



**World Health  
Organization**

**CONFERENCE OF THE PARTIES TO THE  
WHO FRAMEWORK CONVENTION  
ON TOBACCO CONTROL  
Second session  
Provisional agenda item 5.5**

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## **Matters identified in decisions taken by the Conference of the Parties that call for action in the period between its first and second sessions**

### **Establishment of a study group on alternative crops (decision FCTC/COP1(17))**

#### **BACKGROUND**

1. During the first session of the Conference of the Parties to the WHO Framework Convention on Tobacco Control, held in Geneva from 6 to 17 February 2006, a decision was made to establish an ad hoc study group on alternative crops open to interested Parties to the WHO Framework Convention (decision FCTC/COP1(17)). The work of the study group would summarize the uptake of existing economically viable alternatives for tobacco growers and provide recommendations to the Conference of the Parties regarding mechanisms to assess the impact of tobacco company practices, report on initiatives being taken at the national level in accordance with Article 17 of the Convention and recommend cost-effective diversification initiatives.

#### **OBJECTIVE**

2. In order to initiate the work of this study group, the first meeting gathered participants from interested tobacco-growing Parties to the WHO Framework Convention.

3. The objective of the meeting was to summarize the uptake of existing economically viable alternatives for tobacco growers; this report, containing the results of the meeting, will be presented to the second session of the Conference of the Parties.

4. Participants were invited to discuss the results of existing evidence and work exploring potential alternative livelihoods for farmers growing tobacco. One expected output of this meeting was to define the way forward for initiating new research, given the lack of studies in this field.

## MEETING

### Participants

5. Approximately 70 people participated in the meeting. Representatives from Parties covering all of the WHO regions, including Armenia, Bangladesh, Brazil, Canada, China, the European Commission, Kenya, Kyrgyzstan, the Lao People's Democratic Republic, Pakistan, Paraguay, Peru and the Syrian Arab Republic, were present. The President of the Conference of the Parties, Ambassador Juan Martabit, and the interim secretariat for the WHO Framework Convention were also present at the meeting. The Food and Agriculture Organization of the United Nations, the World Bank, the Research for International Tobacco Control programme of the International Development Research Centre and two nongovernmental organizations in official relations with the Conference of the Parties, the Framework Convention Alliance and Corporate Accountability International, participated as well. Observers from Argentina, a signatory to the Convention, were also present.

### Opening ceremony

6. The ceremony was opened by the Minister of Health, Agenor Alvarez, and the Minister of Agriculture, Livestock and Food Supply, Luis Carlos Guedes Pinto. Remarks were then made by a representative of the Ministry of Agrarian Development, Adoniram Sanchez, and a representative of the Minister of Foreign Affairs, Ambassador Mariângela Rebuá.

7. Speeches were also made by the President of the Conference of the Parties to the WHO Framework Convention, Ambassador Juan Martabit; by the WHO Representative in Brazil, Dr Diego Victoria; and by the Coordinator of the WHO Framework Convention on Tobacco Control Office, Tobacco Free Initiative, WHO, Dr Douglas Bettcher.

8. The ceremony was open to the press and interviews were given by the different speakers after the close of the ceremony.

## OVERVIEW OF EXISTING RESEARCH AND EVIDENCE

### Context of the study group

*The WHO Framework Convention on Tobacco Control – Link with the meeting of the study group on alternative crops (Douglas Bettcher)*

9. The WHO Framework Convention on Tobacco Control is one of the most widely embraced treaties in the history of the United Nations, with 168 signatories and 143 States (as well as the European Community) who are Parties to the Convention. These 144 Parties represent approximately 80% of the world population. Eighty-seven of the countries that are Parties to the Convention grow tobacco leaves,<sup>1</sup> and their production in 2005 represented 83% of global tobacco leaf production. The ad hoc study group on alternative crops was established by a decision of the Conference of the Parties to the WHO Framework Convention at its first session, held from 6 to 17 February 2006 in Geneva

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<sup>1</sup> Calculations compiled from 2005 Food and Agriculture Organization data. ProdSTAT: crops (FAOSTAT) [online database]. Rome, Food and Agriculture Organization of the United Nations, 23 March 2007.

(decision FCTC/COP1(17)). The objective of the first meeting of the study group is to summarize the uptake of existing economically viable alternatives for tobacco growers. A report on the results of the meeting will be presented to the second session of the Conference of the Parties, which will be held in Bangkok in 2007. Decision FCTC/COP1(17) highlights the importance of interagency collaboration for the work of the study group and mandates the study group to work closely with intergovernmental and international agencies and to cooperate with the United Nations Ad Hoc Interagency Task Force on Tobacco Control. Under the umbrella of the Task Force, two important projects were undertaken. One of these projects consisted of WHO and the World Bank making projections of consumption by 2025 and showing that consumption is expected to grow in the next 15 years, driven by increases in populations. The other project, undertaken by the Food and Agriculture Organization of the United Nations, looked at future trends on tobacco consumption, production and trade by the year 2010. The major conclusions demonstrate that tobacco production will continue to shift from developed to developing countries and that demand for tobacco products is expected to continue increasing globally.

*Introduction from Dr Luiz Antônio Santini, General Director of the National Cancer Institute of Brazil*

10. Dr Santini noted the importance of this international meeting of the study group on alternative crops being held in Brazil. Brazil is the second largest tobacco leaf producer and 200 000 small farmers and their families depend exclusively on this crop as a source of income. The role of the National Cancer Institute of Brazil, as the body of the Ministry of Health that coordinates the National Tobacco Control Program, was highlighted; this programme was developed in partnership with the Health Offices in the Brazilian states and municipalities. The Institute, which is also the executive secretariat of the National Commission for the Implementation of the FCTC and its Protocols, a governmental forum of 13 ministries working together to build a state agenda for implementation of the WHO Framework Convention. Dr Santini expressed the great expectation that Brazil has of the meeting outputs, which he indicated will be an opportunity to strengthen an important initiative on crop diversification and alternatives to tobacco growing that has been recently launched by the Ministry of Agrarian Development. Finally, he suggested that the study group could recommend to the Conference of the Parties the inclusion of this theme in its priority agenda.

*Summary results of discussions – Public hearing on agricultural diversification and alternative crops to tobacco (Vera da Costa e Silva)*

11. A public hearing was planned for the day before the meeting in order to ensure that all viewpoints were represented at the event. Statements were welcomed from public and private-sector organizations and institutions, nongovernmental organizations, tobacco farmers and workers associations, as well as the tobacco industry. Twenty submissions were received from the public health sector, 11 from growers, three from government and five from the tobacco industry. Among the opinions expressed, tobacco growers suggested supporting the diversification of crops while maintaining some tobacco output and indicated that programmes for crop diversification should incorporate the knowledge of local communities. Many tobacco growers cautioned against a sudden shift to alternative crops, as it would lead to increased unemployment and poverty. Several nongovernmental organizations and tobacco grower groups expressed concern for tobacco monoculture, contending that this agricultural practice is financially unstable and environmentally unsound. Public health advocates, nongovernmental organizations and some tobacco growers drew attention to the poverty cycle created by debt bondage contracts as well as the health-related risks of tobacco growing. Tobacco industry groups claimed that the industry does considerable work to provide guidelines on child labour, crop safety, crop management and pesticides. Some nongovernmental organizations argued against providing subsidies to those who discontinue tobacco growing or compensating farmers for losses sustained because of dropping tobacco. Tobacco growers

and others indicated that compensation for the voluntary discontinuation of tobacco growing would have a more positive outcome than crop limitation mandates. Throughout the meeting, participants noted that research on possible viable alternatives to tobacco growing needs to be expanded and stimulated by governments, funding agencies and intergovernmental organizations. Discussions also highlighted the fact that the work of the study group will take time, because the issue of crop growing, diversification and substitution will not be resolved quickly.

## **Technical issues related to tobacco growing and alternatives to tobacco growing**

### *Risks associated with tobacco growing (Anne-Marie Perucic)*

12. Tobacco growing represents undeniable risks for health and for the environment, and imposes socioeconomic challenges for farmers. Among the health risks associated with tobacco growing are green tobacco sickness and exposure to dangerous pesticides, tobacco dust and injuries. Tobacco growing can also lead to environmental degradation through deforestation, contamination of water supplies because of pesticide use and soil degradation because of the intensive use of fertilizers. Farmers have little ability to sell their product at the best price because the industry usually decides the value of their leaves without independent verification. Child labour is also suspected to be used in great numbers in tobacco farms because of the high need for labour. However, it is very important for policymakers exploring alternatives to tobacco growing to take into consideration that some challenges faced in tobacco growing are not unique to tobacco. While green tobacco sickness is a problem exclusive to tobacco growing, other problems are not. For example, heavy use of pesticides and fertilizers is common for paprika, cotton, fruit and vegetable crops. Deforestation is also accelerated by soybean production and cattle grazing. In addition, unequal power distribution between farmers and agricultural industries is common when a monopsony structure exists. Research on alternatives to tobacco growing should explore not only the cost-profitability element of other crops, but also their impact on the health of workers and on the environment. Protection of workers' health should be encouraged and facilitated through government assistance and industry enforcement of regulations. Support should be provided to farmers to guarantee the best return for their produce.

### *Crop substitution – Alternative crops for tobacco (John C Keyser)*

13. Agricultural production and marketing begins with the decisions farmers make based on costs and profits, demand for labour, climatic suitability, market access, investment requirements, skills and experience, and production and market risks. Policymakers have additional, macro-level considerations, including national income (trade revenue and taxation); rural income growth, poverty reduction and food security; public health and welfare; environmental sustainability; investment promotion; trade facilitation and standards; and international competitiveness. An examination of four country case studies analysing the financial costs and profits of tobacco shows that tobacco growing in Indonesia, which has upland and lowland tobacco being grown on very small, intensive farms among a diverse range of crops, requires medium input costs and reaps medium profits. In Zimbabwe, tobacco cultivation accounts for 10% of exports and 30% of the gross domestic product. As a large-scale commercial crop, it requires high input costs and produces large commercial profits, however, as a crop, it is highly sensitive to changes in yield price. Tobacco accounts for 40% of Malawi's gross domestic product, with one in five people employed in the tobacco industry. Farm sizes are extremely small and therefore have smallholder costs and profits. In Brazil, the world's second largest tobacco grower, tobacco is cultivated within an integrated framework system that yields one of the greatest returns per day as an agricultural crop. Several crops rival tobacco for total income and attractive returns however most are also expensive, have smaller markets and require special investments. Of the three examples of Brazil's diversification experiences that were presented, each model was a success,

but with limited outreach, due to quality, timing, coordination and delivery. Because tobacco growing generally provides important revenues to the farmers, it can be and has been a driver for diversification activities.

### **Discussions**

14. A question was raised on the potential of genetically modified tobacco for alternative uses. It was noted that evidence so far has shown that genetically modified tobacco has been used especially to the advantage of the industry, to increase the content of nicotine in tobacco leaves or to make them more resistant to disease. Research would be needed on the potential use of genetically modified tobacco leaves for purposes other than consumption through cigarettes and other tobacco products.

15. The issue of alternative uses of tobacco, for nicotine use in nicotine patches or in other pharmaceuticals, or in oil, paint, soap and chemical industries, needs to be explored in more depth. However it is important to keep in mind that the new end product might not retain the high value tobacco leaves have in their current use.

16. A participant noted that the role of subsidies in tobacco growing and tobacco diversification needed to be analysed more extensively, because subsidies make a crop more appealing to farmers.

17. Participants noted the need for more research on a number of issues related to tobacco growing and alternatives to tobacco, for example, the calculation of alternative crop profitability taking into account different scenarios regarding the future profitability of tobacco. Suggestions were also made about integrating the environmental and health costs of tobacco growing when calculating the cost-profitability of tobacco crops. It is also important to compare the hours, days or months of work per year required for tobacco production and production of other crops. Analytical tools need to be fine-tuned in order to account for the social and environmental impact of economic activities on tobacco growing.

### **Work of intergovernmental and international organizations on tobacco growing and alternatives to tobacco growing**

*Food and Agriculture Organization of the United Nations – Tobacco supply, demand and trade to 2010 (presented for Brian Moir by José Tubino)*

18. The Food and Agriculture Organization of the United Nations produced two studies on tobacco in 2003, one contained projections of production, consumption and trade to 2010, and the other comprised studies of selected countries with descriptive and quantitative modelling to determine the impact of a contraction in demand for tobacco on the economies of developing tobacco-producing countries. In the projections study, two scenarios were presented, one which was a continuation of existing policies, and the other considering policies to discourage smoking (including taxes to increase prices by 30% and a drop in producer support by 40% in developed countries and 20% in developing countries). According to the modelling study, a reduction in global demand for tobacco would lead to a loss of income, and adjustments to other crops and industries would be needed in order to minimize economic losses. Although production of tobacco is often favoured over other crops because tobacco is most remunerative, financially less risky and involves skills and investment specific to tobacco, alternatives to tobacco do exist. In Malawi various crops, textiles, and tourism have replaced tobacco cultivation, while in India, crops such as groundnuts and cotton have been successful. Modelling suggests that the economic consequences of a reduction in demand might not be catastrophic, with a 10% fall in demand equivalent to a 1% fall in the gross domestic product in Zimbabwe.

The adjustment to alternative crops or alternate industries requires the identification and development of markets, skill education for producers and investment in new capital.

*Research on tobacco farming: A development issue by Research for International Tobacco Control, International Development Research Centre (Wardie Leppan)*

19. The International Development Research Centre is a Canadian Crown corporation aimed at helping developing country researchers find practical, long-term solutions to the social, economic and environmental problems their countries face. The priority research themes of the Centre's Research for International Tobacco Control programme reflect its emphasis on tobacco as a development issue and tobacco's importance to vulnerable and marginalized populations. The programme is supporting three large, long-term projects on tobacco, in addition to five smaller studies. In Kenya, the potential of giant bamboo to ensure the sustainability of household livelihoods is being assessed through experimental plots while farmers undergo training. There is potential for intercropping and cooperatives have been formed. In Bangladesh, utilizing the collaborative research approach, data analysis techniques are being taught and strategies for diversified food production (including cash crops) are being tested. The third project, which has yet to be finalized, will focus initially on promoting diversification, as opposed to all out substitution, for small tobacco farmers in Malawi. Falling prices, market liberalization for inputs and withdrawal of subsidies for fertilizers have resulted in tobacco farming becoming uneconomical for many in Malawi. The emphasis in this project will be largely on legumes, with special attention to be given to spatial and temporal climate variability. While solutions are often location specific, common approaches and methodologies for developing alternatives exist. To this end, the International Development Research Centre hopes to support a network of researchers in this field to draw out and promote the lessons learnt.

## **Discussions**

20. The representative from the Food and Agriculture Organization noted that given their expertise in the issue, interagency work with the Organization could be strengthened on tobacco growing. Some participants suggested that, in order to move partnership into action, governments at the country level should contact agencies such as the Food and Agriculture Organization to initiate technical cooperation. One example would be to include tobacco in family farmers programmes. In addition, major tobacco-producing Parties to the WHO Framework Convention could introduce this collaborative work to the governing bodies of agencies such as the Food and Agriculture Organization to help initiate concrete work for research and technical cooperation; such work should not require large budgets. The Conference of the Parties could also have a recommendation for representatives of Parties to encourage interagency collaboration by liaising with colleagues who represent their respective governments in the governing bodies of other intergovernmental agencies.

## **Case studies**

*European Commission case study – Tobacco growing in the European Union: Reconversion measures (Johan van Gruijthuijsen)*

21. Among the 27 Member States of the European Union, 14 are tobacco producers. Measures to facilitate reconversion by tobacco growers existed, prior to reforms beginning on 1 January 2006, within the "old" common agricultural policy, the Community Tobacco Fund. The Community Tobacco Fund dealt with two types of projects: information programmes and measures to promote a switch of production or other economic activity. Reconversion measures, implemented by the Member States, included individual measures, which involved participation in buy-back programmes and capped financial contribution at 75% of total costs, and general interest measures, carried out by public

authorities or public research bodies, with funding at 100%. Examples of general interest measures included studies, guidance and advisory services, and conducting of experiments. As of 1 January 2006, the first phase of a reform plan in the tobacco sector has started. Now, in the “new” common agricultural policy, diversification programmes are incorporated into the framework of horizontal rural development measures. Partial decoupling, meaning the unlinking of production and income support, is now compulsory, while full decoupling, or no link between production and income support, is optional. In addition, the reform provides for an increased market orientation and full decoupling from 2010 onwards. The reform foresees an increased role for Rural Development Programmes to facilitate a switch in production. Horizontal rural development measures for restructuring, beginning in 2010, represent an important element and may be seen as the framework in which diversification projects are organized.

*Bangladesh case study – Tobacco cultivation: Who benefits? (Saifuddin Ahmed)*

22. The majority of Bangladeshi farmers are non-registered tobacco cultivators who become caught in debt due to the disappearance of profits when high labour and opportunity costs are accounted for. The use of alternate crops by farmers is not popular due to the difficulty in obtaining seeds to grow vegetables, sourcing a market for the crops and obtaining loans for non-tobacco crops, as well as the perishability of those crops. The inadequate knowledge of alternatives, lack of free inputs and facilities and heavy promotion of tobacco cultivation by tobacco companies also limits the ability of farmers to grow alternative crops. However, the cultivation of alternate crops means many former tobacco growers have a regular sale of vegetables, which can eliminate the need to take out loans for daily need and give growers independence in deciding which crops to grow, where and when to sell them and at what price. Cultivation of alternate crops allows vegetables to be available for family members and waste products to be used as animal feed, and it reduces the impact on the land and significantly reduces labour requirements. It is recommended that loan services specifically targeting low-income farmers be improved and that technical assistance, including demonstration plots, be provided to farmers wishing to switch from tobacco to food cultivation. The provision of marketing facilities and cold storage is recommended, as well as assistance in organic fertilizer production and seed harvesting.

*Brazil case study – A fumicultura no Brasil (Amadeu A Bonato)*

23. In Brazil, 94.5% of tobacco is grown in the south of the country, where tobacco leaves are the second most important exported product. Of all tobacco produced in Brazil, 85% is exported, with major markets that include China, Germany and the United States of America. Most tobacco farmers in Brazil own small pieces of land and 20% of farmers are landless. Production of tobacco is arranged through a system of integrated contracts between farmers and the tobacco industry, in which the industry provides support including guarantees for technical support and buying the product at pre-fixed prices. In 2004, the margin of profit for farmers was 4.5%, while it was 20.8% for the tobacco industry. However, 72% of the farmers’ income came from tobacco growing. Tobacco growing represents many challenges, including a strong tendency among small farmers to rely on only one crop, intensive production of small parcels of land, a quasi inexistence of revenue from non-agricultural sources and low production for subsistence crops (food crops). Among the 79 surveyed farmers who had quit growing tobacco, 40.5% did so because they considered the price too low, 32.9% stopped because of health issues and 25.3% because of a lack of available labour. The study also analysed the Human Development Index from 40 municipalities in the three southern states of Brazil considered to be main tobacco producers and whose main income comes from tobacco production. When ordered according to their Human Development Index rank, these municipalities were placed in the worst position compared to other municipalities from the same state.

24. The study also included the outputs from a national meeting, coordinated by the Ministry of Agrarian Development in Porto Alegre from 12 to 13 February 2007, to discuss the issue of tobacco diversification and alternatives. Major conclusions noted that efforts for diversification and alternatives needed to include the effective participation of state and municipal governments, civil society and agricultural cooperatives. Efforts also need to explore areas of growing that would be consistent with current policy on family agriculture development, cooperative society, the criteria of sustainable development and the work of family farmers. Growing also needs to be environmentally friendly and take into account the local and territorial potentialities. The institution of a national fund, through a special contribution from the tobacco sector (Contribution for Intervention in Economic Domain),<sup>1</sup> would be important to support such activities.

*China case study – On alternative crops to tobacco in China (Hongqi Yang)*

25. Tobacco cultivation in China has contributed greatly to an increase in peasant income, with 3.63 million peasant households growing tobacco annually. Tobacco has become the main production activity that can guarantee a stable family income for local peasant farmers and absorb surplus rural labour, and 7.26 million people are directly involved in leaf tobacco production. In 2005, the total income for tobacco growers was 20.74 billion yuan, and local governments collected 4.15 billion yuan in special agricultural taxes. This special tax on tobacco leaf has been playing a very important role in supporting the development of local economies. With regard to crop substitution, potential alternatives to tobacco growing include oil crops, cotton, vegetables, tea, fruit trees and medicinal plants. Poultry and herds are also among the alternative options to tobacco growing.

*India case study – Case study of tobacco cultivation and alternative crops in India (presented for Vinayak Prasad by Shoba John)*

26. Annual tobacco production in India is nearly 700 million kilograms, making India the third largest tobacco producer in the world. Tobacco cultivation involves six million farmers, 20 million farm labourers, 4.4 million workers within the bidi industry and 2.2 million tendu leaf collectors. Per annum, US\$ 293 million is earned from exports in foreign exchange, which accounts for 4% of agricultural exports, and the tax on manufactured tobacco products equals US\$ 1.778 billion, per annum. Sample agricultural studies have revealed economically feasible alternative crops to tobacco for various states, soils and climatic types. Interventions in Karnataka, a bidi-tobacco growing region, involved intersectoral meetings with farmers, agricultural scientists, motivators and bankers. An educational campaign among farmers took place, as well as the provision of high-quality seeds for alternate crops, and credits were made available to farmers for non-agricultural activities. These interventions resulted in a 50% reduction in the land utilized for tobacco production within one year. The following year, the reduction in land use dedicated to tobacco fell to only 15%, attributable to a lack of sustained financial assistance and institutional support. In the Gujarat experience, intercropping with cotton yielded higher net return per hectare, and drought-forced diversification in Andhra Pradesh resulted in viable food crop alternatives, which involved a lower cost of cultivation. In summary, major deviations from culturally settled agricultural practices requires a broad-scale intervention, with the intervention itself needing to cover a significant percentage of farmers. Institutional support mechanisms also need to be sustained until alternative practices to tobacco cultivation stabilize.

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<sup>1</sup> The Brazilian Constitution does not allow for the specific allocation of taxes collected on products. The only possibility of having specific funds for tobacco control comes from enforcing legislation that establishes an obligatory contribution from the tobacco sector: the Contribution for Intervention in Economic Domain – tobacco. There is already a precedent for this kind of contribution, for example, from the fuel sector, whose Contribution for Intervention in Economic Domain resources are dedicated to finance environmental protection projects and to maintain roads.



*Kenya case study – Case study on tobacco cultivation and possible alternative crops (Samuel Ochola)*

27. In the Kenya case study, 43 farmers were interviewed in relation to their experiences of shifting to alternative crops, including pineapples, passion-fruit, soybeans, watermelon and peppers; farmers grew up to three different commercial crops as a cushion against income risk. Factors that helped them shift to alternative crops were “demand factors” such as the market availability of alternative crops, farmer support provided by international development agencies and the government, and the cancellation of tobacco-farming contract agreements by the tobacco companies. Benefits reported included higher income, fewer labour requirements and increased soil fertility. However, tobacco farmers are able to access farmer support services and receive agricultural credit in kind, while none of the farmers producing alternative crops reported receiving credit. All of the interviewed tobacco farmers indicated a willingness to shift to alternative crops, with 90% stating they would shift immediately. Study recommendations included increasing access to agricultural credit, enhancing access to agricultural information, strengthening existing governmental institutions that provide agricultural extension support and forming additional commodity-based cooperatives to assist with marketing and farm input purchases. Alternative crops to tobacco based on climate and type of soil need to be identified. In addition, the institution of a programme to make farmers aware of the problems associated with tobacco farming and to assist them in shifting to the production of alternative crops with higher returns is needed. Farmers’ technical knowledge, as well as the marketing infrastructure for the alternative crops, must also be improved.

**WORKING GROUP DISCUSSIONS AND RECOMMENDATIONS**

28. Three working groups, comprised of 15 to 20 participants each, were formed to discuss the main issues that will help move forward the work of the study group and to assess the need for improved knowledge and evidence on the issue of crop diversification and alternatives to tobacco growing.

29. The themes for the groups were as follows:

- (a) working group 1: research needs on issues related to tobacco alternatives and crop diversification;
- (b) working group 2: social and economic challenges for tobacco alternatives and crop diversification;
- (c) working group 3: potentials for alternatives to tobacco and crop diversification.

30. After deliberations of an hour and a half, the rapporteur of each group presented to the plenary session a summary of the discussions made by the group. (More detailed summaries of the discussions of the working groups are attached to the report at Annex.)

**Working group 1: Research needs on issues related to tobacco alternatives and crop diversification**

31. The working group highlighted that existing research is not sufficient to address or guide individual Parties on crop alternatives and diversification. There is a huge research gap that needs to be filled related to the health effects of tobacco growing (green tobacco sickness, in particular), the testing of cotinine presence in farmers and the environmental (deforestation, toxicity, soil depletion, etc.) and socioeconomic (child labour, opportunity cost of tobacco growing, etc.) impacts of tobacco growing.

32. The working group defined the different rudiments that need to be taken into account when designing research on crop alternatives and diversification. First, all existing research must be compiled to help formulate next steps. Subsequently, research should be done in a comprehensive way and should comprise all elements linked with tobacco growing, including profitability, but also its health, environmental and socioeconomic costs. The quality of life that farmers have with the production of different crops should be quantified and included in the analysis, and the issue of development and poverty alleviation needs to be taken into account. In addition, the demand for and market size of tobacco and alternative crops need to be compared. Tobacco and potential alternative crops need to be closely compared with respect to the same agronomic and economic parameters. Research should privilege crops grown without chemicals and those that are non-toxic and environmentally friendly.

33. Decision-makers need to be actively involved in the work of researchers. International organizations should also be encouraged to provide technical support for country-level research.

34. Research should explore the comprehensive use of tobacco leaves, including their use for purposes other than currently consumed tobacco products.

35. The methodology of work needs to be standardized to facilitate comparisons on results within and among Parties. Even if alternatives to tobacco tend to be highly country or region specific, research agendas should develop a general analytical framework aimed at providing policy guidelines for the implementation of crop diversification and substitution programmes in developing country Parties.

36. All of the research needs to be linked with the WHO Framework Convention interventions in order to achieve comprehensive results and outcomes.

## **Working group 2: Social and economic challenges for tobacco alternatives and crop diversification**

37. The working group first defined the factors facilitating tobacco growing. Those include the price stability of tobacco, the credit facility and technical support provided to tobacco farmers, particularly by the tobacco industry, the high revenue from tobacco per hectare even from small farms, and the low cost of labour provided by the families of farmers. The existence of integrated market support systems and management provided by the tobacco companies from the growing phase to the marketing phase is also a very important factor facilitating, and sometimes encouraging, tobacco growing.

38. The socioeconomic challenges for crop alternatives and substitution, as identified by the working group, were used as the basis for defining the recommendations below.

### **Recommendations to the Conference of the Parties**

39. The working group recommends that the Conference of the Parties consider issues related to existing international funds and subsidies for alternatives to tobacco, within the setting of a wider, horizontal context, and monitor industry activities interfering in the process of diversification. Within the framework of these activities, the working group recommends that the Conference of the Parties consider the possibility of continuing the work of the study group on alternative crops.

### **Recommendations to the United Nations and other intergovernmental organizations**

40. The working group recommends that organizations of the United Nations system, in collaboration with the Conference of the Parties, undertake global comparative research on the marketability and profitability of various crops.

41. Discussions on development and trade and the shift of production to developing countries, including discussions on the role of transnational tobacco leaf companies in this global trend and the trend's impact on the sustainable development of developing countries, should be placed on the agenda of the World Trade Organization. The working group also recommends that the United Nations Ad Hoc Interagency Task Force on Tobacco Control, the Food and Agriculture Organization of the United Nations and the World Bank create a wider forum to discuss and provide support to the work of the study group. And it recommends that WHO and other organizations from the Task Force encourage large private institutions or foundations to include the issue of alternatives to tobacco production in their agendas to support sustainable development.

### **Recommendations to governments**

42. Government agencies are recommended to closely monitor the activities of the tobacco industry in order to prevent the exploitation of farmers. The working group also recommends educational programmes for farmers to help raise awareness of the impact of tobacco growing on health and the environment. In addition, integration of crop diversification initiatives should be coordinated with other existing governmental programmes, including poverty alleviation, food security and rural development, and pilot projects should be developed regionally and the experiences shared. In those projects, governments should help guarantee logistics, incentives, financial-risk reduction and market access for alternative crops. The projects should also include cooperative systems that protect agro-ecology and focus on development.

### **Working group 3: Potentials for alternatives to tobacco and crop diversification**

43. The working group noted that many viable alternatives to tobacco do exist, but the right solution depends on the farmer's individual needs and objectives, the specific location of cultivation, local market access, the availability of infrastructure and many other practical considerations.

44. In exploring alternatives to tobacco growing, the focus should be on small farmers, rather than large farmers who are more capable of making new investments on their own. Success in finding good alternatives depends on many factors, which may include: (1) access to roads and other public infrastructure; (2) irrigation; (3) proximity to markets; (4) cash flow considerations and long-term finance for perennial crops; (5) availability of technical assistance; (6) access to special inputs and skills; and (7) seasonal finance.

45. It may be useful to categorize crops according to various criteria (such as labour, costs, profits and special requirements) to help identify which ones best meet different farmer's individual needs. This could be done at a macro-level, but would also require fine-tuning for each country and perhaps also for different locations within a country. An analysis of the profitability of crops should also consider the regularity of incomes, the imputed value for food crops for home consumption and the availability of free time to work on other enterprises. The successful transition away from tobacco will likely require several new products to emerge as competitive alternatives alongside tobacco, rather than growth in just one or two new crop sectors.

46. Other issues that need to be taken into account to guarantee the selection of viable alternatives include the availability of cash crops, the sustainability of the crops proposed (such as being environmentally friendly, ensuring a certain quality of life and providing food crops), their seasonality and the availability of processing facilities. Non-farm opportunities also need to be explored.

47. More research on the international tobacco markets needs to be done in order to understand long-term market prospects for this crop and how alternative ones would compete.

48. It would be useful to develop a toolkit for policy analysis based on farm-level financial considerations and other social objectives that can be used to assess crop diversification opportunities.

49. Dialogue and awareness-raising need to be initiated with policymakers at all levels of the government to ensure the best implementation of tobacco-alternative policies at the Party level.

## **Conclusions**

50. The discussions of the working groups were summarized (see Annex) for presentation at the second session of the Conference of the Parties in order to help define, during the session, the next activities to be undertaken by the study group in order to move its work forward in the future.

## ANNEX

**Summary of the discussions of the working groups<sup>1</sup>****WORKING GROUP 1: RESEARCH NEEDS ON ISSUES RELATED TO TOBACCO ALTERNATIVES AND CROP DIVERSIFICATION**

1. Existing research is not enough to address or guide individual Parties on crop alternatives and diversification. There is an enormous research gap, particularly in the following areas:
  - (a) *Health effects of growing tobacco*: Green tobacco sickness has not been examined in countries thoroughly. Although farmers around the world who grow tobacco face this disease, country-level evidence is also needed.
  - (b) *Technical capacity of researchers in developing countries*: This capacity is not adequate, especially with regard to the availability of laboratories that can examine cotinine tests among farmers.
  - (c) *Consequences to the environment of growing tobacco*: Deforestation, toxicity, soil depletion and other environmental consequences need to be addressed through research that compares tobacco to alternative crops.
  - (d) *Socioeconomic factors that should be taken into consideration*: The working group believes that specific attention should be given to child labour and the opportunity cost of growing tobacco, for women as well as children.
2. The team discussed how to design research and made the following suggestions:
  - (a) Research should evaluate crop diversification and alternatives using a comprehensive view. In other words, the profitability, health impact or social factors should be examined for alternative crops, not only for tobacco. And when research is designed, other sectors, such as health, economics and environmental sectors, should be included.
  - (b) It is important to keep decision-makers involved and informed about the project from the beginning. Their involvement in the research should be welcomed to enable them to take ownership of the project.
  - (c) Financial outcome analyses, such as the profitability of tobacco compared with other crops, are important tools. However, the quality of life that farmers have with the production cycles of different crops should be quantified and included in the analysis.
  - (d) Research should take the following three important aspects of diversification into consideration:

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<sup>1</sup> The time for discussion of the ideas put forward by the participants of the working groups was limited. It is therefore too early to assume that these discussions have received overall agreement from the group, nor can they be considered as final recommendations from the study group.

- i. The development and poverty alleviation perspective of crop diversification and cultivation should be addressed.
  - ii. The demand for, as well as market size of, tobacco products and alternative crops should be examined. Research should take into consideration local economic, market and environmental characteristics and tailor the decision or recommendation according to local farmers' needs.
  - iii. Research should privilege, as pilot projects, the planting of research units "in loco" without the use of chemical inputs or agro-toxic pesticides, in order to obtain alternative sustainable-production references that do not reproduce the existing technologic production model of tobacco growing.
3. Regarding the issue of diversification, when analysing the barriers to diversification, it is important to take into account the disparity between the notion of diversification adopted by the tobacco industry and the one supported by tobacco control advocates. In the first case, diversification is merely seen as a mechanism of subsistence for small farmers engaged in tobacco cultivation in order to complement family income. The focus of such actions relies particularly on production aimed at personal consumption. The demand for family labour in tobacco farming is extremely high and there is no interest from the industry to promote diversification by including other crops that may occupy too much family labour in a small property. In the second case, diversification is regarded as a stage in the process of eventually moving away from tobacco farming. Consequently, it seeks to identify alternative cultivations that may provide the small farmer with a family income either equal to or higher than one provided by tobacco. Considering these differences can help shed light on the complexity associated with the design and implementation of policy intervention schemes.
4. In order to compare results within and among countries, methodology should be standardized and the data should be available for comparison. It is important to act now to prepare farmers, civil society and decision-makers to incorporate long-term changes in demand. Transferring production location within and among countries is common practice that the industry employs. Therefore, it is advisable to prepare plans and programmes for diversification first, then move towards substitution.
5. While there is a growing consensus that alternatives to tobacco farming exist, they tend to be highly country or region specific. However, it is also true that research should include an emphasis on the development of a general analytical framework aimed at providing policy guidelines for the implementation of crop diversification and crop substitution programmes in developing country Parties. In this sense, the comparison of existing research (and particularly country case studies) would shed light on the main dimensions and key factors that shall be taken into account for providing feasible policy recommendations. Moreover, this analytical framework should focus on both the micro-level factors (factors, such as profitability, markets and technical assistance, that shape farmers' decisions regarding alternative crops to tobacco) and the macro-level factors (such as agro-climatic constraints, farming systems, land structure and financing policies).
6. Existing studies must be compiled in order to formulate next steps.
7. The United Nations and other intergovernmental, nongovernmental and international organizations should provide support for country-level research so that the evidence may be gathered efficiently. Pilot projects should be encouraged, and technical support and rural extension services need to be provided in these projects. There should be sound social and economic evidence on the

justification for suggested alternative crops. Parties should be aware of not only domestic, but also international, demand and supply changes.

8. Research must be linked with the WHO Framework Convention interventions for comprehensive results and outcomes.

9. Finding viable alternatives to tobacco is a complex issue and it needs to be discussed thoroughly. However, these suggestions should be considered as a beginning for this important research and should stress the importance of developing crop diversification programmes within micro- and macro-programme guidelines.

## **WORKING GROUP 2: SOCIAL AND ECONOMIC CHALLENGES FOR TOBACCO ALTERNATIVES AND CROP DIVERSIFICATION**

10. Factors facilitating tobacco growing include the following:

- (a) most tobacco growers live in developing countries and are part of socially and economically vulnerable groups in rural areas;
- (b) most tobacco growers are small farmers that grow tobacco in small lands;
- (c) tobacco returns high revenue per hectare;
- (d) tobacco can be grown in unfavourable soils and climates;
- (e) production costs are optimized by using the families of farmers, including women and children, for labour;
- (f) the price of tobacco is stable;
- (g) tobacco is a high-value agricultural commodity;
- (h) tobacco industry intermediation facilitates access to credit for tobacco farming;
- (i) tobacco companies provide integrated market support systems and management from the growing phase to the marketing phase;
- (j) technical support is available, particularly from the tobacco industry;
- (k) the tobacco industry may have influence on regional policymakers and legislators, and on the regional agricultural policy;
- (l) governments may provide subsidies to the tobacco industry, for example, in tax exemptions.

11. These aspects should be taken into consideration when promoting the development of tobacco alternatives.

## Recommendations to the Conference of the Parties

12. The working group developed the following recommendations to the Conference of the Parties:
  - (a) consider issues around existing international funds, programmes and subsidies for alternatives to tobacco, while placing diversification in a wider, horizontal context;
  - (b) in keeping with Article 5.3 of the WHO Framework Convention, monitor tobacco industry strategies to unduly interfere in the process of diversification;
  - (c) consider the possibility of continuing the work of the study group on alternative crops and include it as an activity to be funded by the Conference of the Parties budget.
13. The working group developed the following recommendations that the Conference of the Parties may wish to make to the United Nations and other intergovernmental organizations:
  - (a) undertake global comparative studies to show the marketability and profitability of various crops;
  - (b) urge the World Trade Organization to include the issue of alternatives to tobacco growing on its sustainable development agenda, focusing on the globalization process as a catalytic element that provokes the shift of tobacco cultivation from developed countries to developing ones, the role of transnational tobacco and leaf companies in doing so, and the impact of this process on the sustainable development of developing countries;
  - (c) recommend that the United Nations Ad Hoc Interagency Task Force on Tobacco Control, the Food and Agriculture Organization of the United Nations, the World Bank, the International Labour Organization and the World Trade Organization create wider forums to discuss the products of the study group;
  - (d) recommend that WHO and other organizations from the United Nations Task Force encourage large private institutions or foundations that support sustainable development projects to include the issue of alternatives to tobacco production on their agendas.
14. The working group developed the following recommendations that the Conference of the Parties may wish to make to the Parties:
  - (a) help address the industry exploitation of farmers, monitor closely tobacco industry activities;
  - (b) focus educational programmes for farmers on creating awareness of the impact of tobacco growing on the health of farmers and their families and on the environment;
  - (c) identify and curtail subsidies that promote tobacco production, and redirect the funds to diversification and rural development activities;
  - (d) encourage internal consistency between departments, regarding policies discouraging tobacco cultivation;
  - (e) identify and encourage crops that could use hand labour and current tobacco cycles;



- (f) guarantee logistics, incentives, financial-risk reduction and market mechanisms for alternate crops being considered so that there is net profitability for the farmers;
- (g) encourage cooperative systems that protect agro-ecology and focus on community development;
- (h) integrate crop diversification initiatives with other existing governmental programmes, such as poverty alleviation, food and nutritional security, and rural development;
- (i) involve farmers in decisions on alternate crops and livelihood options;
- (j) conduct pilot experiments regionally;
- (k) disseminate the results of pilot experiences in tobacco crop substitution and diversification;
- (l) stimulate local consumption of viable alternative crops through community fairs;
- (m) provide education to farmers on the impact of tobacco growing and on switching to other crops, in addition to offering alternatives to tobacco.

### **Research priorities**

15. It is important to develop standardized methodologies to compare the profitability of various crops across time. Research on alternative crops needs to take into account soil types, markets and climatic conditions when considering alternatives, and regional analysis is critical to understand the suitability of crops to specific localities, climates and soils.
16. Research is needed to explore the comprehensive uses of tobacco leaf, including its use for purposes other than the currently consumed tobacco products (alternatives to alternatives).
17. Any research on tobacco demand should include the impact that innovation in tobacco product manufacturing, such as the introduction of additives, looser packing, reduction of waste and genetically modified tobacco, has on a reduction in the demand for tobacco leaf at the industry level.

### **WORKING GROUP 3: POTENTIALS FOR ALTERNATIVES TO TOBACCO AND CROP DIVERSIFICATION**

18. Many viable alternatives do exist for tobacco, but the right solution depends on the farmer's individual needs and objectives, the specific location of cultivation, local market access, availability of infrastructure and many other practical considerations.
19. The focus of the discussion should be on small farmers, who require additional assistance to adopt new activities, rather than large farmers, who are more capable of making new investments on their own.
20. Success depends on many factors. Depending on the commodity, these include: access to roads and other public infrastructure, irrigation, proximity to markets, cash flow considerations and

long-term finance for perennial crops, availability of technical assistance, access to special inputs and skills and seasonal finance.

21. Seasonality is a particularly important consideration for agriculture and may offer farmers specific opportunities to supply deficit markets.

22. It is important to look for other cash crops, rather than recommend a return to subsistence production (although a successful commodity may still be a food product).

23. The concept of sustainable livelihoods is an important consideration in recommending crop substitutes. This relates to the trade-offs between cash crop and food crop production and also to the environmental sustainability, quality of life and other considerations not readily captured by mainstream economic analysis.

24. Organic crops that do not require chemical treatment may be attractive from a cost and farmer-health perspective, but will require specific certification to truly be regarded “organic” and capture potential price premiums.

25. There is a need for more research on the international tobacco markets to understand long-term market prospects for this crop (for example, price trends and quantities of tobacco, not just numbers of smokers).

26. The availability of processing facilities is often important for new products to emerge, but this does not necessarily mean large-scale industrial development – simple, local technologies can also be attractive and should not be overlooked.

27. It is important to open a dialogue with policymakers on crop alternatives. This is especially true at the local level, where government officials may not understand the reasons (or potential) for introducing new crops and can easily forestall crop substitution.

28. The development of crop alternatives may require someone to champion the new value chain who is able to mobilize groups of farmers and address practical value development considerations such as the identification of new markets, the procurement of special inputs, logistics and export permits. This is true at the local, regional and international market levels, alike.

29. Successful transition away from tobacco will likely require several new products to emerge as competitive alternatives alongside tobacco, rather than growth in just one or two new crop sectors.

30. Growth in other economic sectors is also important to create alternative opportunities outside of agriculture (non-farm opportunities).

31. It may be useful to categorize crops according to various criteria (such as labour, costs, profits and special requirements) to help identify which crops best meet different farmers’ individual needs. This could be done at a macro-level, but would also require fine-tuning for each country and perhaps also for different locations within a country.

32. Crop profits should not be measured by high cash income only, but should also include consideration of how regular that income is, the imputed value of food crops for home consumption and the availability of free time to work on other enterprises. This leads quickly to the need for

indicative farm modelling to identify more comprehensive diversification strategies based on combinations of new enterprises.

33. Traditional crop budget analysis is still a useful way to identify potential areas of growth as a starting point for more comprehensive recommendations and investment planning. It would be useful to develop a toolkit for policy analysis, based on farm-level financial considerations and other social objectives, that can be used to assess crop diversification opportunities.

34. These analytical tools should be complemented with alternative criteria focused on sustainable livelihood objectives and other criteria of social importance.

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