



IDCOL Solar Home System Program



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IDCOL Solar Home System Program

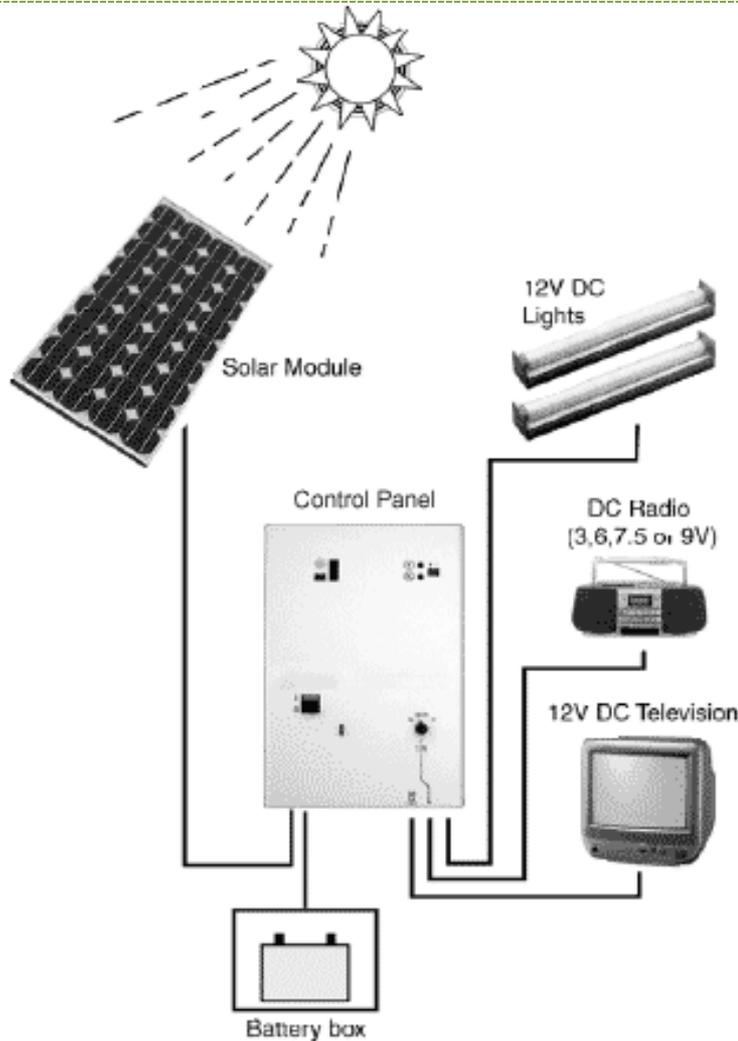


IDCOL is a state-owned development financial institution dedicated to promote/finance infrastructure and renewable energy projects in Bangladesh.

IDCOL Solar Home System Program:

- What is a Solar Home System?
- Program at a Glance
- Program Structure
- Fund Flow and Role of Partners
- Financing Structure
- Quality Control Mechanisms
- Challenges & Mitigations
- Replicability Potential

What is a Solar Home System (SHS)?



Capacity	Appliances	Operation
20Wp	Lamp: 2 Mobile Charger: 1	4-5 hours
50Wp	Lamp: 4 B & W TV: 1 Mobile Charger: 1	4-5 hours
85Wp	Lamp: 9 B & W TV: 1 Mobile Charger: 1	4-5 hours

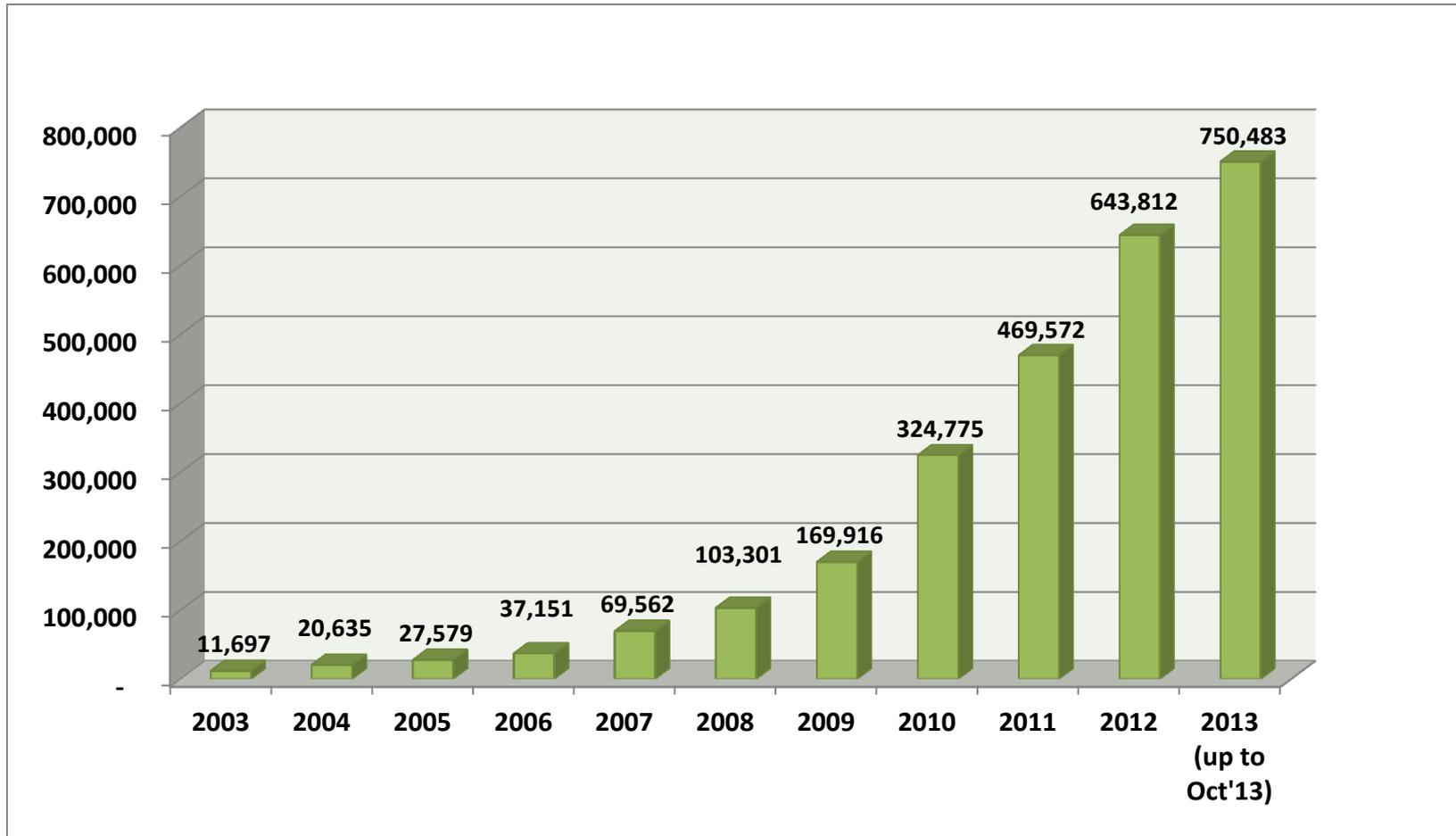
Equipment	No. of approved Suppliers
Solar Panel	86
Battery	15
Charge Controller	47
CFL Lamp	26
LED Lamp	31

IDCOL SHS Program – at a Glance

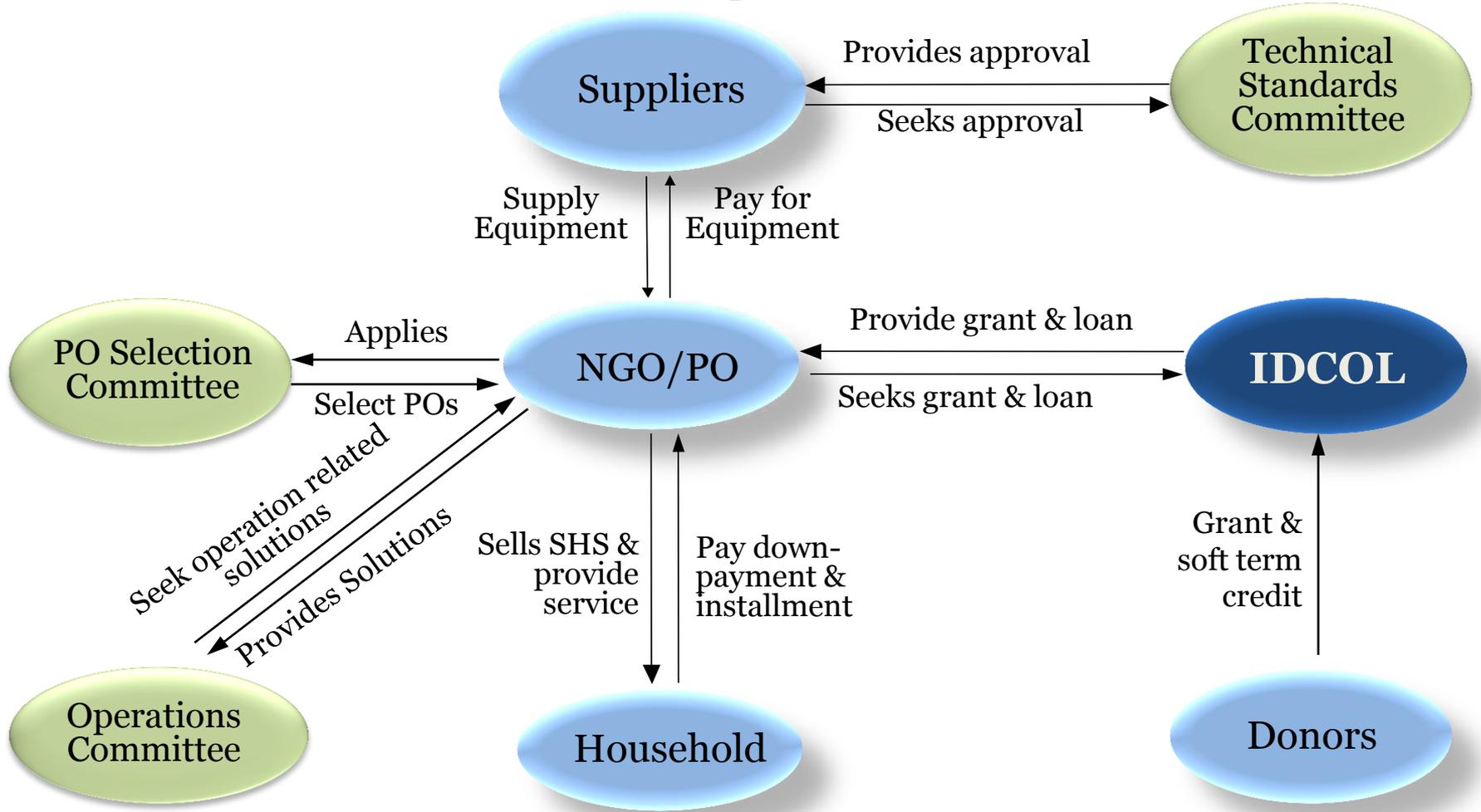


- Program Target : 6 million SHSs by 2016
- Program Achievement : 2.6 million SHSs till October'13
- Number of Beneficiaries : About 12 million people
- Power Generation : About 110 MW
- Fossil Fuel Saving : 250,000 ton/year
- Subsidy Saving by Govt. : USD 37 million/year
- Direct Job Creation : 30,000 people
- IDCOL Investment : About USD 550 million

Year wise SHSs installation



Program Structure



Mode of Financing: an Example



(a) Market Price of a 50 Wp SHS	USD 420
(b) Buy-down Grant	USD 0*
(c) System Price for Household [(b)-(a)]	USD 420
(d) Down Payment from Household to PO [15% of (c)]	USD 63
(e) Loan Payable from Household to PO [(c)-(d)]	USD 357
Loan Tenor	3 years
Annual Interest Rate	12% p.a.
Monthly Installment Amount	USD 12
(f) IDCOL Refinance [70% of (e)]	USD 250*
Loan Tenor	5~7 years
Interest Rate	6~9% p.a.

A Sustainable Financing Structure



Phased -out Subsidy:

	2003	2004~5	2006~7	2008~9	2010~11	2012	2013~14
Capital Buy down Grant	\$70	\$55	\$40	\$40	\$25	\$25	\$20*
Institutional Development Grant	\$20	\$15	\$10	\$5	\$3	-	-

* For systems < 30wp only

Concessional to Semi-Commercial Credit:

	2003~8	2009	2010	2011	2012	2013	2014
Loan Tenor	10 yrs	6-10 yrs	6-8 yrs	6-8 yrs	5-7 yrs	5-7 yrs	5-7 yrs
Interest Rate	6%	6%-8%	6%-8%	6%-8%	6%-9%	6%-9%	6%-9%
% of Loan Refinanced	80%	80%	80%	80%	70%-80%	70%	70%

Quality Control Mechanisms

Physical Inspection



No. of Quality Control Offices: **12**
No. of Quality Inspectors: **130**
No. of Field Auditors: **11**

Training and Capacity Building

Type of Training	Participants	Trained so far
Training of Trainers	PO Officials	389
Staff Training	PO Field Staffs	13,157
Customer Training	Households	395,117
Technician Training	Local People	1,529
Management Training	PO Officials	129

Dedicated Call Center



Quality Equipment

TSC requires the suppliers to provide minimum 20-year warranty for solar PV, 5-year for batteries and 3-year for charge controllers / lamp circuits.

Challenges & Mitigations

Challenges	Mitigation
Lack of awareness	<ul style="list-style-type: none">– Promotional campaigns– Training programs
Untested business model	<ul style="list-style-type: none">– Social enterprise model with an ultimate goal of commercialization– Presence of multiple POs ensures healthy competition– Phased reduction nature of grant
Lack of institutional capacity	<ul style="list-style-type: none">– Institutional development grant / Long-term concessionary credit– Staff training program
High cost of SHS equipment	<ul style="list-style-type: none">– Capital buy-down grant / Concessionary credit facility– Local support industry development
Lack of quality assurance	<ul style="list-style-type: none">– Technical standard committee– Quality control mechanisms by IDCOL
Lack of fiscal support	<ul style="list-style-type: none">– Tax holiday– Duty free import

Replicability Potential

Following IDCOL's success in the renewable energy dissemination, other developing countries are keen to replicate similar programs in their respective countries.



IDCOL provided knowledge support to a number of African countries including Uganda, Sudan, Ghana, Ethiopia, Guinea & Sub-Saharan Countries





Thank You



Q & A



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