Initiatives on Addressing Agricultural Burning

Dang Espita-Casanova
Clean Air Asia

- **ASEAN Agreement on Transboundary Haze Pollution**

Year	ASEAN Initiatives
1992	• The issue of transboundary pollution was first highlighted at the 4th ASEAN Ministerial Meeting on the Environment (AMME)
1993	• ASEAN Specialised Meteorological Centre (ASMC) was established
1995	• ASEAN Meeting on "the Management of Transboundary Pollution" • ASEAN Cooperation Plan on Transboundary Pollution (ACPTP) was adopted at AMME • ASEAN Seniors Officials on the Environment – Haze Technical Task Force (ASOEN – HTTF) was established to actively implement ACPTP
1997	• 1st ASEAN Ministerial Meeting on Haze (AMMH) was specifically convened to address the problem of haze in the region caused by forest and/or land fires. • **ASEAN Regional Haze Action Plan (RHAP)** formulated by ASOEN – HTTF was endorsed by AMMH

Lifted from the Roadmap on ASEAN Cooperation towards Transboundary Haze Pollution Control with Means of Implementation (ASEAN Secretariat, 2021)

- **ASEAN Agreement on Transboundary Haze Pollution**

Year	ASEAN Initiatives
1999	• **Zero burning policy** targeted at plantation companies and timber concessionaires was adopted by the ASEAN Environment Ministers.
2002	• The **ASEAN Agreement on Transboundary Haze Pollution (AATHP)** was signed by all ASEAN Member States • AATHP also called for the establishment of an **ASEAN Coordinating Centre for Transboundary Haze Pollution Control (ACC)**
2003	• **AATHP** came into force following the ratification of 6 ASEAN Member States
2014	• The **ASEAN Agreement on Transboundary Haze Pollution (AATHP)** was ratified by all ASEAN member countries

Lifted from the Roadmap on ASEAN Cooperation towards Transboundary Haze Pollution Control with Means of Implementation (ASEAN Secretariat, 2021)

Member Countries: Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam

- **ASEAN Agreement on Transboundary Haze Pollution**

"… **prevent and monitor transboundary haze pollution** as a result of land and/or forest fires which should be mitigated, through concerted national efforts and intensified regional and international co-operation."

Article 2 of AATHP

Roadmap on ASEAN Cooperation towards Transboundary Haze Pollution Control

"Transboundary Haze-Free ASEAN by 2020" ← Regional transboundary haze pollution is eliminated through intensifying collective actions to prevent and control forest and/or land fires

Most important operational provisions of AATHP:

MONITORING (Article 7)

PREVENTION (Article 9)

ASSISTANCE (Article 12)

Key Strategies (from the Roadmap):

- Implementation of the ASEAN Agreement on Transboundary Haze Pollution (AATHP);
- Sustainable Management of Peatlands for Peatland Fires Prevention;
- Sustainable Management of Agricultural Land and Forest for Large Scale Forest and/or Land Fires Prevention;
- Strengthening Policies, Laws, Regulations and their Implementations, including to facilitate exchange of experience and relevant information among enforcement authorities of the Parties in accordance with the AATHP Article 16 (f);
- Enhancing Cooperation, Exchange of Information and Technology, and Strengthening of Capacity of Institutions at All Levels;
- Enhancing Public Awareness and Cross-Sectoral and Stakeholders Participation;
- Securing Adequate Resources from Multi-Stakeholders for Transboundary Haze Prevention; and
- Reducing Health and Environmental Risks and Protection of Global Environment.

- **Malé Declaration on Control and Prevention of Air Pollution and its likely Transboundary Effects for South Asia (MD)**
  - Intergovernmental network established at the 7th Governing Council meeting of South Asia Co-operative Environment Programme (SACEP) held in Malé, Maldives in April 1998
  - Co-implemented by SACEP and UNEP (1999 – 2010) with financial support from Swedish International Development Cooperation Agency (SIDA)
  - Coordination of the programme is now facilitated by the Secretariat at the Regional Resource Centre for Asia Pacific (RRC. AP), Asian Institute of Technology
  - Member Countries:
    - Bangladesh, Bhutan, India, Iran, the Republic of Maldives, Nepal, Pakistan and Sri Lanka

Source: http://www.sacep.org/programmes/male-declaration

- **Implementation of the Malé Declaration (MD)**

Phases	Year	Summary of Activities
Phase I	1999-2001	• Establishment of the intergovernmental network • All participating countries complemented baseline studies and action plans
Phase II	2001-2004	• Capacity building program on monitoring network; development of the institutional structure; and development of methodology for monitoring • National and regional level stakeholders' consultations
Phase III	2005-2008	• Capacity building for monitoring, impact assessment and prevention of air pollution (regular regional and national training programme) • Ozone was also included in the parameter for monitoring • Continuous improvement of the emission inventory manual and workbook • Epidemiological study looking into the impacts of particulate matter on asthmatic school children (Bangladesh) • Knowledge products: publications, interactive programs, newsletters, and brochures

Source: http://www.sacep.org/programmes/male-declaration

- **Implementation of the Malé Declaration**

Phases	Year	Summary of Activities
Phase IV	2010-2013	• Task Force on Future Development of the Declaration was established to consider important aspects of the expanding network (e.g., development of regional technical centres) • Continued assistance to the member countries to enhance their regional cooperation, monitoring, impact assessment; strengthen the initiatives started in the first three phases and initiate new ones

Phase V	2014-2016	• Promote development of policy measures to control emissions of air pollution including Short-Lived Climate Pollutants (SLCPs) in South Asia
		  • Development of source specific protocols and guidance to control emissions
		  • Participated at the high level sub-regional consultation on action on SLCP in Southeast and Northeast Asia
		  • Conduct awareness programmes among policy makers and stakeholders
		• Strengthen impact assessment activities (health/crop/corrosion)

Source: http://www.sacep.org/programmes/male-declaration

Recommitment to the Malé Declaration

- Stockholm Environment Institute and the Climate and Clean Air Coalition as leads
- A new draft agreement and workplan are being finalized
- Activities will include:
  - Training on air quality management components
  - Strengthening monitoring to assess levels of air pollution
  - Establishing emission inventories and projections to identify measures
  - Assessing the impacts and highlighting the multiple benefits of addressing air pollution and climate change in a more integrated manner
  - Sharing knowledge on the measures that work well in different parts of the region that can effectively reduce air pollution.

Source: http://www.sacep.org/programmes/male-declaration

- **Climate and Clean Air Coalition Agriculture Hub**

Governments
Intergovernmental Organizations
Non-governmental Organizations

X

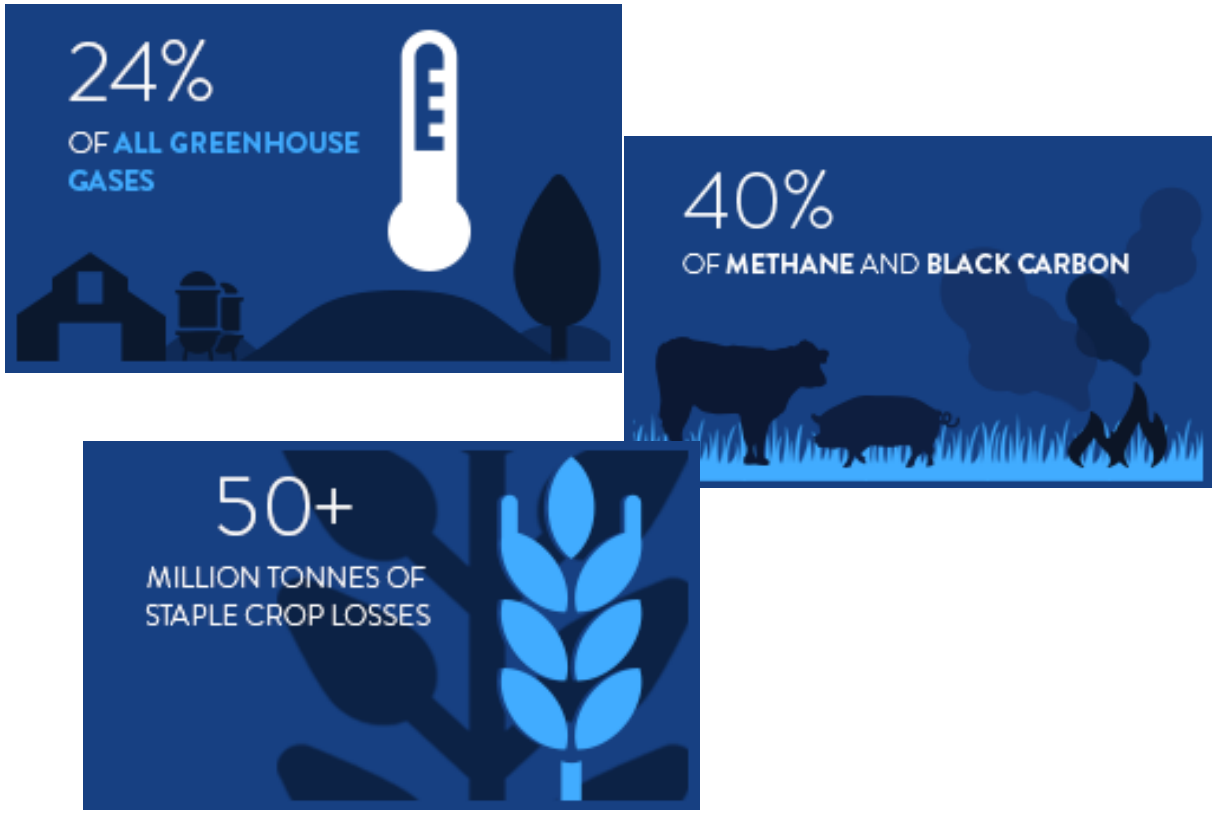
Private Sector Leaders in the Agriculture Sector

share expertise and support countries in mitigating SLCPs from paddy rice cultivation, livestock, and open burning of agriculture

- Co-led by Costa Rica, United States, and Vietnam
- Agriculture Leadership Group:
  - *States*: Bangladesh, Cambodia, Canada, European Commission, Germany, Ghana, Israel, Mexico, Nigeria
  - *Non-States*: CASAD Benin, CHRE, Eco-Entrepreneurs, FAO, Global Dairy Platform, Global Methane Initiative, Green Revolution Initiative, Institute of Environmental Biotechnology-Boku, IGSD, National University of Laos, Oxfam, SEI, Straw Innovations, UNEP, World Biogas Association, WMO, WRI

• Climate and Clean Air Coalition Agriculture Hub

TOP FACTS: Global Emissions from Agriculture



GOALS (by 2030):

- all CCAC partners collectively ensure that **agricultural SLCPs are fully considered in national climate policy** and that **many countries contribute to achieve the 20-25% methane reduction goal**
- **seek a national commitment** with **detailed implementation plans** and buy-in at the subnational level by the top ten agricultural burning nations (Brazil, China, India, Indonesia, Mexico, Nigeria, Russian Federation, Tanzania, Thailand, US) to eliminate unnecessary agricultural burning

https://www.ccacoalition.org/en/initiatives/agriculture-hub

Activities under the **Open Agricultural Burning Workstream** of CCAC Agriculture Hub

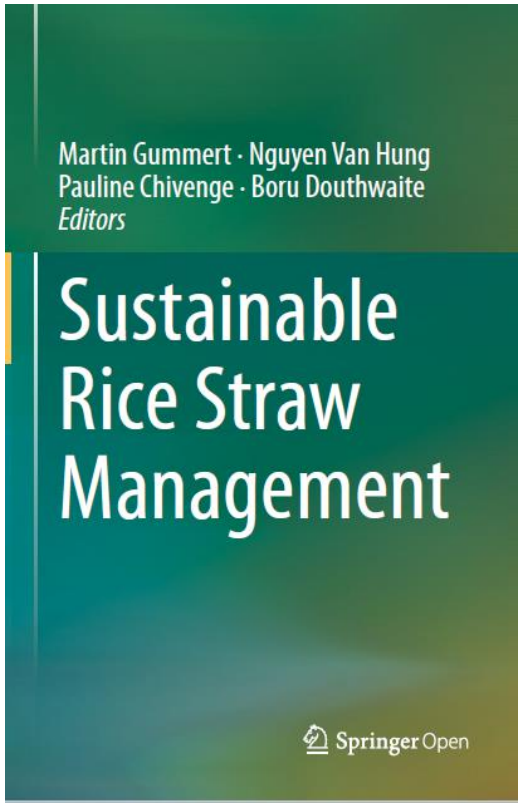
Country	Year	Project
India	2017-present	Promoting alternative practices to mitigate open agricultural burning in Punjab, India
India	2019-present	Enabling sustainable uses of crop residue in the State of Punjab, India
Peru	2017-present	Alternative practices to mitigate agricultural open burning in Peru
Cote d'Ivoire Ghana Nigeria	2019-present	Open burning mapping in Nigeria and West Africa
Colombia	2023	Deliver a national roadmap to reduce SLCPs from open burning

IRRI Research Program Initiatives

- 2012: International Workshop on Rice Straw Energy
- 2013-2014: Feasibility Study on a Rice Straw Combustion Plant using Organic Rankine Cycle Technology
- 2013-2016: Rice Straw Bioenergy
- 2016-2018: Scalable straw management options for improved farmer livelihoods, sustainability and low environmental footprint in rice-based systems

Project Objectives:

(1) Identify, develop, and verify technologies and business models for sustainable rice straw management;
(2) Conduct market studies on existing and potential rice straw product markets;
(3) Establish data on GHG emissions from different rice straw management and processing practices;
(4) Determine environmental footprints using life cycle assessment (LCA); and
(5) Formulate policy recommendations for communicating to policy makers



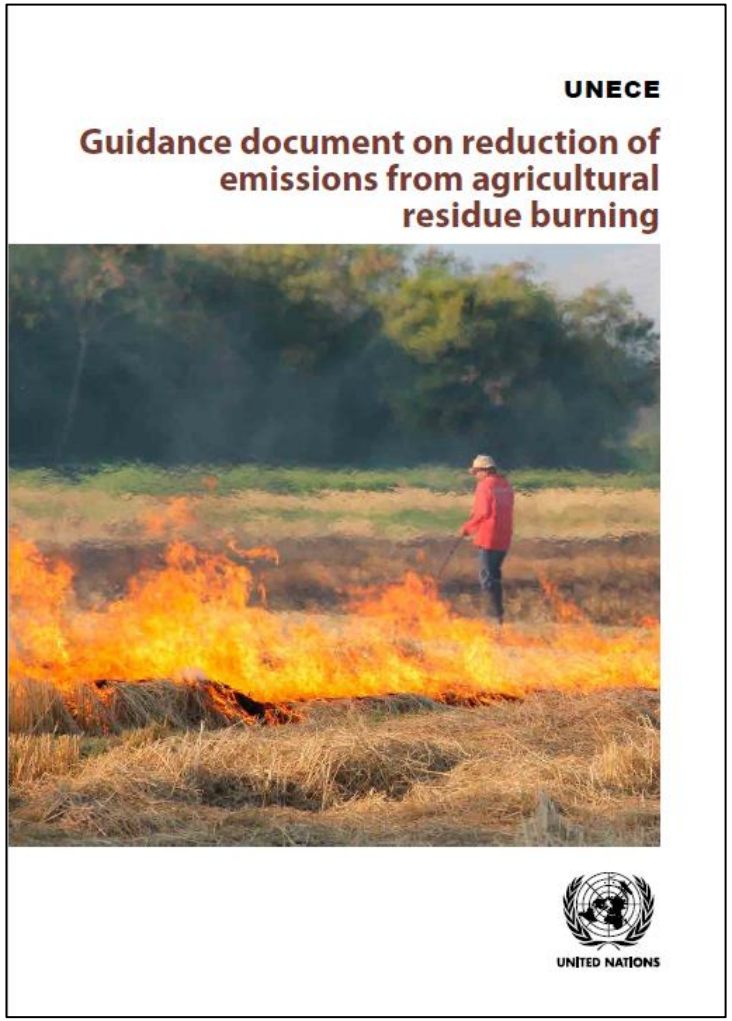
- Provides information for farmers on the **best alternative straw management** options and research-based evidence that **may guide policy makers in South and Southeast Asia** (for GHG reduction)

- **UNECE Guidance document on reduction of emissions from agricultural residue burning**

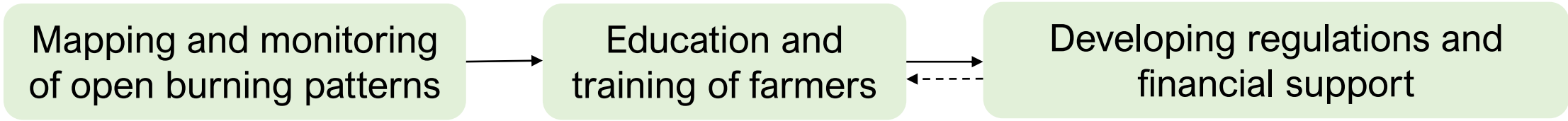
UNECE member states:

- Countries of Europe, North America (Canada and United States), Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) and Western Asia (Israel)

- Guidance document describes the **implementation of the practices, methods, approaches, and the technical instruments** that may significantly contribute to **reducing air pollution from agricultural residue burning**
- Executive Body for the UNECE Air Convention adopted the guidance document last December 2021



- **Integrated Approach to fire-free agricultural systems**



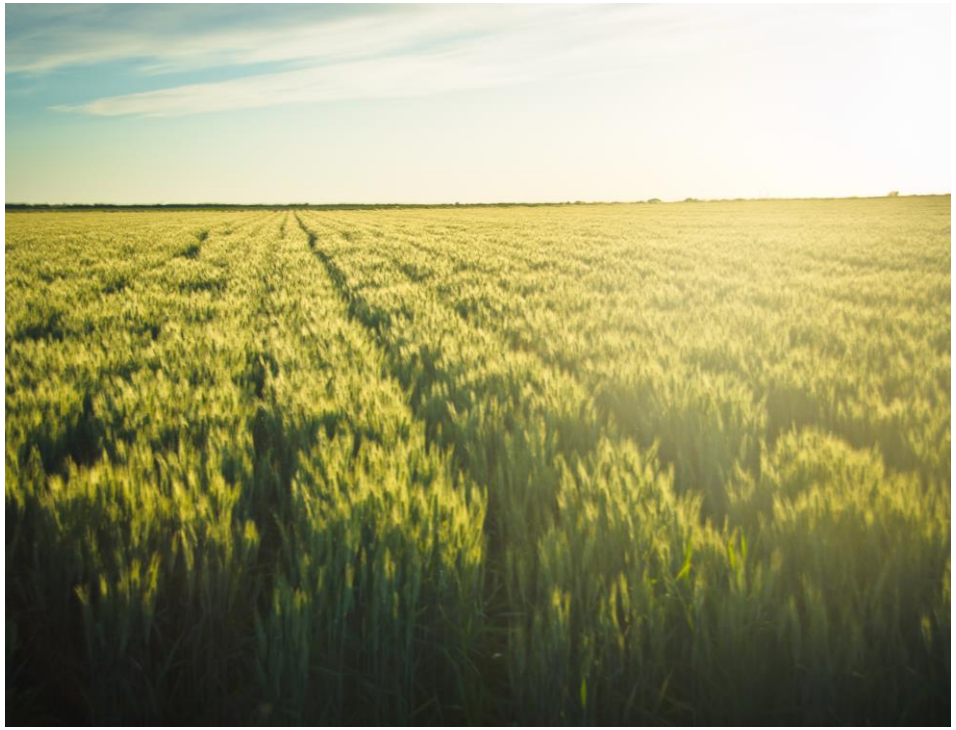
Available alternative to agricultural residue burning

- Conservation Agriculture
- Low-till practices
- Alternative use practices
  - Animal feed and bedding
  - Bioenergy

Supportive services and measures

- Extension services – training and education
- Equipment (mechanized farming technologies)
- Communication: awareness-raising, community engagement and advocacy
- Market development
- Financing
- Governance and regulatory measures

Guidance document on reduction of emissions from agricultural residue burning



Thank you for your attention.

For questions, kindly email:
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