

Engineering X

Founded by the Royal Academy of Engineering
and Lloyd's Register Foundation

Engagement with decision-makers:
a learning resource



Sam Barker, LR Foundation Impact Review, 2022



Royal Academy
of Engineering



ENGAGEMENT WITH DECISION-MAKERS

Thematic learning resource

THE CHALLENGE

Open burning of waste, responsible for around 11% of global carbon emissions, accelerates climate change and contributes to serious respiratory, dermatological, and developmental health issues. It is largely a symptom of inadequate waste management systems, leaving many communities with no option but to burn their waste. Other drivers include low awareness of health risks and perceived benefits such as pest control or resource recovery. The practice deepens existing inequalities and disproportionately harms the most vulnerable, including informal waste workers, women, children, and people living in or near dumpsites. Despite these impacts, waste management is often deprioritised in national, municipal, and city budgets and received only an estimated 0.41% of overseas development finance between 2003 and 2021.

In 2022, Engineering X launched the first global grant scheme dedicated to addressing the open burning of waste. The projects successfully raised awareness, collected and shared critical data and information, delivered initiatives that generated tangible community-level impact and brought national and international stakeholders together.

THE GRANT PROJECTS

Building Capacity and Changing Policy Around Open Burning in Banyuwangi, Indonesia

Project lead: Systemiq

A multi-stakeholder Approach to Reduce the Risk to Human Health and Safety from Open Burning of Municipal Solid Waste in Mbarara City-Southwestern Uganda

Project lead: Integrated Community Development Initiative

An Open Burning (Waste) Free City Framework: Institutionalisation for Scale in Andhra Pradesh and Telangana, India

Project lead: Administrative Staff College of India

Mitigating Open Burning: A Framework for Public Awareness

Project lead: ICLEI Africa

THE THEME

Policymakers and government officials play a pivotal role in shaping and sustaining effective waste management systems. **Engaging decision-makers is essential to end the open burning of waste because it turns a local problem into a policy priority.**

However, often there is a disconnect between national government priorities and the capacity of local governments to implement policies. Therefore, strong political will is needed, particularly to support enforcement and regulation. Decision-makers are also critical in securing financial investment for the infrastructure required to eliminate the practice, including collection vehicles, sorting facilities, and safe disposal sites. While public funding alone is not enough, it is needed to help attract private investment. Policymakers can be difficult to engage because they are often hard to access, face competing priorities, and experience high attrition. Under the theme engaging decision-makers the projects found effective approaches for overcoming these barriers and engage policymakers in meaningful ways.



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PROJECT LEARNINGS AND INSIGHTS

Engaging decision makers is challenging but securing government buy-in is essential; without strong local support, sustained progress becomes difficult. Success requires more than land allocation or co-funding, political capital is often the determining factor, which is why a long-term partnership approach is central. For example, a project operating in East Java and Bali, Indonesia, focused on shifting policy around open burning, found that **investing time to build trust with government officials was critical**. Senior civil servants are often the linchpin in making progress; once they understand why the work matters, decisions move relatively quickly. Issues that might otherwise take months could sometimes be resolved with a simple WhatsApp message or coffee, because the personal relationships were already there. **Engaging decision-makers also requires a good placed based understanding and context. Culture can shape whether people respond better to leadership-driven or community-driven change.** For example, the project team found it effective to work with local religious leaders, such as imams, to help shape messaging around cleanliness and shared responsibility in reducing open burning. Village leaders also needed to be actively involved and willing to contribute their own effort for instance, by organising community clean-ups and mobilising residents.

“The Engineering X grant has enabled important foundational work to address critical

challenges in Africa’s waste management sector. Through the Mitigating Open Burning project, it supported the development of a practical framework that gives local government authorities accessible tools to better address open waste burning. The framework was designed to be grounded in practice rather than abstraction, offering low-cost, realistic interventions that can strengthen ongoing work and help shape future action. It also responds to the need for peer learning by documenting experiences from across the continent, recognising that governments benefit from examples that showcase context-relevant solutions.

- Jokudu Guya, ICLEI Africa

Another project in Andhra Pradesh and Telangana, India found that to secure political buy-in, **advocacy must occur at multiple levels of the governmental system** including the central branches, such as the Ministry of Housing and Urban Affairs, state-level branches, such as urban development departments, and local branches of government. Perspective change in senior leadership was also critical. For example, the team engaged with the Commissioner and Director of Municipal Administration in Telangana and the Managing Director of the Swachh Andhra Corporation in Andhra Pradesh and requested the establishment of steering committees in each state. As a result, both states formed steering committees to support the implementation of the project’s activities for open-burning-free cities. The project team also **aligned their advocacy efforts and messaging with an existing national**



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campaign, enabling them to promote their cause at the national level and expand their reach. **Coordinated, multi-stakeholder efforts across different levels are key to influence policy by strengthening awareness, aligning priorities, and driving collective action.** Another project working in Mbarara City-Southwestern, Uganda conducted awareness and advocacy meetings with key stakeholders, including city policymakers, implementers, and citizens’ representatives. These meetings aimed to support the formulation and revision of policies to reduce, and ultimately eliminate, the open burning of municipal solid waste in Mbarara City. As a result, the city council amended the environmental protection policy to prohibit open burning of municipal solid waste, and the city enforcement department has begun enforcing this provision.

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While open waste burning is recognised as a disruption to local government activities, it is not yet clearly framed as a distinct challenge. Therefore, continued awareness-raising efforts are necessary. Limited public awareness of the impacts of open waste burning, and of the actions local governments can take to address it, contributes to low prioritisation and insufficient allocation of resources for regulation and by-law enforcement. **Raising public awareness can help generate demand for action, encouraging local governments to allocate the necessary resources and implement targeted interventions to tackle open waste burning.** For example, a multi-city project spanning Southern, Eastern and Western Africa developed an awareness-raising framework designed to educate local governments on open waste burning and to guide them in increasing public awareness through its application.

KEY LEARNINGS

- A long-term partnership approach, with continuous engagement and sustained time investment, is central to building trust with government officials.
- Culture can shape how people respond to change so, place-based understanding and local context are essential.
- Advocacy must occur at multiple levels of the governmental system to secure political buy-in.
- Aligning advocacy efforts and messaging with an existing national campaign can expand reach.

- Perspective change in senior leadership is critical to achieve lasting change.
- Coordinated, multi-stakeholder efforts across different leadership levels are key to influence policy by strengthening awareness, aligning priorities, and driving collective action.
- Raising public awareness can help generate demand for action, encouraging local governments to allocate the necessary resources and implement targeted interventions to tackle open waste burning.

“One of the most significant achievements of the project has been supporting dialogue and advocacy that contributed to policy improvements aimed at reducing open burning and protecting public health.”

- Ssekah Abdu Kato, IDCODI

SOURCES:

These key learnings were prepared using information from interviews and presentations with the project team and documents supplied by the Academy including reports. Learn more about the grant projects and their impact:

ASIC: [Towards Creating Open Burning Free \(OBF\) Cities in India](#)

ICLEI: [End open burning: An awareness-raising framework and guide for local government](#)

[authorities](#)

Systemiq: [Stop Burning waste and Stop Dumping Waste in the River](#) short videos



Bandora dumpsite, 2023



Practical Action

Engineering X is a growing collaboration founded by the Royal Academy of Engineering and Lloyd's Register Foundation.

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