Guidelines Implementation Process and Proposed Toolkit

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Implementation Process

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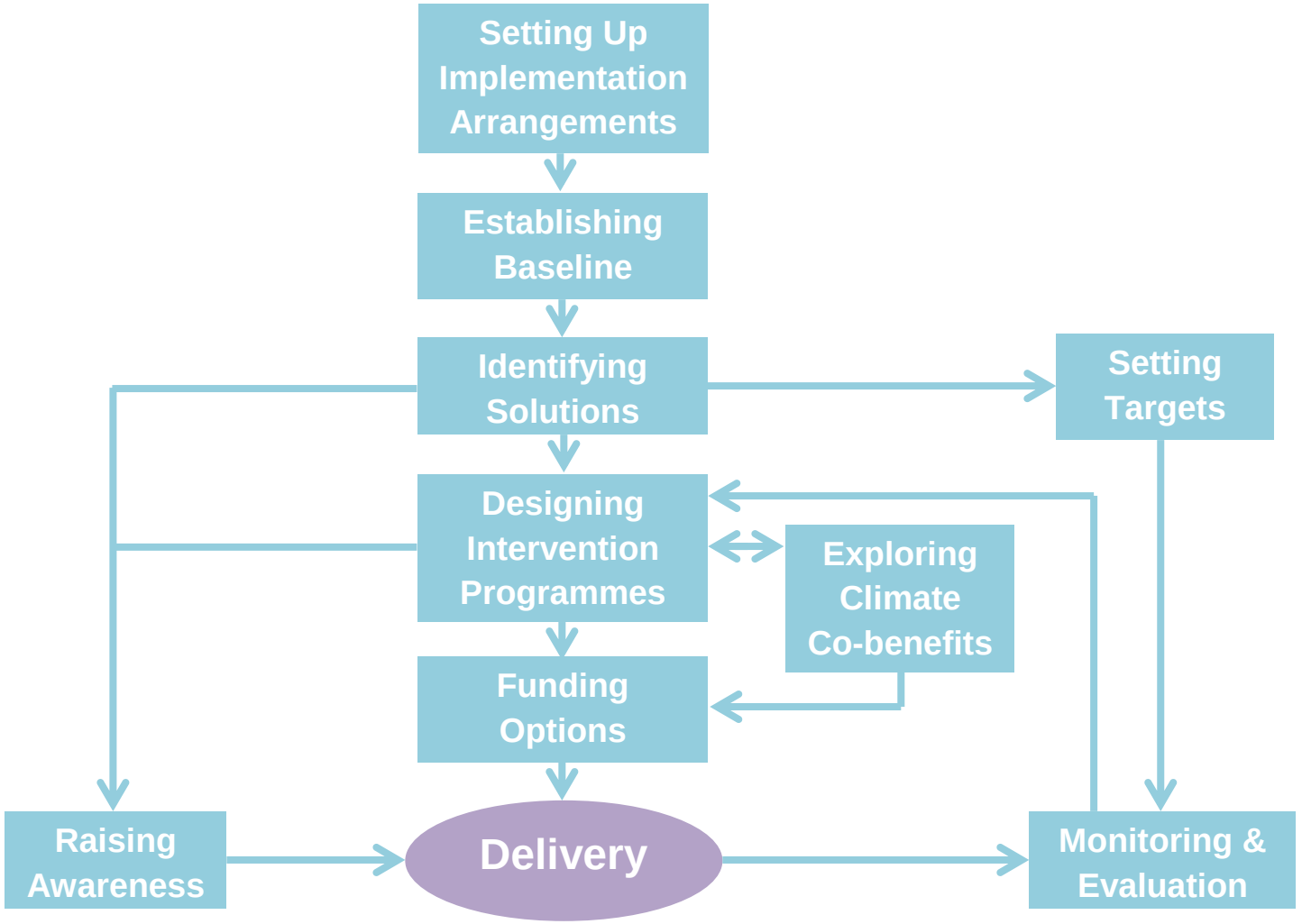

Interactions with SE4All

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- SE4All Goals

- >80 LMIC opted in to SE4All, committed to:

Rapid Assessment & Gap Analysis → Action Agenda & Investment Prospectus → Delivery & Monitoring

- Cleaner cooking, heating and lighting key to SE4All =>

Clean Combustion Implementation Planning

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SE4All Action Agenda and Investment Prospectus

Step 1 - Setting up Implementation Arrangements

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- **Co-ordination at national level:** Leverage efforts with existing international/regional initiatives avoiding duplication – encouraging associations and apex institutions to take action
- **Co-ordination at a programmatic/ delivery level:** Understand the business model/ approach, and which key existing initiatives, partners will be best to work with
- **Mapping roles and responsibilities of stakeholders**
  - ✓ Government - Ministries of energy, health, agriculture and forestry/ rural energy agency/ local, district and village authorities/ regulatory and standards bodies
  - ✓ Private sector (including financing institutions)
  - ✓ Civil Society (non-profits, associations)
  - ✓ Consumers (rural, peri-urban, urban)
- **Consolidate key planning actions - collaboration, roles and responsibilities etc. :** identification of gaps, risks and challenges, exploring short term –long term solutions, potential funds etc.

Step 1 – Setting up Implementation Arrangements – mapping stakeholders

Cookstove Industry
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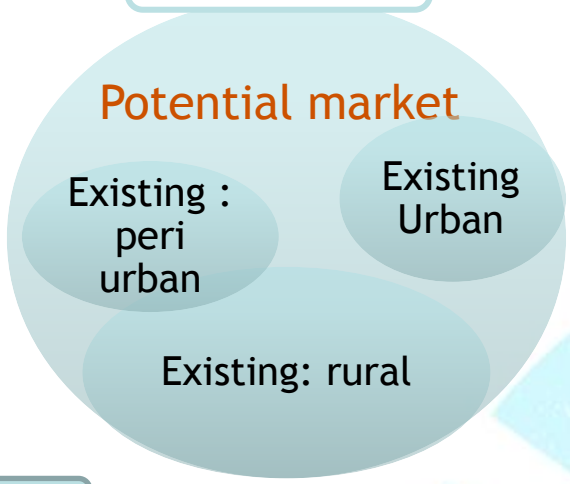
Government

- **Ministries:** Energy, Health, Agriculture, Environment, Forestry
- Rural energy/electrification agencies/ Regulators
- Energy Centers (if it exists)
- Local governments

Users



Development partners

- Global initiatives (SE4ALL, GACC)
- Bilateral and multilateral institutions
- Donor governments

Civil society including R&D

- Non profits, associations
- Universities and research institutions
- Testing and standardisation bodies/ training institutions

Financing

- Governments, Banks
- Micro finance, group financing (semi-formal)
- Carbon/ climate funds
- Grants

Supply chain

- Producers
- Dealers/ Importers
- Entrepreneurs

Step 1 – Setting up Implementation Arrangements

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Factors to consider:

- **Understand the technology landscape:** Types of tried and technology for IAP in-country- local content
- **Understanding customer segmentation within a socio-cultural context** – the incentive for fuel-switching
- **Skills and knowledge existing in-country along the value chain**
- **Supply chain** – the more established, the greater the opportunity
- **Financing arrangements** – costs, accessibility, willingness
- **Integration within on-going or new energy planning processes and fulfilling targets set out nationally or globally**

Step 1 – Setting up Implementation Arrangements

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Planning for improved biomass utilisation in Nicaragua

- Firewood and Charcoal Strategy (ENLCV) of Nicaragua for 2012-2022
- Finalizing a National Program for Sustainable Use of Firewood and Charcoal for 2014-2022
- Aims to facilitate the adoption and transfer of 400,000 improved cook stove
- Promote climate friendly technologies in SMEs that use wood in productive processes(see pic)
- Increase viable business models improving design, customer identification, financing, marketing, distribution strategy and organisational structure
- Develop market mechanisms, regulatory frameworks to consolidate biogas sector
- Train personnel from Ministry of Environment and Natural Resource, Health and Energy

Policy:

- Propose amendment of Law 532 + regulations including favorable conditions for biomass

As per Ministry of Energy & Mines, 60% population cooks with firewood on traditional stoves.

In 2012, firewood consumption reached 44.4% of total final energy consumption surpassing oil

Small business using improved cook stoves in Managua

Step 2 – Establishing Baseline

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A baseline defines the initial position in terms of:

- Energy access and fuel use *(WHO solid fuel use database)*
- Household Air Pollution *(WHO Household Air pollution database)*
- Health impacts *(WHO Burden of disease from HAP database)*

A baseline is needed to:

- Provide data to ensure interventions are relevant and adapted to local context
- Set a reference level against which to assess progress

Step 2 - Establishing Baseline

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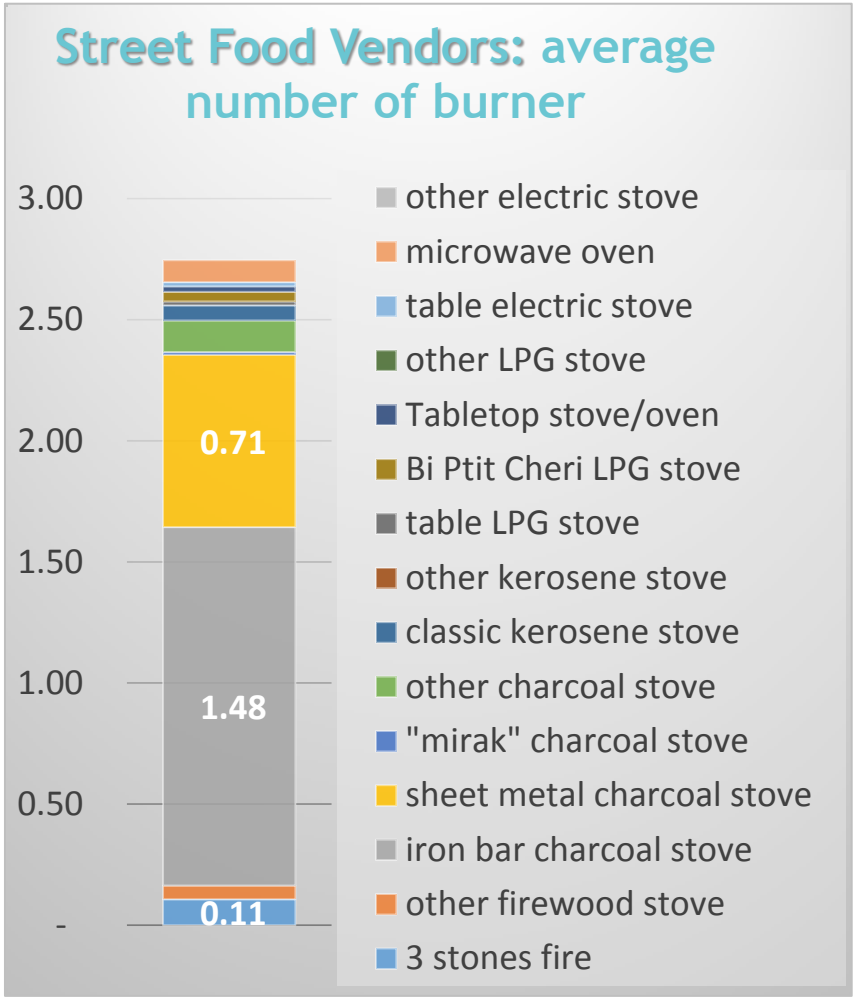
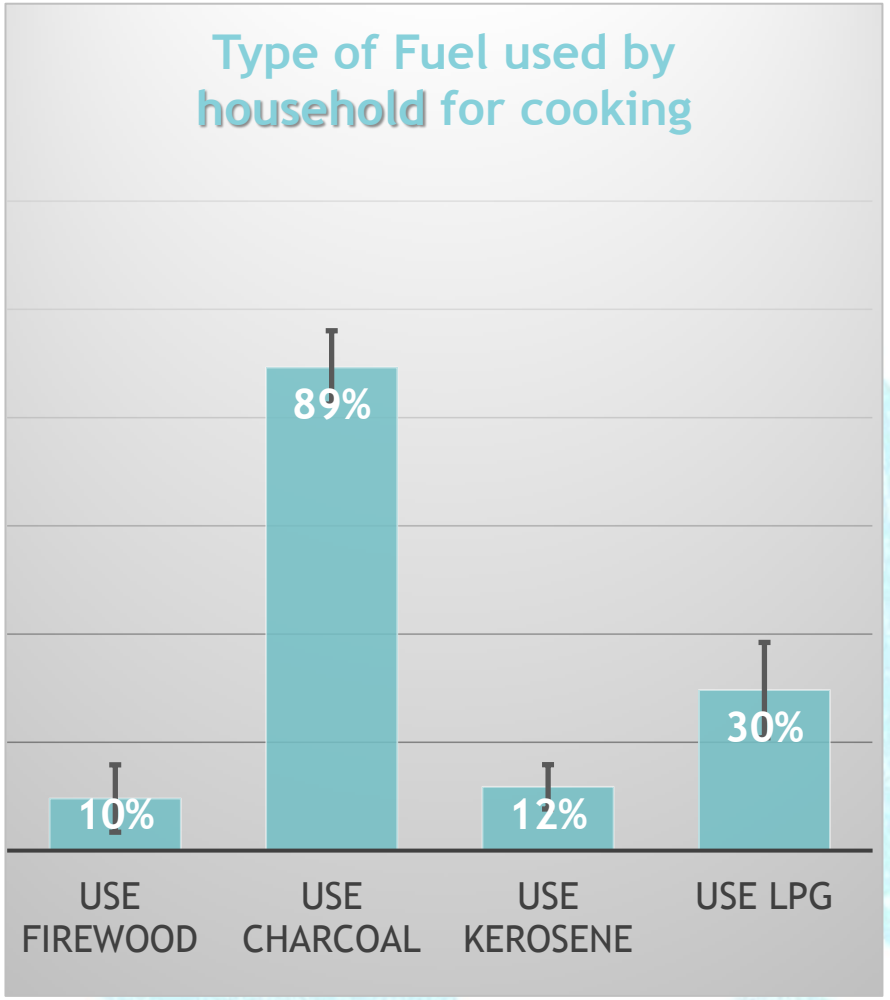
An example of the diversity of Fuel/Stove combination in Port au Prince HAITI





Step 2 – Establishing Baseline

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SE4All Global Tracking Framework – a Multi-Tier approach

- Differentiate between solid fuel stoves
- Reliability of access (ex: LPG, electricity)
- Importance Secondary fuel/stove (beyond the energy ladder paradigm)

Step 3a – Identifying Solutions

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Solutions - Fuel-stove/lamp combinations which reflect the country/regional context such as:

- ✓ the availability (or potential) of resource/s - natural, human, and finance
- ✓ market size – rural, peri-urban, urban
- ✓ supportive enabling environment

Why identify solutions?

- Setting targets and implementation / delivery strategies
- Can trigger design of favourable policies/ regulations to support proposed/ potential solutions
- To assist in the allocation of budgets or the raising of funds/financing
- Invest in research and development, setting up of test centers
- Assist in generating local content if market is promising, including building capacities

Step 3a – Identifying Solutions

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Factors to consider in selecting solutions

- The available resource (fuel, technology) in the country/region
- The actual needs of households (rural, peri urban, urban) including heating, cooking and lighting (and dual uses)
- Policy and regulations that support fuel/technology mix
- Stoves can have multiple purposes as per local socio-economic context (roasting, frying, boiling), and for multiple sizes of cooking devices (pots and pans)
- Costs and affordability of fuels and devices as per market segmentation (economic tier, geography etc.).
- Options for available financing clean tech businesses/ entrepreneurs/ consumers – potential to 'leap frog' in using better technologies

Step 3a – Identifying Solutions

Reaching the rural markets: Village Level Entrepreneur (VLE) model in Guatemala

- Tested by Soluciones Comunitarias (social enterprise set in 2007) in Guatemala, the VLE model leverages local entrepreneurs to sell products such as clean cookstoves in isolated communities. VLE model uses entrepreneurs' trusted by communities to distribute products at limited costs boosting their income.
- Cookstoves were sold with other health promoting products such as eye drops, energy efficient lights, solar lamps, family nutrition kits etc.
- Over 100,000 products have been sold through over 3,000 rural village campaigns conducted by entrepreneurs.

Best practice for VLE model

- ✓ Ensure ongoing trainings for VLEs, provide mentors
- ✓ Set up accessible product hubs in nearby towns
- ✓ Bundle products. Entrepreneurs paid for what is sold, return products if unsold
- ✓ Provide financial support (commissions or part salary) and/or start up capital Best when marketing support is provided to VLEs

Source: Mapping successful cookstove distribution model, PAC, GACC and SNV, 2015

Step 3b – Setting Targets

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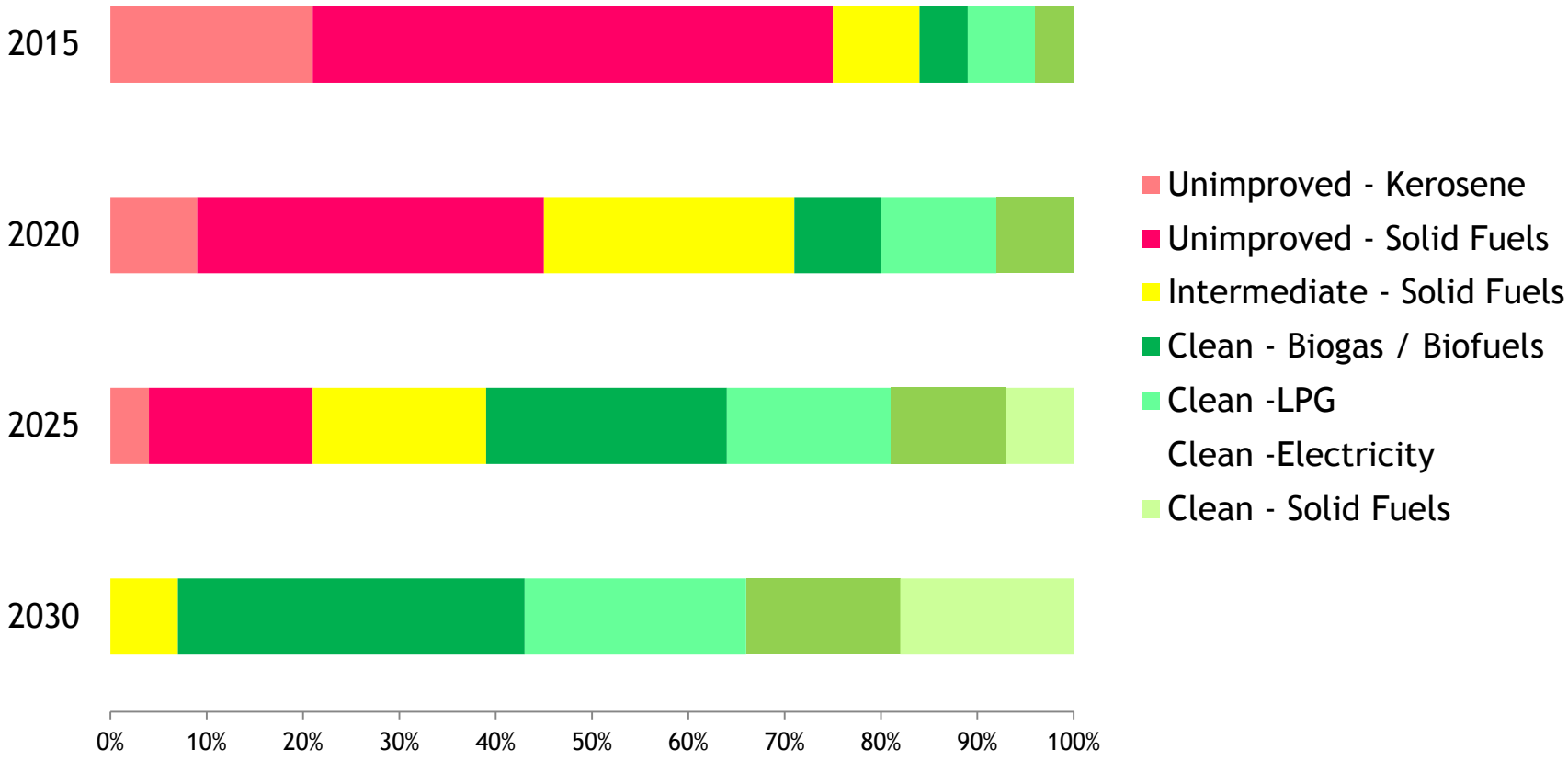
- Agreed targets needed to drive allocation of resources and efforts
- Targets for supply, take up and use of different levels of solution over time
- Should recognise:
  - Availability and costs/economics of solutions
  - Other barriers to take-up and use
  - Balance between clean and intermediate

Step 3b - Setting Targets: Example



Current and Targeted Percentages of Households Using Different Solutions

Step 4 – Designing Intervention Programmes

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- A “Programme” refers to a package of interventions and activities which together can lead to delivery at scale (and may encompass several projects)
- A programmatic approach allows barriers to be systematically tackled and opportunities converted into actions
- Designing programmes provides a time-bound action plan with a range of specific activities aimed at achieving positive impacts/change
- Programmatic designs can focus on or combine
  - ✓ Areas of intervention: technical advancement, capacity building, policy enhancement, awareness, installation, distribution of products, supporting enterprises, financing, knowledge and information etc.
  - ✓ Target groups: communities, private sector, institutions
- A programme will potentially need a specific business model oriented towards the type of institutions that design, fund or implement

Step 4 – Designing Intervention Programmes

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Factors to consider in designing programmes

Target level	Focus	Factors to consider
Community/ User/s	household characteristics, type/performance of the stove/fuel, user perceptions, supply chain of fuels/products, maintenance	➢ Affordability amongst different groups may affect adoption ➢ Time scale is important. Design for longer term for acceptability ➢ Ensure regular supply chain ➢ Poorer users/communities may be slower to adopt new fuels/devices ➢ Knowledge, perception and awareness important
National and policy	financing, regulation, market development	➢ For policies and targets to be achieved, fuel usage/ devices must meet standards (means presence of regulatory standards/bodies) ➢ Access to financing: existence of funds ➢ Tax and subsidies
Supporting services	capacity building, R&D, management, financial services	➢ Existence of value chain with skilled people ➢ Presence of institutions that can provide trainings or technical advisory; conduct R&D

Step 4 - Designing Intervention Programmes

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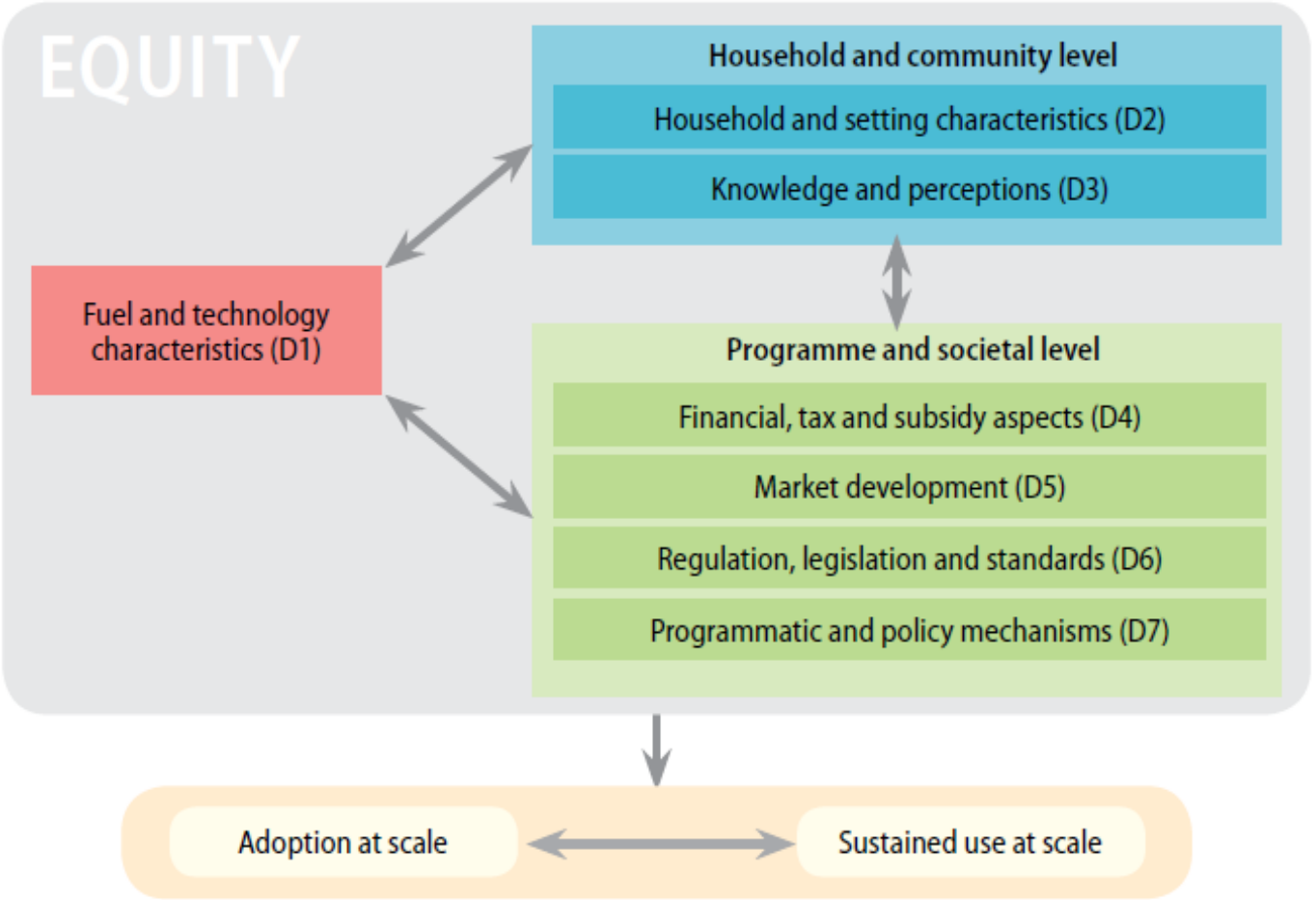
Factors to consider in designing programmes



Step 4 - Designing Intervention Programmes - Energy System Market Mapping

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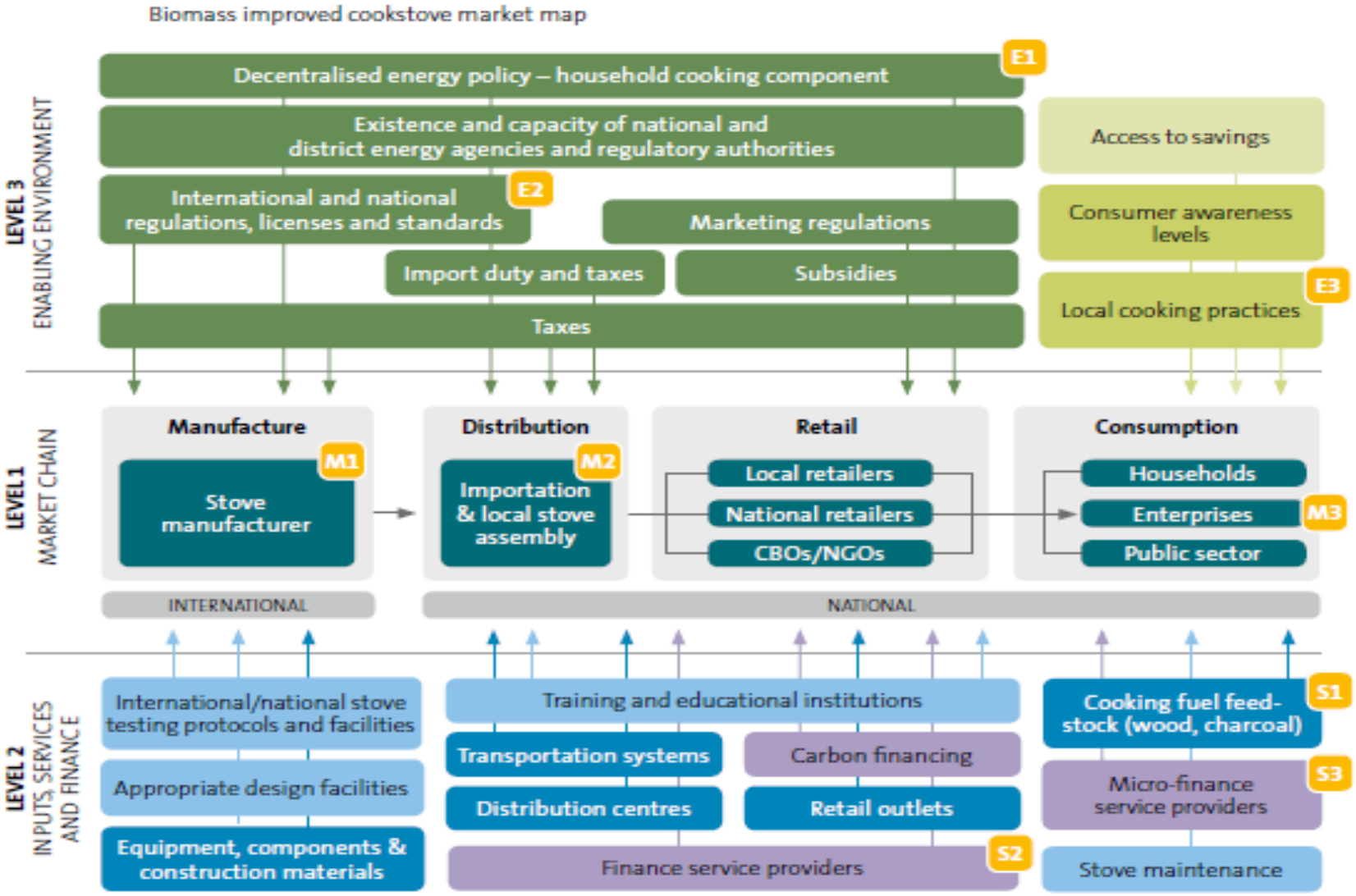

From Building Energy Access Markets, A Value Chain Analysis of Key Energy Market Systems, prepared for EUEIPDF by PAC

Step 4 – Designing Intervention Programmes

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LPG Fuel and Stove Supply in Senegal

Challenges: LPG subsidies removed in 2009. Import duty and VAT exemption, prices dependent on international oil prices, low consumer awareness in rural areas, poor consumers limited savings

Probable programmatic action/s: Technical and financial assistance strategies for governments, entrepreneurs as well as consumers, awareness creation

Enabling environment

Challenges: size limit on import deliveries, inadequate infrastructure, Loss of cylinders or damage during transits, National shortages due to inadequacies of contracts

Probable programmatic action/s: Technical assistance to LPG Importation authority, increase monitoring of good imports, enforcement of regulations, support distribution channels in-country

Market chain

Challenge: Lack of appropriate financing to consumers, especially rural

Programmatic action: Design specific financial packages

Supporting services

From Building Energy Access Markets, A Value Chain Analysis of Key Energy Market Systems, prepared for EUEIPDF by PAC

Step 5 – Raising Public Awareness

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- Fuel users need to be made aware of health impacts if they are to prioritise clean energy appropriately in spending decisions
- Raising awareness does not equate to participation or usage. Key is engagement + action (via entrepreneurs, community organisations and field workers, engaging women in decision making, local associations and leaders et al. in addition to media)
- Important to 'deliver the right message' and 'understand the target consumer to tailor the right information content (urban, peri-urban, rural)'
- Products/ technology promoted within awareness raising programmes must have been tried and tested within users 'socio-cultural context'
- Awareness needs to increase to a wider set of stakeholders apart from public – financing institutions, policy makers (including regulators), entrepreneurs
- The public can be the vehicle not only for use but also to generate finance for entrepreneurs through crowd finance etc. (Examples of platforms such as Kiva.)

Step 5 – Raising Public Awareness

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Role / opportunities for health sector to raise awareness:

- HAP is a combined climate-health-energy issue. However, it has primarily been discussed within the energy sector. Inter-sectoral engagement and awareness is a must – health public officials and practitioners, community workers, and even other ministries such as forestry/environment. The WHO Guidelines can be a starting point for engagement through the health sector.
- Target message – lowering costs, mitigating risks, less pressure on health centers and funds, and increasing gender parity
- Health sector has contact with virtually all, both urban and rural. This network can be effectively utilised for mass awareness raising

Step 6 - Funding and Climate Co-Benefits

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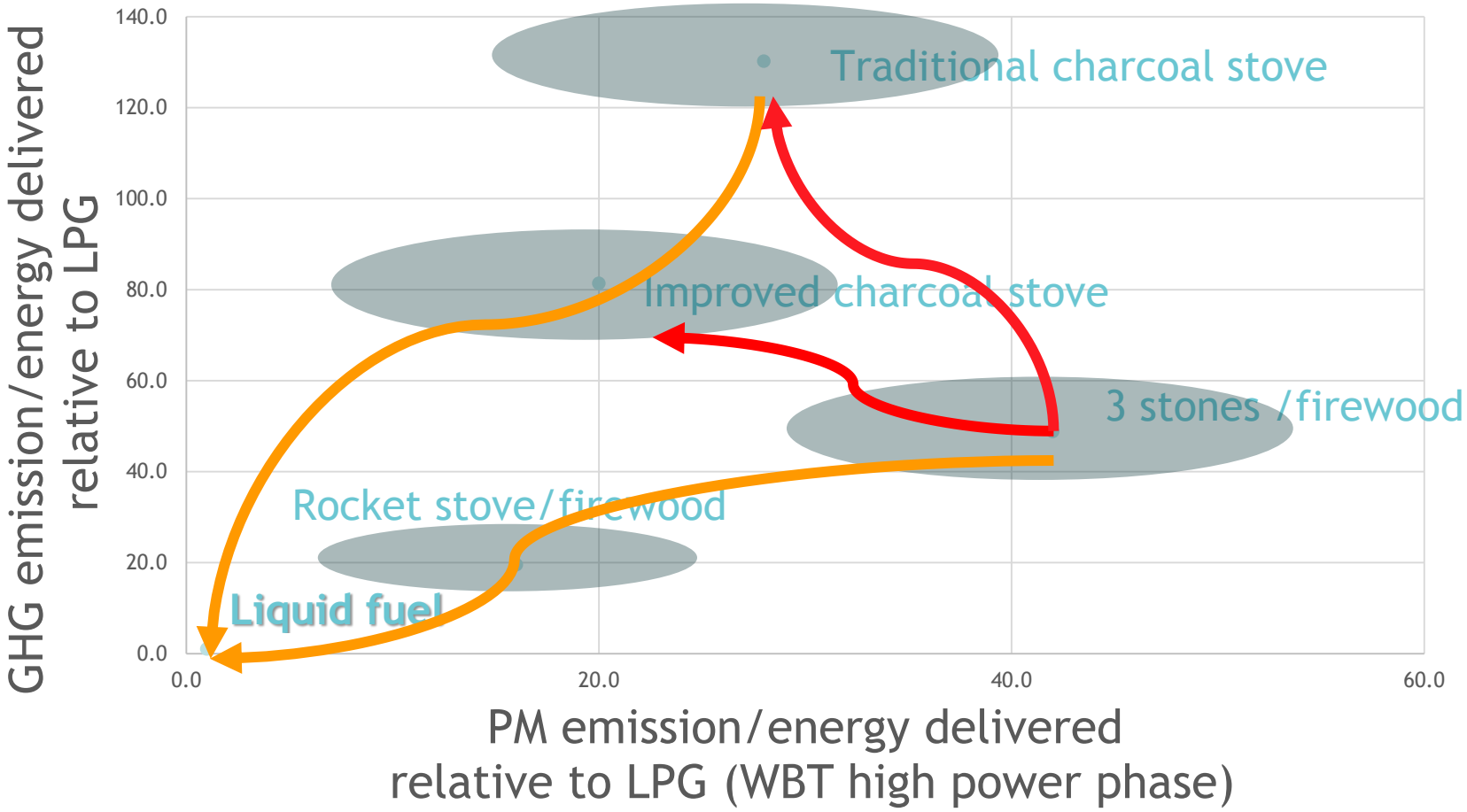
GHG emissions vs PM emissions of various fuel/stove combination (in the Haïtian context)



Step 6 – Funding and Climate Co-Benefits

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Opportunities for climate funding:

- CDM/voluntary markets (programmatic approach)
- NAMAs
- REDD+ (cookstove as a mean to reduce deforestation)

Step 6 – Funding and Climate Co-Benefits

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Case Study: Microsol Qori Q'oncha Cookstove program in Peru

- Voluntary Carbon Market
- 100,000 households using the technology
- 500,000 tCO_2 emission avoided
- USD 5.5 million from carbon finance

Step 7 – Monitoring & Evaluation

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M&E plays a role at 3 levels:

- Global outcome indicators
- Assess the “health” and sustainability of the value chain
- Understand actual impact on health, on women, on the household economy, on the environment (climate, forest)

Step 7 – Monitoring & Evaluation

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- M&E is key to assess progress and **adapt strategy** during implementation
- Measuring impact allow to assess the **Cost-effectiveness** of an intervention
- Need to balance **Cost** (& burden of data collection) vs **Usefulness** of information

Step 7 – Monitoring & Evaluation

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Tools available to support M&E:

Outcome: SE4All Global Tracking Framework Multi-Tier approach

Impact Assessment:

- Tools from result based finance
- "Evaluating household energy and health interventions, A catalogue of methods" (WHO, 2008)

Sustainability: Sustainability assessment of ICS dissemination (GIZ, 2014)

Step 7 – Monitoring & Evaluation

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Case Study measuring impacts on HAP: HEH project (Mexico, 2007)

Lessons learned:

- Lab test is not a good predictor of field performance
- Field testing is resource intensive and require technical expertise
- HAP measurement on small samples can be extrapolated with survey on a larger sample

Toolkit Proposal:

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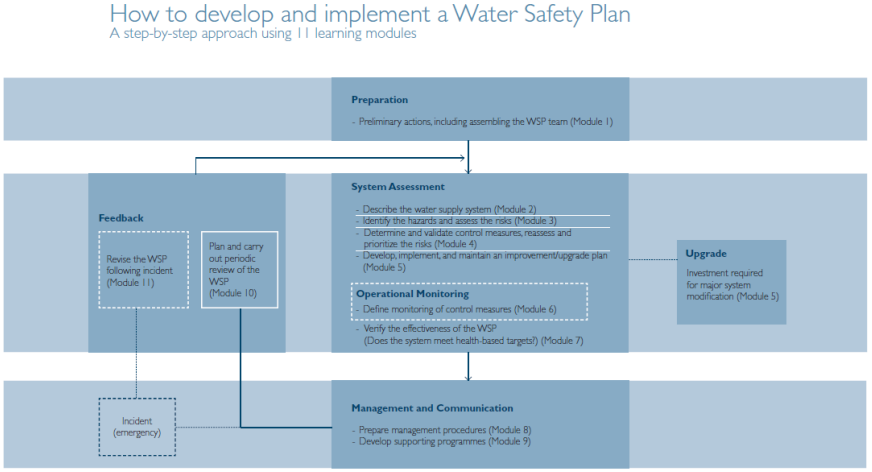
Step-by-Step Guide to Planning Implementation

(parallel to Water Safety Plan Manual)



Toolkit Proposal:

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- To inform / support LMIC decision makers
- Focus on national level planning
- Raise health professionals' HAP awareness
- Enable engagement with energy planning
- Raise profile of emission rates & HAP levels in energy sector
- Provide information on data sources/tools

Toolkit Proposal:

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Modules:

1. Introduction and Summary of Guidelines
2. Setting up Implementation Arrangements
3. Establishing Baseline
4. Identifying Solutions
5. Setting targets
6. Designing programmes
7. Raising awareness
8. Funding and climate co-benefits
9. Monitoring and evaluation

Each Module to include Overview, Examples & Tools, Case Studies

Toolkit Proposal:

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Title	Contents	Data & Tools
Introduction	- Summary of key messages and evidence from Guidelines - Case for health sector engagement and energy sector focus on clean fuels	
Setting up Implementation Arrangements	- Implementation process overview - Outline of responsibilities, roles and cross-sector collaboration approaches - Interactions with other initiatives (eg SE4All)	Mapping stakeholders Market segmentation for users
Establishing Baseline	Approaches to assessing current: - HH fuel use and access (including cooking styles, use of waste energy etc) - Emission rates and HAP levels - Deaths attributable to HAP	WHO Databases: - HH Energy - HAP concentration - Global Health Observatory

Toolkit Proposal:

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Title	Contents	Data & Tools
Identifying Solutions	Approaches to: - Identifying solutions with potential for adoption at scale - Scaling intermediate solutions 'gap'	- HH energy needs, uses and spend - HH incomes - Fuel/stove availability /cost - Stove performance - Emission-HAP-health relationships (HAPIT)
Setting Targets	- Types of target - Factors to consider in setting targets	
Designing programmes	- Key factors and issues - Types of programme and interventions - Market mapping and identifying barriers and interventions - Business models for delivery	- WHO review of factors influencing adoption and sustained use of clean fuels and stoves - Energy Market System Mapping - Case studies

Toolkit Proposal:

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Title	Contents	Data & Tools
Raising awareness	- Need for awareness raising - Role of health sector - Opportunities and means for awareness raising - Key messaging	
Climate co-benefits	- Climate benefits of clean fuels and efficient combustion - Assessment of CC benefits of fuel-stove combinations	- Stove performance - Methodologies for translating emission rates to climate impacts
Funding Options	- Estimating funding needs - Options / sources of funding (including climate funding)	
Monitoring and evaluation	- Need for M&E - Relevant indicators - M&E system design and resourcing	- WHO and SE4All HH survey tools - HAPIT

Next Steps:

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- **We need your feedback:**
  - Would a Toolkit as described be useful?
  - What do you see or changes you'd suggest?
  - Who should the target audience be?
  - Latin American regional differences?

- **If agreed:**
  - Develop Toolkit (July - Dec 2015)
  - Roll out at regional workshops (2016)
  - Pilot the Toolkit in two countries (2016-17)

Thank you

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