



Energy Sector Management
Assistance Program

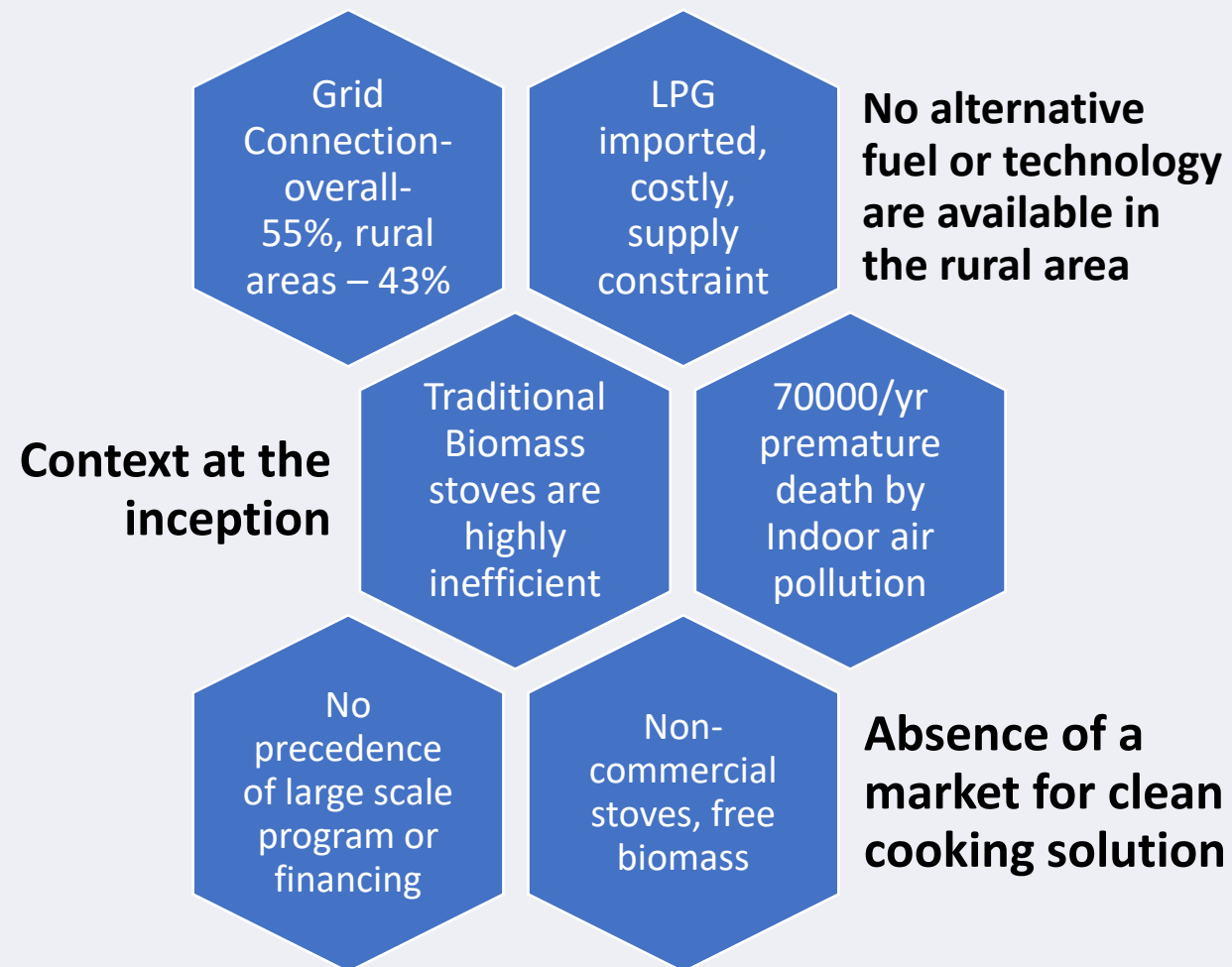


CCF Webinar No. 2

Delivering at Scale: Bangladesh Improved Cookstoves (ICS) Program

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December 15, 2025

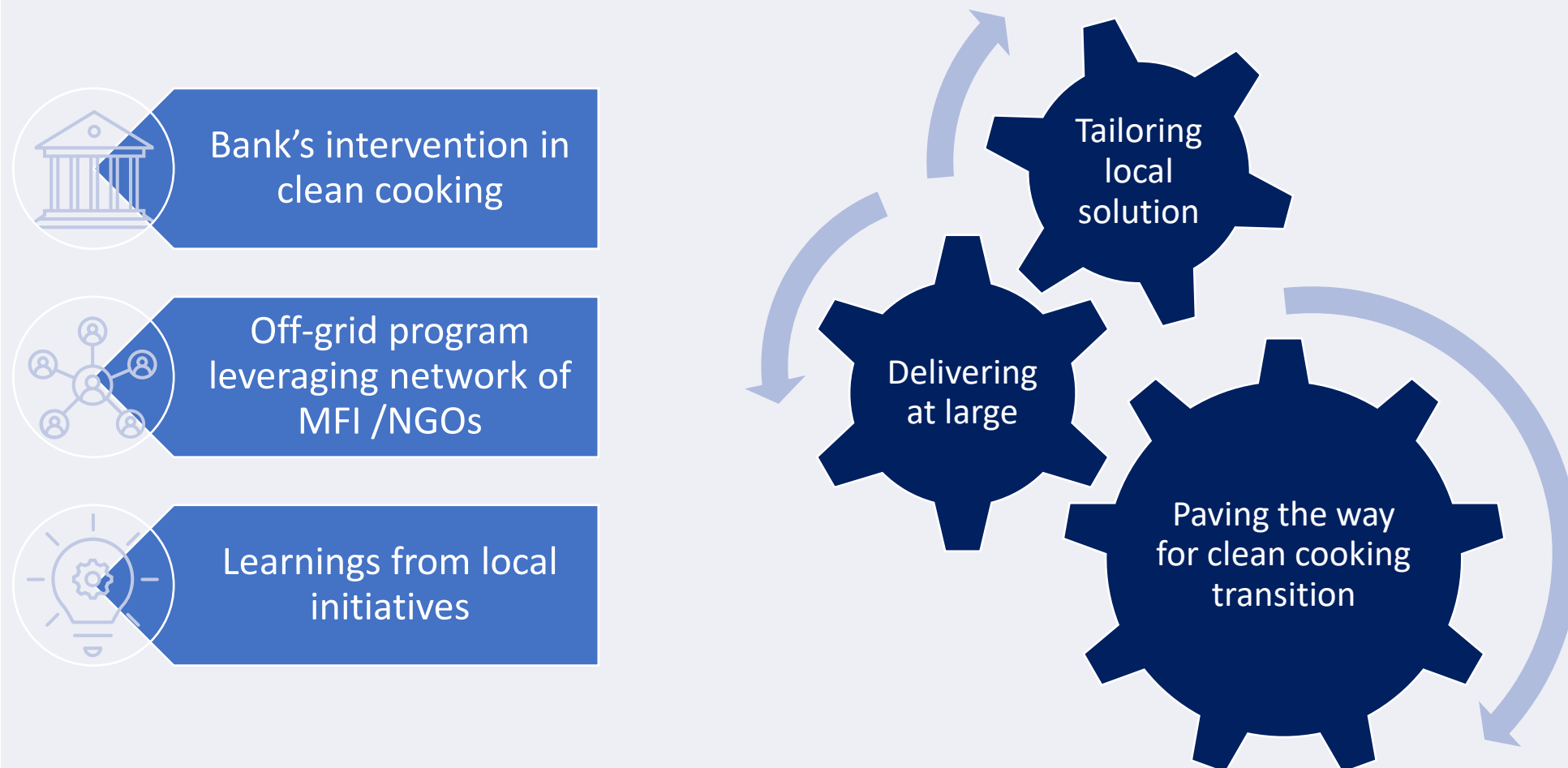
Bangladesh ICS Program (2013-2023) replaced 4.2 million low efficiency traditional biomass stoves with higher efficiency stoves in the rural areas of Bangladesh under Rural Electrification and Renewable Energy Development (II) Project (P131263)



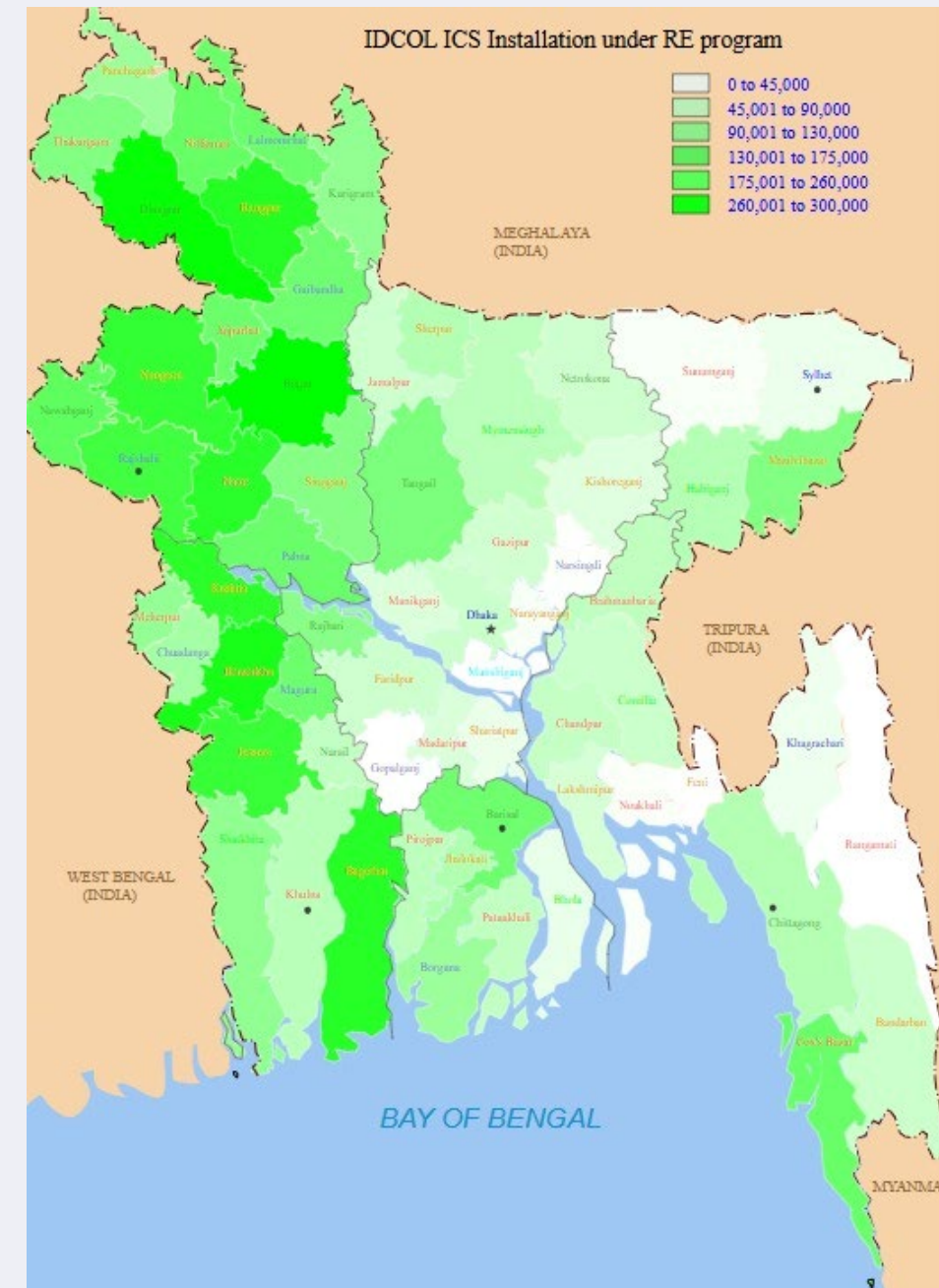
PIONEERING PROGRAMMATIC MODEL

One of the first World Bank Financed Clean Cooking Program of its scale,
one of the first GCF co-financing

Built on Market Based Mechanism and Result Based Financing



Bangladesh ICS Program



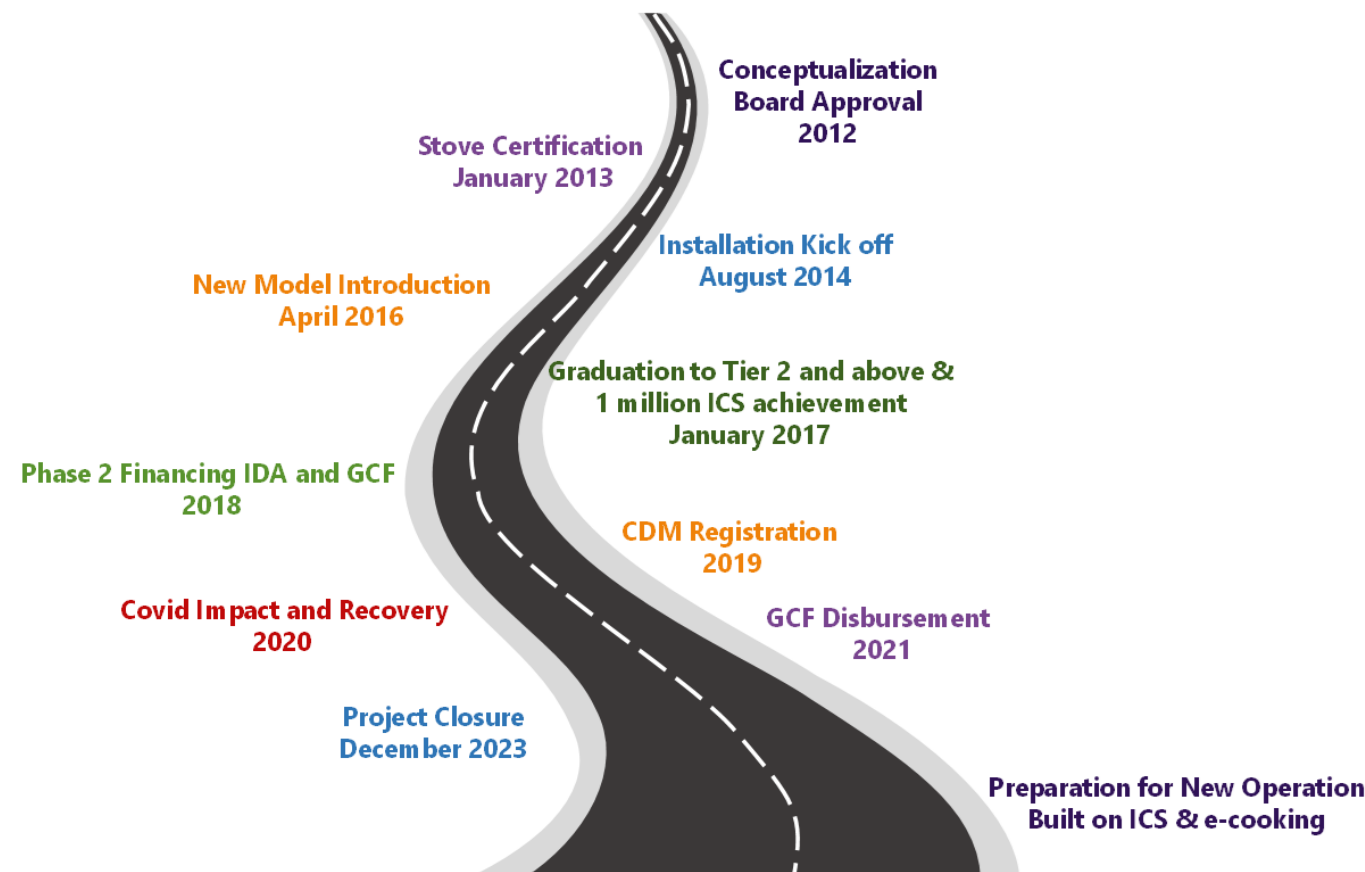
IMPLEMENTATION TIMELINE

Bangladesh ICS Program

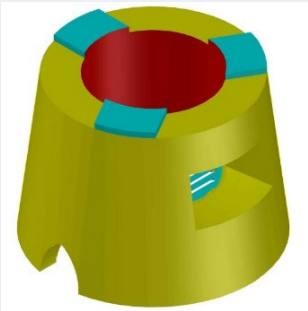
The Program supported efficiency improved to Tier 3 whereas back In 2013, only Tier 1 stoves were available in Bangladesh as ICS

Features of the models developed

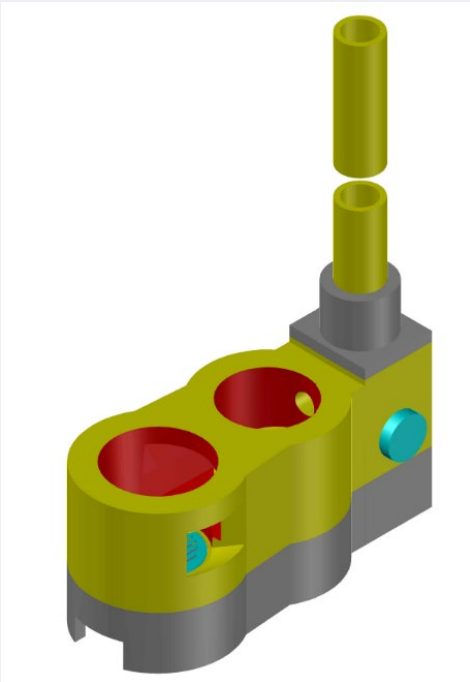
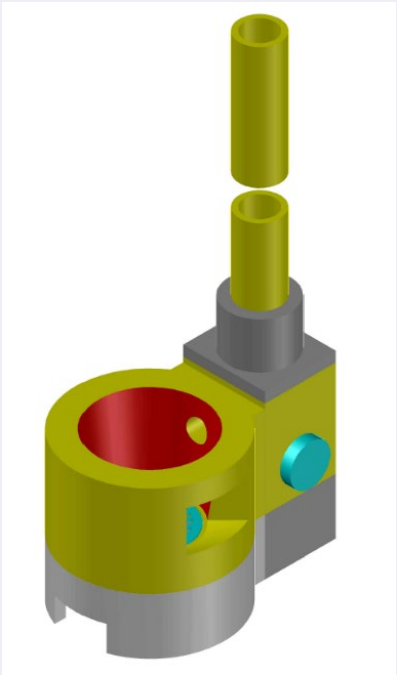
- ✓ Low-cost stove models
- ✓ Congruent with prevailing cooking style and fuel types
- ✓ Produced in decentralized facilities using local resources.
- ✓ Fuel Savings: >50%
- ✓ Suitable for country biomass mix: 61% fuel wood & 39% fluffy fuel
- ✓ Payback Period: 2 to 7 months



STOVE IMPROVEMENT INTERVENTION



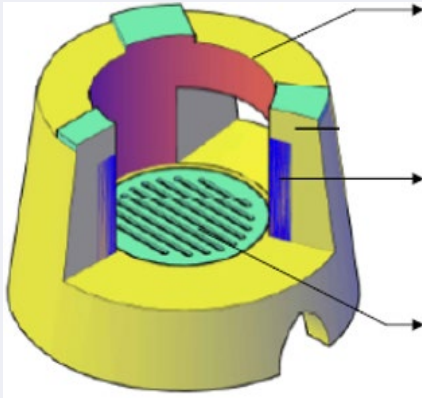
Three most popular stoves under the Program
Thermal Eff. 36% -40%



ISO Stove Efficiency Tiers	
Tier 0	< 15%
Tier 1	≥ 15% and < 25%
Tier 2	≥ 25% and < 35%
Tier 3	≥ 35% and < 45%
Tier 4	≥ 45%



Tier 1 Portable Stove
Thermal Efficiency: 21%



Modifications under IDCOL's R&D Initiatives

- Metallic Lining
- Rockwool Insulation
- Air Inlet Optimization



Tier 3 Portable Stove
Thermal Efficiency: 36%

KEY OUTCOMES

Bangladesh ICS Program

~\$10
Average
investment/HH

~\$2.73
Cost per tCO₂e
reduced

1.54 t/yr
Biomass saved/HH

1.22
tCO₂e/yr
GHG reduced per ICS

**100% Investment by the local
beneficiaries in purchasing
the stoves**



15 MILLION tCO₂e
Lifetime GHG Savings



4.2 MILLION
Stoves Installed



USD 14.5 million from GCF
USD 28 million from IDA



68%
Biomass Savings

96%
Adoption Rate



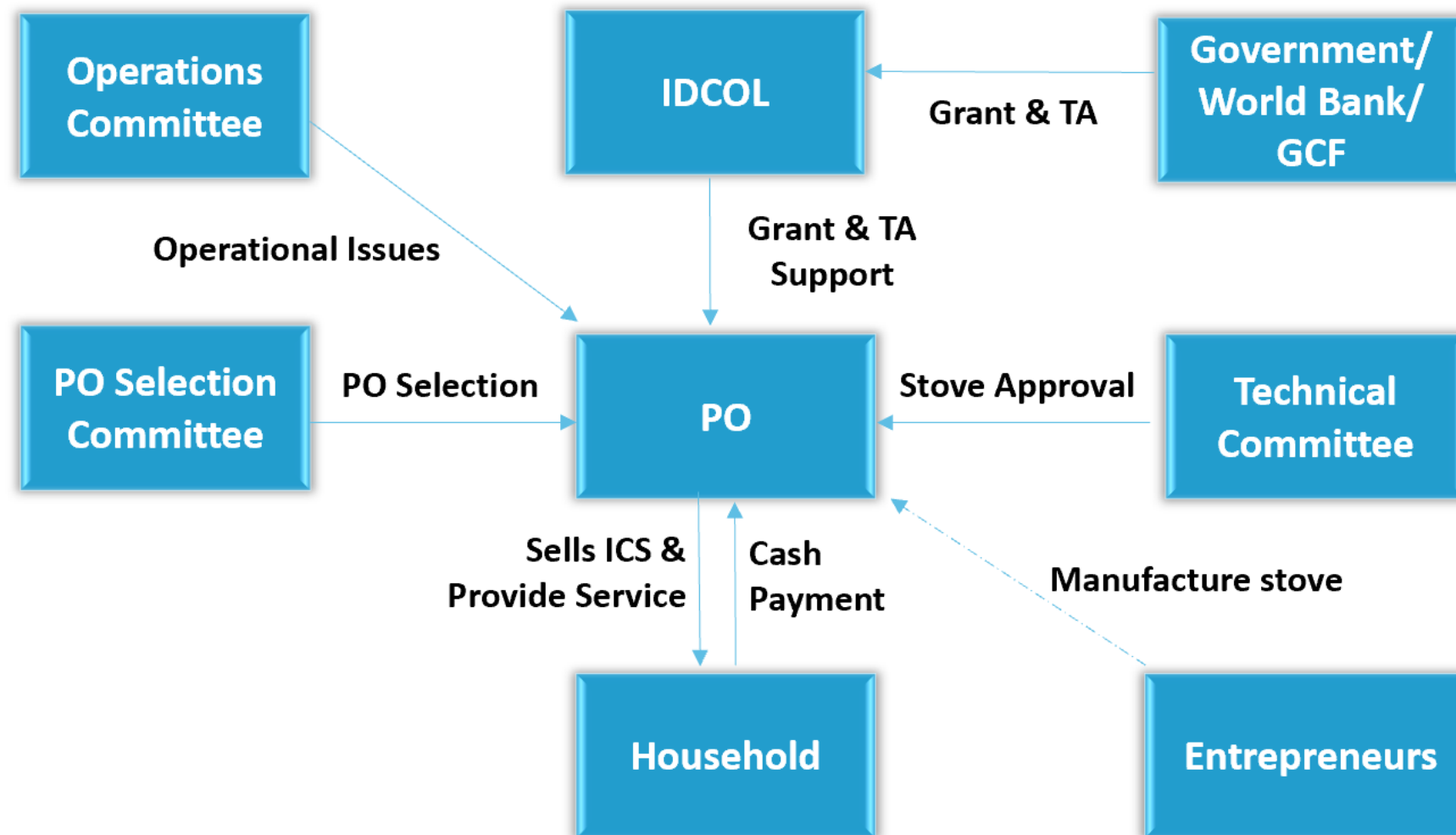
5,260
Trained
Professionals



**76 Partner
Organizations**
Covering 61 out of
64 Districts

PROGRAM STRUCTURE

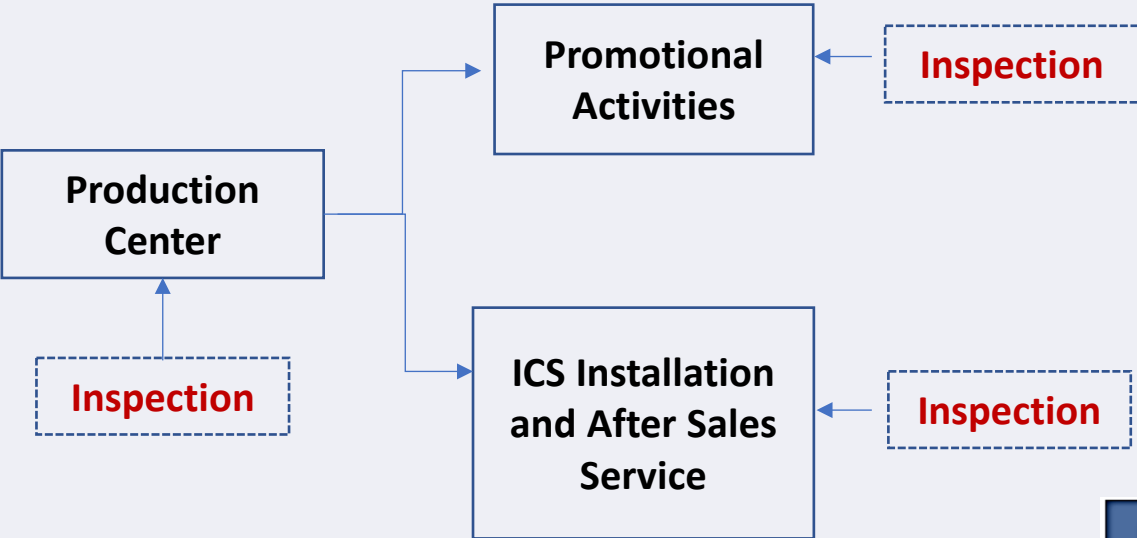
Bangladesh ICS Program



Key Features

- ✓ PO Selection Process
- ✓ Stove Selection Process
- ✓ Role of IDCOL and PO in National Awareness Building
- ✓ Cluster Based Approach
- ✓ Independent Technical Committee
- ✓ Performance Review

QUALITY CONTROL



- ✓ 30% Inspection by a monitoring team of 89 Inspectors from 14 Regional Offices
- ✓ The Disbursement were made against the sales after completing the verification

- ✓ ICS program is registered under CDM in October 2019
- ✓ So far, 1.78 million CERs have been issued for ICS

ICS PO SYSTEM

Welcome Integrated Village Development Society (IVDS)! [Login]

Installation Entry Resubmission Entry View Installation Information Disbursement Operation View Report

Reference Number: -

After Installation Entry

Aggrement Code: *Provide an aggrement code to search an entry*

Survey Reference Number:

Customer Name:

Gender: ☒ Male ☐ Female

No. of Family Member: (M) (F)

Village:

District:

Union:

Price of ICS:

Date of Installation: dd/MM/yyyy

ICS Type:

Type of Roof:

Type of Fuel:

Disbursement No: 9

Father/Husband's Name:

Contact Number: ☐ Is request number

Post Office:

Upazilla:

Branch Name:

ICS Number: -

Name of the Technician:

Installation Type:

Chimney Installation Type:

Type of Grate:



HEALTH IMPACT

Study conducted by Berkeley Air Monitoring Group (BAMG) & International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B) in March 2022



3,000 averted deaths and 82,000 Averted Disability Adjusted Life-Years (ADALYs)



Kitchen Concentration of PM_{2.5} and CO reduced by 57% and 86% respectively;



Personal Exposure of PM_{2.5} and CO reduced by 31% and 86%

Bangladesh ICS Program



LESSONS LEARNT WAY FORWARD

Bangladesh ICS Program



Local fit



Flexibility
in design



Invest in
people



Cookstoves to
clean cooking



Energy
landscape



Business
prospect



THANK YOU

