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राष्ट्रीय
आवास बैंक
NATIONAL
HOUSING BANK

A Presentation on
Aam Aadmi Awas
to
National Advisory Council

S. Sridhar, CMD, NHB
New Delhi
July 17, 2007

Gurudev on Housing



“Long did I cherish a desire, neither for wealth nor fame,
but a tiny house tucked away in a corner of the earth,
where I could be with my thoughts. ”

Rabindra Nath Tagore

Presentation Outline



- National Common Minimum Programme
- Aam Aadmi Awas : The Concept
- Benefits and Resources
- Technology
- Way Forward

National Common Minimum Programme



- Announced by UPA Government in May 2004
- Mandate for “... daily well being of the common man across the country”
- Committed to a massive expansion of social housing in urban areas, particularly slum dweller
- Expansion of housing for the weaker sections in rural areas
- Urban and semi-urban poor to be provided housing near their place of occupation

NCMP and Financial Inclusion



- Financial Inclusion is defined as the provision of basic financial services at affordable cost
- More than 50% of the country is financially excluded
- RBI leading drive on financial inclusion
- NCMP and financial inclusion are congruent
- Housing is a tool for poverty alleviation

Urbanisation and Housing



- India transiting to an urban society
- Urban population 285 million in 2001 (28%) of total; increasing to 360 million (30%) by 2010; 410 million (32%) by 2015
- 36% would be urban population by 2025
- Need to promote in-situ urbanisation
- For the poor, housing is more than mere shelter; it is a production platform for home based workers, mainly women

Housing for the Poor : Major Constraints



- Availability of serviced land with clear title
- Access to basic infrastructure
- Technology, including durable & cheap building materials and appropriate need based design
- Adequate and affordable credit
- Supportive regulatory, legal framework

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Housing Shortage & Funds Required



- As per Census, 2001
 - Total Housing Shortage 24.7 million dwelling units (d.u.)
 - Rural 14.1 million d.u.
 - Urban 10.6 million d.u.
 - Including obsolescence and congestion 31.0 million d.u.

- NHB's estimates for the Eleventh Plan Period (2007-12)

Total Housing Requirement \approx 45 m d.u.	Poor/EWS/LIG Requirement \approx 31 m d.u. (i.e. > 70%)
Investment Required \approx Rs.10 lakh crores	Investment Required > Rs.4 lakh crores
Market addresses middle/upper segment	Govt. intervention required for lower segment

- Assuming 50% of low income segments requirement is addressed in Eleventh (XI) Plan, and cost of houses, including land is Rs.1.35 lakhs
- Requirement of Investment for EWS/LIG – Rs.2,00,000 crores over 5 years i.e. Rs.40,000 crores/year.
- Construction of 15 million houses in XI Plan i.e. 3 million houses per year, a veritable quantum jump.

Housing Performance : At a Glance



Population, Household and Housing Situation (in million)

	Population		No. of households		No. of houses used for residential purposes	
	1991	2001	1991	2001	1991	2001
RURAL	628.7	743	111.54	138.27	108.5	135.1
URBAN	217.6	285	39.49	53.69	38.5	52.0
TOTAL	846.3	1028	151.03	191.96	147.0	187.1

Source: Census Reports on Houses, Household Amenities and Assets

Percentage of Households living in different houses

	Pucca Houses		Semi-pucca Houses		Katcha Houses	
	1991	2001	1991	2001	1991	2001
RURAL	30.6	41.1	35.6	35.6	9.6	5.3
URBAN	72.7	79.4	17.7	15.4	33.8	23.2
TOTAL	41.6	51.8	30.9	30.0	27.4	18.2

Conditions of Houses

	Good	Liveable	Dilapidated
RURAL	44%	48%	8%
URBAN	64%	34%	2%
TOTAL	50%	44%	6%

Housing Shortage (in million)

	NBO and MH&UPA	1981	1991	2001
RURAL		16.3	14.7	15.8
URBAN		7.0	8.2	8.9
TOTAL		23.3	22.9	24.7

NHB : An Overview ...



- Setup by an Act of Parliament, viz. The National Housing Bank Act, 1987
- Commenced its operations on 9th July, 1988
- Wholly owned subsidiary of Reserve Bank of India
- Broad based Board from Reserve Bank of India, Government of India, State Governments, Experts in the field of Architecture, Economics, Housing Finance
- Apex financial institution for housing in India and activities include



... NHB : An Overview



- Seek to develop and expand housing finance system to address housing shortage
- Focus on catalyzing institutional credit for the unserved and underserved
 - Market Development
 - Rural Housing
 - Urban Renewal
 - Capacity Building and Technical Assistance
- Introduced Reverse Mortgage product for the first time in the country.
- Developed guidelines for Mortgage Guarantee Company since put out as draft by Reserve Bank of India
- NHB RESIDEX : Country's first official residential property index was formally launched by Hon'ble Finance Minister
- 'Certified Independent Mortgage Counsellor' system developed to be introduced shortly
- Launching a Joint Forum of Mortgage Lenders – first time in the country

Aam Aadmi Awas : Concept



- Low-cost house of about 25 sq. m. area within Rs.1 lakh (excluding land cost) on a national scale to
 - provide an affordable house to weaker sections
 - generate employment through scale
 - give fillip to local economies
- Bring home ownership within the reach of Low Income Group (LIG) i.e. monthly income of Rs.7,300/-
- May moderate the spiralling house prices
- Akin to what MARUTI did in '80s with its 800cc Car and TATA attempting with Rs.1 lakh Car project.

Aam Aadmi Awas : Objectives



- To mitigate housing requirements for low income segments by about 50% during Eleventh Plan Period (2007-12)
- To provide affordable houses with reasonable quality of life (with a separate kitchen, toilet and a multi-purpose room) for the poorer sections of society, particularly in urban and semi-rural areas
- To demonstrate that such low cost houses are feasible technically and viable financially
- To develop templates to serve as guides for private/public sector players to design and construct houses
- To catalyze the banking sector to finance low cost housing

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Aam Aadmi Awas : Benefits



Additional Employment Generation

(Assuming a Rs.1 lakh house generates 300 man days employment- a study by NCHF)

- Generation of 1.9 billion man days i.e. 1.4 million jobs/year
- Reducing unemployment rate to 7.5% by 2012 from the present level of 7.8% (2006).

Additional Income Generation

(Income Multiplier as per IIM, Ahmedabad study (2000) = 4.7098)

- Generating of Income of about Rs. 9.42 Lakh Crores in the economy
- Increasing per Capita Income to about Rs.30,530 by 2012 from the present level of Rs.29,069 (2006-07).

Additional Investment in Building Material Industries

(Backward Linkage = 0.4870; Total Linkage = 1.2581 - as per IIM, Ahmedabad study in 2000)

- Investments due to Backward Linkage Effect - Rs. 97,400 crores
- Investments due to Total Linkage Effect - Rs. 2,50,000 crores
(Forward and Backward)

Aam Aadmi Awas : Financing Aspects



- Construction finance required for developers, usually small, medium and local for building Aam Aadmi Awas. State Housing Boards may also do so.
- Construction finance during XI Plan required Rs.150,000 Crores.
- Housing loans to LIG/EWS individuals Rs.200,000 Crores i.e. Rs.40,000 Crores per year.
- Individual housing finance will 'take out' Construction finance.
- Represents <10% of Non-Food Gross Bank Credit disbursed in 2005-06. Hence, doable, if banks are incentivised.
- RBI will need to consent.
- State Housing Boards need to be activated for LIG/EWS housing

Interest Subsidy Scheme for the Urban Poor



- NHB's proposal for an Interest Subsidy of 5% p.a. for 5 years on housing loans from banking system to urban poor is under favourable consideration of MHUPA.
- In the nature of Viability Gap Funding.
- Such Interest Subsidy is conceived to be equitable vis-à-vis the higher income tax payer , who enjoys tax deduction on housing loans.
- Annual Interest Subsidy is estimated at ₹ 3% of total subsidy bill of GOI.
- A Rs.1 lakh loan with interest subsidy will result in repayment outgo of < 15% of monthly income of the LIG/EWS borrower.
- Thus, **AAA** Programme financing by banks with Interest Subsidy Scheme is feasible from funds availability and individual affordability.

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AAA : A Multifaceted Approach



- To develop templates for Rs.1 lakh house,
 - a re-look at alternative building materials, design of houses, technology
 - examining the idea of 'MANUFACTURED HOUSES' as distinct from conventional 'BUILT HOUSES'
- Providing a house having a minimum plinth area of 25 sq.m. (National Building Code of India, 2005 of BIS)
- Planning of projects on low rise, high density basis i.e. ground + 3 levels
- Achieving economy of scale i.e. 2000 to 3000 houses/place
- Using alternate/local building materials, which are economical – machine made bricks, particle boards, PVC products, ...
- Utilization of environmental friendly building materials from industrial/agricultural wastes – fly ash, stone dust, wood chips, ...
- Adoption of economical construction systems – partial pre-cast systems, manufactured houses, ... etc.

Cost Reduction Measures



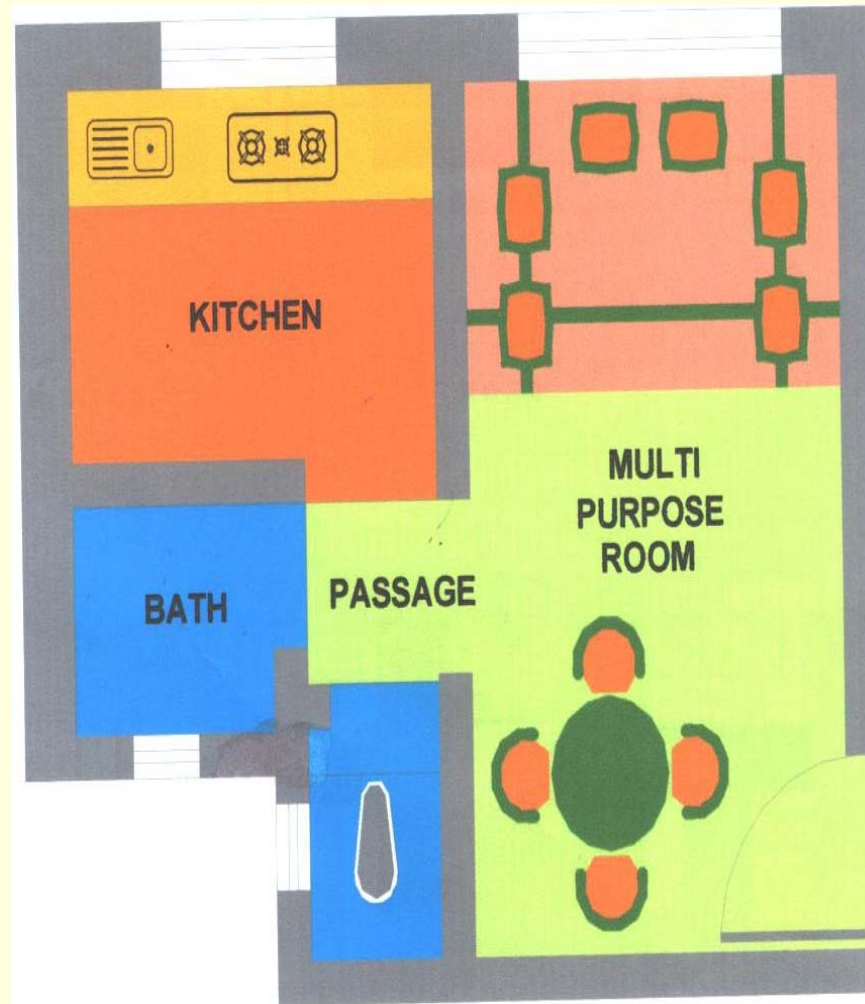
- **Dwelling Unit Design**
- **Choice of Technology**
- **Cost Efficient Building Materials**

Dwelling Unit Design



- Spatial planning and coordination to be functional & optimum as per National Building Code
- Local building by-laws to be flexible in terms of FAR, Ground coverage, height restrictions, etc.
- Planning to start at settlement level like Row Housing
- Maximum common walls and minimum common circulation (i.e. Staircase, etc) be encouraged
- Common septic tank and water storage to be explored

Design Option I (250 sq. ft.)



Design Option II (380 sq. ft.)



SPECIFICATIONS:-

Code No. : PF-HU-SP-387

Built up area : 387 Sq.Ft.

Overall size : 6m x 6m x 2.4m (H)

Walls : Sandwich panel with suitable structural element.

Roof : Sandwich panel with suitable structural element.

Doors : PVC / FRP door

Windows : PVC / Press steel

Floor : Knocked down flooring/
Optional : conventional flooring.

Colour : Light grey / Off white

Plumbing /
Electricals : As per standard engg. practice.

Technology in use for Housing



- **Site-Built Technology**
 - Monolithic construction with modular framework.
 - Use of materials like Brick Masonry, Hollow block with filler slab, Cellular light weight concrete, Fly ash bricks etc.
- **Prefab Technology**
 - Pre-cast component based system
 - Pre-engineered Building system
 - Pre-stressed concrete panel system
- **Combination of Site-Built and Prefab techniques**

Criteria for choice of technology



- Simplicity in execution
- Quality of construction
- Durability
- Economy
- Speed of execution
- Minimum skilled workforce requirements
- Energy conservation
- Eco-friendly
- Minimum maintenance efforts & cost
- Earthquake resistant

Choice of Technology



Housing Technology (For both Rural and Urban areas)	Approx Cost (Rs/Sq.m)	Space utilisation ratio (Carpet area/ Built up area)
Bamboo and Mud technology	1,500-1,700	0.72
Compressed stabilised earth block	2,000-2,200	0.72
Hollow block masonry with filler slab	3,800-4,200	0.76
Brick masonry with RCC slab	4,300-4,700	0.72
Fly ash brick masonry with RCC slab	4,400-4,800	0.72
In-situ wall with pre-cast RCC joist & slab	4,500-5,000	0.76
Prefab house with RCC frame & wall panels	4,800-5,200	0.82
Prefab house with Steel frame & wall panels	5,000-5,300	0.91
Monolithic construction with modular plastic formwork	5,000-5,500	0.88
Monolithic construction with modular Aluminum formwork	5,200-5,700	0.88

Source : CEPT, Ahmedabad

Decision Matrix for Technology adoption



Appropriate Technology	Ranking
Monolithic construction with Plastic formwork	1
Monolithic construction with Aluminum formwork	2
Hybrid construction with in-situ wall and precast slab	3
Prefab RCC frame with RCC walls	4
Prefab steel frame with wall panels	5
Prefab RCC frame with wall panels	6

Building Materials for Housing for Poor



- **Stabilised Clay blocks, Modular bricks, Fly ash bricks**
- **Rice husk ash cement, Portland Fly ash cement**
- **Asbestos cement sheet, Building pipes, insulation board**
- **Gypsum plaster, Fibrous Gypsum board**
- **Lightweight aggregate concrete having cinder, foamed slag, sintered fly ash aggregate as constituents**
- **Cellular concrete or Foam concrete as blocks, slabs, beams and panels for roof and floor**
- **Lime and Lime Pozzolona – Lime mixed with sand is used for mortar and for manufacturing sand-lime bricks**
- **Wood, saw dust and coir waste are used to produce fiber boards, particle boards, wood wool boards and corrugated roofing sheets**

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AAA : Action Taken by NHB



- Concept mooted by CMD, NHB and discussion held with real estate industry, academia, professionals
- NHB organized a Technical Workshop in November, 2006
- Concept Note sent in January, 2007 to GOI, MHUPA, under study by BMTPC
- Committee on Housing Finance constituted by MHUPA chaired by CMD, NHB to consider finance for housing for the poor
- Mapping of EWS/LIG housing finance needs done by NHB thru Monitor in economic consultancy organisation
- USAID sponsored study on financing solutions for EWS housing underway
- Internal Technical Studies being done by NHB

AAA - Next Steps : Some Suggestions



- National Task Force be created to be headed by an eminent personality with members drawn from Government, Academia, Construction Industry, Civil Society, RBI and NHB
- Task Force may be converted into a permanent promotional body on the lines of CDOT say, Society registered under Societies Registration Act
- To oversee implementation of the Programme in the Country suitably prioritised
- AAA may be conferred Mission Status
- Model houses be built within 2 months and displayed say, in Pragati Maidan, New Delhi with extensive coverage on TV for the poor to view
- Organise National Convention on AAA
- States to be encouraged to earmark land for AAA
- States may incentivise private sector through PPP, Transferable Development Rights, Stamp Duty waiver, etc.

“ It is better to have loved and lost
Than never to have loved at all ”

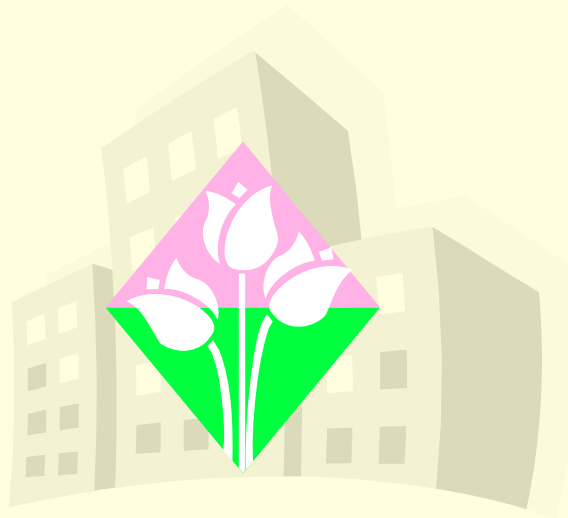
- Alfred Lord Tennyson

It is best to have loved and won

National Housing Bank



Serving the unserved and underserved



Thank You

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