

Tobacco Control Social Impact Bond



(T-SIB)

*For Economically Viable and
Environmentally Sustainable Livelihoods*



AT A GLANCE

This proposal is for the world's first social impact bond on tobacco control (T-SIB).

The T-SIB is an innovative finance mechanism under development that aims to assist smallholder tobacco farmers in Zambia transition to more profitable and sustainable livelihoods which also better protect their health and well-being. Expected outcomes include 7,360 farmers transitioned away from tobacco growing; a 70 percent increase in household resources of small-holder farmers who transition; 17,000 hectares of protected forests; avoided sickness associated with handling tobacco leaves; and reduced child labour. We call on outcome payors and investors to engage in developing a model results-based instrument that will disrupt tobacco-growing traps for farmers and be replicable worldwide in generating desirable social, economic and environmental impact.

Why transition from tobacco cultivation? Tobacco cultivation harms farmers' health; drives deforestation; pollutes water, soil, and air; and is associated with child labour and poverty. Many tobacco farmers earn poverty wages and are trapped in exploitative contracts.

If tobacco cultivation causes so many problems, why do farmers continue to grow it?

Many tobacco farmers lack viable alternatives, or the capital required to switch. Independent farmers (most operate and sell independently) are often 'locked' into long-term contracts with tobacco companies – and the terms of these contracts are not favourable to the farmers.

Can alternative livelihoods programmes be successful?

Alternative livelihoods programmes that are led or assisted by the United Nations have demonstrated success in major tobacco-producing countries, such as Bangladesh, Brazil, Kenya and Zambia. Most tobacco farmers want to leave tobacco cultivation behind and switch to alternative crops and livelihoods if assisted with viable crop selection, easy access to inputs, extension and marketing services, crop protection and stable product prices. Access to education, training and skills development are also needed.

Why a social impact bond?

Alternative livelihoods projects need to provide tobacco farmers a complete range of services: from inputs, training, farm and market education, to credit and insurance. The comprehensive nature of such interventions requires large upfront investments, and low-income countries often do not have the required resources. Aid investments in alternative livelihoods programmes have also been insufficient relative to need.

Why are alternative livelihoods for tobacco growers an excellent candidate for a social impact bond? Social impact bonds require robust metrics to measure successful performance. Success in alternative livelihoods can be measured both quantitatively and qualitatively; for example, the increase in the numbers of farmers trained and employed in alternative livelihoods, the reduction in the number of hectares devoted to tobacco crops, the increase in farmers' incomes, and improved health of farmers and their families, reduced waste and pollutants, and reduced rates of deforestation. Cost savings can also be estimated by the reduced costs linked to the overall health or disease burden of farmers and their families, social welfare costs and productivity losses. To capture the range of impacts, the T-SIB will demonstrate outcomes over a seven-year period.

What is the value proposition to funders? The world's first social impact bond applied to tobacco control will provide partners with an opportunity to pioneer financial approaches for sustainable development. The T-SIB would unlock and frontload new capital for important social, economic and environmental interventions. As a results-based financing model, the T-SIB will also shift focus onto outcomes. Outcome funders only pay if results are achieved, thus eliminating risks associated with programme delivery. The T-SIB model also provides for the involvement of multiple stakeholders and partners.



Photo by Doug Badcock

ALTERNATIVE LIVELIHOODS TO TOBACCO

An accelerator for the **SDGs**

*In addition to helping countries achieve their commitments under **Sustainable Development Goal 3** on ensuring healthy lives and well-being for all, supporting alternative livelihoods will advance other SDGs including by reducing poverty and inequalities, increasing food security, providing better and more sustainable employment, and by mitigating the negative environmental impact of tobacco production.*

SDGs impacted by the T-SIB:



HOW WOULD THE T-SIB WORK?

What are the target group and areas? The T-SIB will target small-scale farmers growing tobacco in Zambia with a focus on the Western, Eastern and Southern areas, where Virginia tobacco production is prominent.

What is the implementation period? The implementation period will be seven years with four years of intensive interventions, including transitioning farmers each year, followed by three years of less intensive support and monitoring to sustain the transition.

What is the proposed intervention strategy? Proposed interventions will build on previously successful models providing farmers with viable alternative livelihoods and capital to support their transitions. The T-SIB initiative will promote ‘Farming as a Business’ to encourage diversification from tobacco production. This approach encourages farmers to consider all of their resources while planning to maximize these resources through crop production, marketing, and other activities. This approach goes beyond simple crop substitution and helps small-holder farmers develop longer-term plans.

Interviews with tobacco farmers in Zambia indicate that key constraints to shifting to more viable livelihoods are lack of inputs, credit, marketing, and information and product aggregation services. The T-SIB will finance intervention models that deliver access to these resources and services through:

- 1) an integrated model, whereby one or a few organisations provide inputs and services, receive the farmer’s final product, and provide additional value -and supply-chain services, and or
- 2) a market facilitation model, whereby organisations are financed to move into new areas and provide extra services to clients in their existing areas.

The T-SIB will likely finance interventions using both models in different areas of Zambia,¹ phasing in support to farmers over several years. Both models require a wide range of expertise, and require that operations be completed at multiple levels to ensure sustainable diversification from tobacco production. Cooperation of several service providers coordinated through an experienced intermediary/project manager is crucial. The T-SIB will adopt the implementation model under Appendix A.

¹ The Eastern province has the advantage of the presence of significant private sector integrated operations, such as COMACO and Good Nature Agro. Western and Southern provinces have fewer existing outgrower schemes, but are covered by market facilitation organisations (iDe, Musika, Winrock) and large-scale extension support services (CFU).

NUMBER OF FARMERS GROWING FLUE-CURED VIRGINIA TOBACCO PER DISTRICT

TBZ 2018 Data





What are the expected results? The T-SIB financed interventions aim to reach most smallholder tobacco farmers in ten districts, and successfully transition 80% of all farmers reached. This is a conservative estimate based on local evidence of other conservation schemes. Expected outcomes of transitioning a total of approximately 7,360 farmers away from tobacco include:

- 50 percent reduction in the number of smallholder farmers in tobacco production across Zambia;
- 50 percent reduction in hectares under smallholder tobacco cultivation across Zambia;
- 70 percent increase in household resources for farmers who adopt alternative livelihoods;
- 17,000 ha of forest protected;
- US\$12.6 million in financial benefits through increased household resources and forest protection; and a
- maximum internal rate of return to investors of 11 percent after 7 years.

Other benefits that are more difficult to measure but could be evaluated and monetized as well include:

- increased food security due to diversified crop production;
- reduced rates of green tobacco sickness because farmers are no longer handling tobacco leaves;
- reduced child labour as alternative crops are much less labour intensive; and
- environmental benefits through water protection, reduced waste generation and chemical use.



What are the outcome indicators and payment metrics? The primary outcome indicator for the project will be ‘number of target population transitioned from growing tobacco to growing alternative crops or pursuing other livelihoods that are equally or more profitable.’ The estimated financial benefits associated with reductions in tobacco cultivation are \$273,32 per hectare, as measured under the secondary outcomes of the T-SIB which include:

- 1) increases in household resources and profitability from alternative economic activities, estimated to be US\$116.48 per hectare;²⁺³ and
- 2) reductions in deforestation and increased carbon sequestration valued at US\$156.84 per hectare⁴.

How will the T-SIB monitor and evaluate results? A historical baseline methodology is recommended to assess the achievement of primary and secondary outcomes before, during and after the interventions funded by the T-SIB. The success of the primary outcome will be measured through the total hectares of tobacco cultivated by farmers before and after the intervention. Secondary outcome indicators are attributable to the achievement of the primary indicators and will support the cost-benefit analyses and evaluation of the T-SIB. These can be measured as well.

Alternatively, the T-SIB can also use an outcomes tariff which pays a fixed amount for every hectare of land converted from tobacco cultivation to alternative, more productive uses. To mitigate for outcomes that would have occurred regardless of an intervention using an outcomes tariff methodology, outcomes payments would be structured to be lower than cost savings.

2 Goma F, Labonté R, Drope J, Li Q, Zulu R, Kangwa E. 2019. The Economics of Tobacco Farming in Zambia: Tobacco Farmers Survey Report 2019. Atlanta: American Cancer Society and Lusaka: University of Zambia.

3 To measure farming households’ economic situation, Goma et.al employed a survey that considers assets that the household produces for home consumption which are not sold. These assets are considered alongside other household financial costs, such as agricultural inputs or school fees, and other revenue streams, such as earned wages or produce sold, to assign an appropriate value to the household’s broader economic production.

4 To estimate the cost of deforestation caused by tobacco farming, we used the World Bank estimate on the social cost of carbon, which is US\$10 per US ton. According to Geist (1999), 0.3705 hectares of forest are cleared for every tonne of tobacco produced. From Food and Agriculture Organization (FAO) data, tropical forests can sequester 3.2 metric tonnes of carbon per hectare per year. When the US\$10 per ton price is converted to metric tonnes and is multiplied by the volume of carbon diverted per tonne of tobacco produced, the negative cost of tobacco production is valued at US\$130.70 per metric tonne, which translates into US\$156.84 per hectare. It is assumed here that land is protected from deforestation by the project for ten years.

What financing is required? A seven-year T-SIB requires approximately US\$8.15 million in upfront capital and US\$10.4 million as outcome payments. Estimated investors' internal rate of return will be a maximum of 11 percent per annum. Costing is based on similar alternative livelihoods projects in Zambia. During the first four years, the required capital for interventions is US\$805 per farmer reached, whereas during the following less intensive three years, supportive interventions, monitoring, and evaluations would require US\$250,000 per year (see table on next page).



Predicted outcomes and investment returns for the Tobacco Social Impact Bond

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL
Total number of farmers who transition	1,280	4,160	6,560	7,360	7,360	7,360	7,360	7,360
Financial benefit per year (US\$)	\$391,831	\$1,273,451	\$2,008,135	\$2,253,029	\$2,253,029	\$2,253,029	\$2,253,029	\$12,685,533
Cost of intervention (US\$)	\$1,288,000	\$2,898,000	\$2,415,000	\$805,000	\$250,000	\$250,000	\$250,000	\$8,156,000
Outcome payments to investors (US\$)	\$0	\$391,831	\$1,273,451	\$2,008,135	\$2,253,029	\$2,253,029	\$2,253,029	\$10,432,504
Net investor cash flows (US\$)	-\$1,288,000	-\$2,506,169	-\$1,141,549	\$1,203,135	\$2,003,029	\$2,003,029	\$2,003,029	\$2,276,505
Maximum IRR to investor, percent							11%	

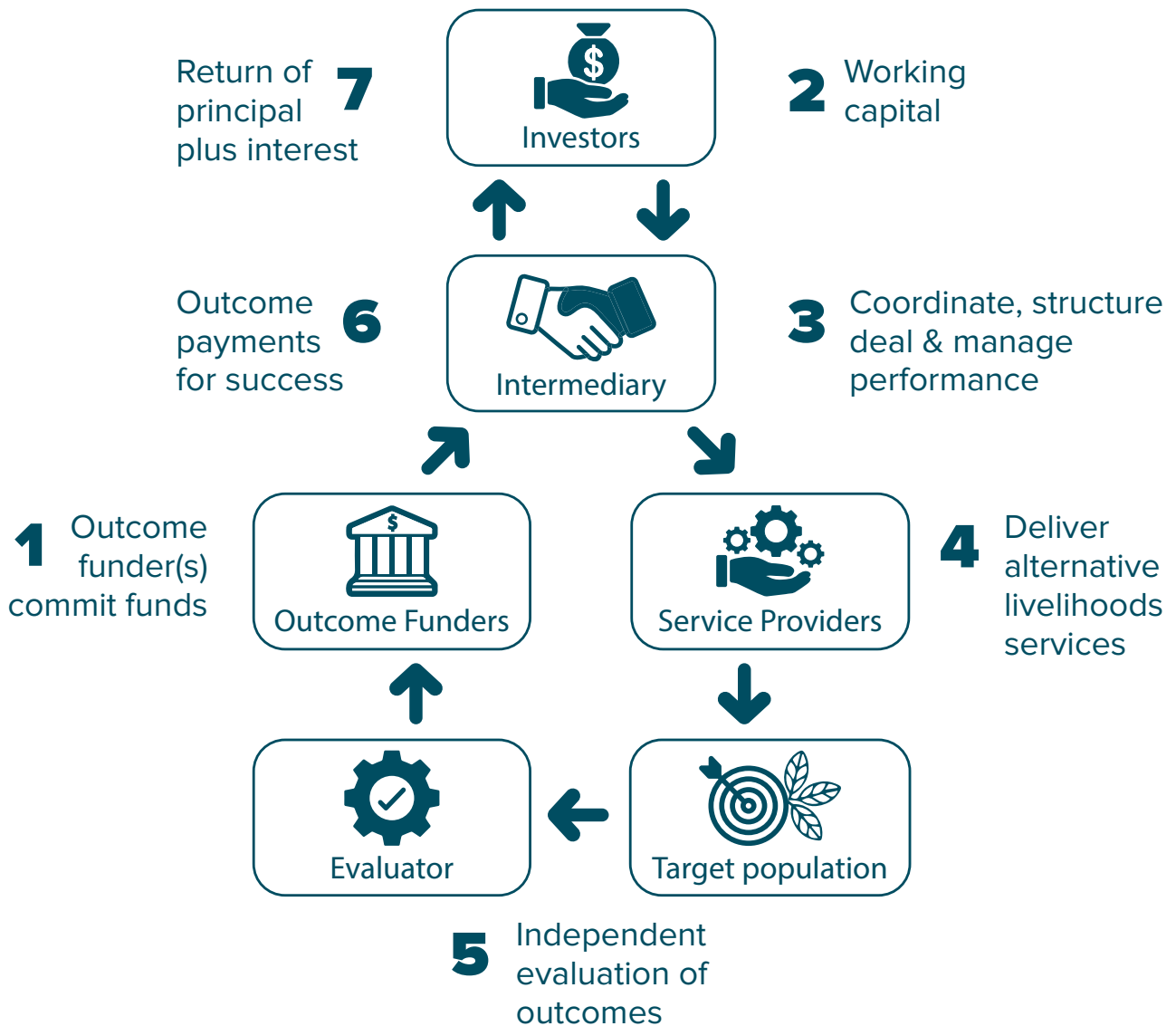
Abbreviations: IRR, internal rate of return.

Breakdown of financial benefits by year*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL
Increased farmer incomes	\$166,987	\$542,707	\$855,807	\$960,174	\$960,174	\$960,174	\$960,174	\$5,406,198
Carbon sequestered	\$224,844	\$730,744	\$1,152,327	\$1,292,855	\$1,292,855	\$1,292,855	\$1,292,855	\$7,279,337
Total financial benefits	\$391,831	\$1,273,451	\$2,008,135	\$2,253,029	\$2,253,029	\$2,253,029	\$2,253,029	\$12,685,535

*does not include additional benefits such as reduced child labour, improved health and productivity, improved food security and other environmental benefits.

HOW A SOCIAL IMPACT BOND WORKS



- 1** Outcome funder(s) commit funds over 3-4 years
- 2** Investors commit working capital upfront (annually)
- 3** Intermediary finalises design and contracting
- 4** Service providers deliver alternative livelihoods interventions
- 5** Outcomes measured and verified independently
- 6** Achievement of outcomes triggers payments to investors
- 7** Intermediary provides payments plus return to investors

UNDP AS A PARTNER OF CHOICE

The UNDP works in more than 170 countries and territories worldwide

UNDP supports countries to implement the 2030 Agenda for sustainable development. As part of its efforts to help countries achieve the 2030 Agenda, UNDP works intensively in partnership with local and international partners to help countries mitigate the harm caused by the production and use of tobacco. To help countries access innovative development finance, UNDP has developed – and is implementing – several social impact bonds across the health, environmental and alternative livelihoods domains. UNDP can help identify promising countries for the T-SIB approach, convene local and international partners in a dialogue around alternatives to tobacco cultivation, support T-SIB design and implementation, share lessons learned and support policy changes at the country level.

UNDP is working in cooperation with

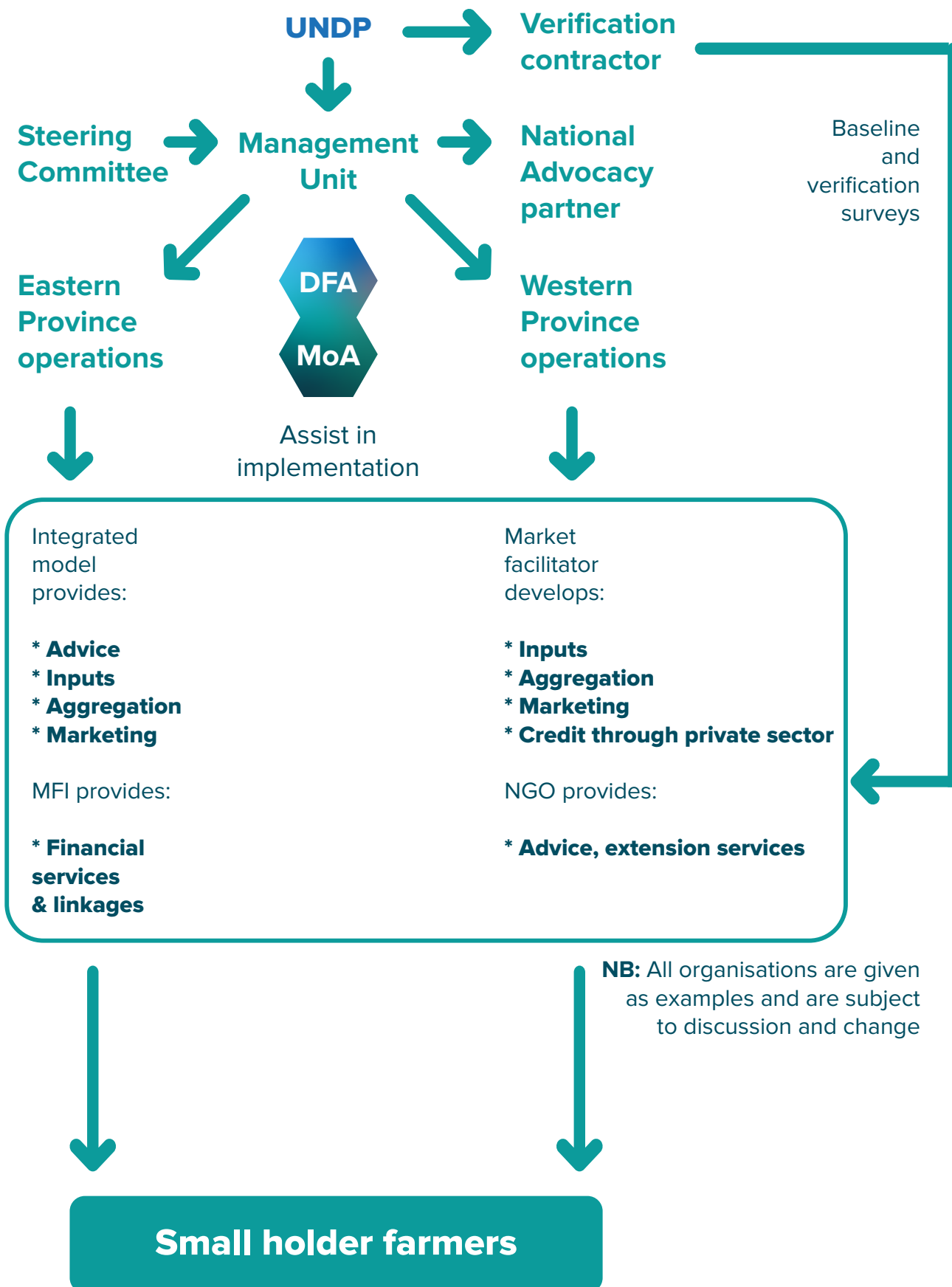
The Secretariat of the World Health Organization Framework Convention on Tobacco Control, the World Food Programme, the Food and Agriculture Organisation of the United Nations, the International Labour Organization, the World Health Organization, Tobacco Free Portfolios, American Cancer Society, the Zambia UNDP Country Team, and Zambian Ministries of Health and Agriculture.

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Appendix A. Implementation model of the Tobacco Social Impact Bond





Design/Layout:
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FCTC
WHO FRAMEWORK CONVENTION
ON TOBACCO CONTROL
SECRETARIAT





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