the probable involvement of

tobacco industries must be gathered. It is important to have a clear picture of what is going on in both the demand and the supply side of tobacco product markets.

It was also pointed out that the partnership with other international agencies can be very helpful. WCO's experience in the field of smuggling could be fruitful. WCO has a strategic expert group working for many years now on cigarette smuggling and covering the entire world.

Session V: Policy implications and research agenda for tobacco control in the 21st century

During this session, the main issues discussed in the two working groups were summarized. Also, the research agenda developed by Research for International Tobacco Control (RITC) and the World Health Organization in July 1999 was updated, based on the discussions of the last two days' meetings. The research agenda highlights the eight important categories research should focus on.

- Reports from working groups:

Working group 1: Employment

Regarding employment issues, research must focus on the collection of broader data. To be able to make good studies by using for example the employment toolkit of the World Bank, specific tobacco-related data need to be found. The problem is that usually in many countries the few tobacco producers form an oligopoly and want to keep their data confidential so they are not reflected in national statistics. Researchers must find a way to surmount this accessibility of data problem.

The employment toolkit seemed to be useful for some countries where it had been applied. However, research should look at ways to improve the methods calculating the impact of reduction of tobacco demand on employment. In the input-output model, for example, there is a gap because the tobacco products produced in the informal sector are not taken into account and this would lead to less accurate results. However, it is important to note that this lack of information only underestimates the proportion of total employees. If tobacco control measures were to be implemented, this might lead to more employment in the informal sector. Consequently, if the input-output model concludes that tobacco control measures will lead to a reduction of total employment, the reduction will be less dramatic because of the increased number of employees in the informal sector. On the other hand, if the input-output model concludes that total employment will increase, the increase will be higher than stated because of the informal sector.

When it comes to the impact of tobacco control measures, the time horizon must be well specified. How long does it take for the measures to have a full impact on the economy? Five years, ten years, thirty years? Research could focus on finding the most appropriate time horizon to be used in the various studies.

Regarding alternative livelihoods, many aspects are relevant to defining good alternatives for farmers switching from tobacco to other activities: are the alternatives on farm or off farm, are the farmers living in urbanized or rural areas, is income from the alternatives

stable or not, do farmers want occupations that need the same amount of hours as tobacco cultivation or do they look for alternatives that bring the same or better yield? Another important issue to consider is the international dimension of alternative activities, especially alternative crops. Also, the approach will be different depending on whether the study looks at small-holders or large-scale farmers. If tobacco demand declines gradually, will farmers be able to adapt on their own or will they need assistance? Research will need to consider all these issues for a better understanding of the impact of a global reduction of demand on tobacco employment.

Working group 2: Privatization and smuggling

Regarding the issue of privatization, research should focus on its impact on countries where it's already taking place, trying to measure the effect on cigarette production, cigarette consumption and the prices of cigarettes.

Researchers should develop guidelines for government officials on how to approach the decision of privatizing or not, find the criteria for such a decision. And if governments want to privatize, what are the policies that need to be in place before privatization occurs in order to protect public health.

Another issue to consider is if products made by the private enterprises are safer. So far, no difference has been proved.

Regarding smuggling, research needs to focus on finding more reliable data at both national and international levels. A more robust multisectoral cooperation among international organizations could be very helpful in this issue. The increasing active collaboration between WHO and WCO is a good example.

Better research is also needed on the involvement of the tobacco industry in tobacco smuggling. Several industry internal documents and court cases prove the tobacco industry's involvement in illicit trade.

More research could be done on the determinants of smuggling. Corruption seems to be the main reason for smuggling in comparison with price differentials.

▪ Discussion of policy implications and research agenda:

Summary of the main research recommendations (Linda Brigden, IDRC)

The speaker commented on the research agenda developed by Research for International Tobacco Control (RITC) and the World Health Organization in July 1999 and, based on the discussions of this meeting, highlighted eight categories in the research agenda:

1. **Country specific research:** there is a need for more research on the social and economic costs associated with the tobacco epidemic and more work should be done to collect better tobacco-related data in many countries.
2. **Policy interventions:** regarding economic issues, research should focus on the adjustment path that tobacco control policy implementation would induce, the effects

of privatization and the effects of trade liberalization on tobacco production, consumption and tobacco prices and tobacco trade. Research should also study in more depth tobacco smuggling. In terms of legislative policies, there is a need to look at the level of implementation of tobacco laws, especially non-price strategies.

3. **Program interventions:** more work must be done on how to develop effective messages to encourage smoke-free homes. It should also focus on ways to develop and disseminate effective messages regarding the health impact of smoking using a limited budget.
4. **Treatment for tobacco dependence.**
5. **Tobacco product design and regulation.**
6. **Tobacco industry analysis** in order to set straight industry myths, especially those related to issues such as revenue losses, job losses and smuggling.
7. **Tobacco farming:** on this topic, research must focus on many issues like the role of the WTO and trade policies in tobacco cultivation, the future of China in world markets, identification of alternative crops and their accessibility to farmers, providing clarification for governments supporting tobacco cultivation. Also, natural experiments must be found and used as examples to identify the real effects of tobacco control policies on tobacco farmers.
8. **The Framework Convention on Tobacco Control (FCTC):** the research on all the above mentioned issues could help the development and implementation of the FCTC.

Comments from the participants added to these issues the importance of classifying separately the needs of the different regions to facilitate the work. Also, research should continue to identify the numerous benefits of tobacco control policies in the economy.

Closure

Post script:

The preliminary findings from the projects summarized during this meeting (FAO's work, ILO's work, the employment studies) have been represented in the Secretary General's report on Task Force activities to the 2002 Substantive Session of the Economic and Social Council. Work is ongoing for these projects; for example, the FAO studies report is expected to be finalized in mid-2002.

Notes:

¹ The collaborating agencies of the UN Task Force are: Department of Economic and Social Affairs of the United Nations Secretariat, Food and Agriculture Organization of the United Nations (FAO), International Civil Aviation Organization (ICAO), International Labour Organization (ILO), International Monetary Fund (IMF), United Nations Children's Fund (UNICEF), United Nations Conference on Trade and Development (UNCTAD), United Nations Development Fund for Women (UNIFEM), United Nations Development Programme (UNDP), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Environment Programme (UNEP), United Nations Fund for International Partnerships (UNFIP), United Nations International Drug Control Programme (UNDCP), United Nations Population Fund (UNFPA), The World Bank, World Customs Organisation (WCO), World Health Organization (WHO), World Intellectual Property Organization (WIPO), World Trade Organization.

² Argentina, Bangladesh, Belgium, Brazil, Bulgaria, Cambodia, Canada, Egypt, Greece, Guyana, India, Indonesia, Japan, Kenya, Malaysia, Nepal, the People's Republic of China, the Republic of Armenia, Thailand, Turkey, the United Kingdom, the United States of America, Viet Nam and Zambia.

³ Note that lower quality cigarettes may be defined as cigarettes made of low-grade tobacco leaves and packaged in unappealing ways; all cigarettes are harmful to health, and one should not get the impression that "higher quality" cigarettes are less bad for health.