Systemic Interventions to Support the Access of Rural Poor to Safe and Sustainable Housing – Awareness, Action and Advocacy for a Responsive Policy Environment

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ABSTRACT:

Building resilience in the face of increasing frequencies and intensities of disasters has become a major challenge of the 21st century. South Asia's people, a majority of them living in rural areas have to face this challenge within a context of large development deficits increasing their vulnerabilities manifold. A durable, safe and sustainable habitat is a manifestation of a resilient society. However, shelter-less-ness has been a bane of our societies, and each of the South Asian countries is grappling with the multiple challenges of an increasing housing gap due to population pressure, poverty that reduces the access of poor to quality housing and recurrent disasters that continue to cause large scale damage to life and habitats. Increasing resource constraints leading to negative environmental impacts of development further add to the burden.

In India, rural housing has been viewed by public policy through the lens of 'social housing' alone. The public sector in the first sixty years of independence focussed on financial assistance to the poor to build houses for a targeted poor and vulnerable population through the flagship programme / scheme called the 'Indira Awas Yojna' (IAY). The Yojna, one of the most popular public welfare schemes is also a highly debated scheme in its implementation. It has paid limited to no attention to the systems of materials and technologies, skill development, knowledge and related aspects that are necessary to ensure quality and durability of the assets being created in a sustainable manner. Despite policy intent to be 'home-owner' led, the scheme has made no provisions to **enable** home-owners to build safe, durable and environmentally responsive homes.

basin-*South Asia*, a regional knowledge platform comprising like-minded organisations from across South Asia working on issues of rural habitat has promoted the various interconnected facets of environmental soundness and safety in construction through appropriate technology, improved skills, local entrepreneurship, innovative financing and decentralised delivery of housing to respond to the rural housing problématique. The **basin**-*South Asia* platform, through research, demonstration, awareness building and advocacy, worked with civil society, government and businesses in the last decade to bring forth the value of a 'systemic approach to rural housing' in India. This approach views rural housing as a sub-system of the rural eco-system. It acknowledges the diversity and disaggregated nature of rural settlements and the potential of the rural market. It builds on a fundamental understanding that rural housing is an incremental process and is closely integrated with people's aspirations for a better quality of life and social mobility. The approach recognises that we live in an increasingly resource constrained, disaster prone and interconnected world. New materials, knowledge and skills and innovative delivery mechanisms are critical components of the solution. While targeted assistance for the poor is necessary to enable them to access available solutions, sustainability of the delivery solution will require a much more integrated approach. Demand creation and ownership through credit support, local entrepreneurship, awareness and technical guidance along with necessary checks and balances in the forms of standards, and regulations need to be built in to create an enabling environment that promotes 'people's processes for a safe, resilient and ecologically sustainable durable habitat'. Finally, the approach promotes the setting up of systemic supports for addressing the deficit in quality and quantity of rural housing as essential for even the siloed and targeted social housing scheme to succeed in its aim.

The paper is a narrative account of the journey of the **basin**-*South Asia* platform in India to advocate for a national rural housing policy in order to facilitate 'safe and sustainable habitat for All' in rural India and the movement in the policy environment as a result.

BACKGROUND

"When many decide to walk together off the beaten track, a new track is created for others to walk". A group of civil society organizations came together as the South Asian chapter of the **basin** (then building Advisory Services and Information Network)Knowledge Platform to lend their voice to express a collective sense of dissatisfaction with the manner in which the need for housing in rural areas was being addressed through the government machinery. Through action-research and demonstration of good practice on ground, members of **basin**-*South Asia* created evidence that has over the years provided a direction for the policy framework to develop systemic responses that would enable rural poor to access quality housing solutions.

Addressing housing shortage has been an important, as yet unachieved target for the government and the people of India. On the one hand, there an ever increasing housing gap with millions awaiting homes manifested in the "permanent wait list" of village government, on the other, millions lose homes constructed through personal toil and government support at the hands of disaster risk that has now become a reality for India. A look at the statistics validates this harsh reality. The Working Group for 12th Five Year Plan, of the Government of India noted that "at least 40 million people have housing shortage in rural India."[1] . Housing shortage is estimated to have increased at the rate of 0.89 million houses per year during 1991-2002. The same report in addition estimates that about 10 lakh houses are lost to natural disasters each year. According to government figures, on an average 20,000 houses are lost to natural hazards every year. Every year a population of nearly fifty million[2]is affected due to disasters resulting from natural phenomenon that include earthquakes, cyclones, floods, landslides amongst others incurring an indirect economic loss of worth INR 15 billion. Not only India but all South Asian countries are impacted to a large extent due to geo-climatic, social and economic vulnerabilities. These, over the past decades have worsened due to evident impacts of a changing climatic regime.

1. INDIRA AWAS YOJANA – the predominant manifestation of policy intent

The largest single response from the government of India to the need for housing in rural areas has been in the form of the centrally supported national scheme of Indira Awas Yojna (IAY). Government attention to housing for the poor can be traced back to soon after the independence of India with a programme for rehabilitation of refugees immediately after the partition. A formal village housing scheme was subsequently launched in 1957 as part of the Community Development Movement. The National Rural Employment Guarantee Programme (NREGP), in 1980 and later the Rural Landless Employment Guarantee Programme (RLEGP) in 1983 also had significant components on rural housing. In 1985-86, IAY was launched as a sub-scheme of RLEGP, and it was taken up as a sub-scheme of the Jawahar Rozgar Yojna (JRY)[3] in 1989. On January 1st, 1996, IAY was finally delinked from JRY and made an independent scheme.

IAY is currently one of the most popular schemes of the government that is implemented across the country. In addition, similar programmes have also been instituted by various state governments specifically for addressing the housing needs of marginalized people in the state such as tribal families and specific trade communities. The key components of the Indira Awas Yojna had remained more or less the same over the first 20 years of its operation with only token changes, primarily in the funding provided per household.

The core essence of the IAY is cash support for a minimum shelter classified as 'pucca' or permanent to identified and prioritized categories of rural families. It suffered (and continues to suffer) many challenges primarily due to a centralized procedure trying to fit a very diverse rural milieu. The decentralised character of rural settlements and difficult to supervise and reach rural interiors with small numbers allocated per village made delivery unviable and district level officers in many cases tried to 'deliver houses' through contractors, direct construction by village Panchayats, asking NGOs to construct houses etc. Lack of clarity on what constituted 'pucca' and how local traditional technologies and materials could be brought into the scheme resulted in standardized brick and concrete box houses being promoted across the country, with dis-satisfied home owners at a large scale. No

[1]Working group report on Rural Housing for the 12th Five Year Plan, (para 4.31, pg 86).
http://planningcommission.gov.in/aboutus/committee/index.php?about=12strindx.htm, last updated November 22nd 2013.
[2]http://habitatindia.in/disaster-response/disaster-in-india/
[3]A rural employment scheme

linkage with construction skill development meant that local skills and new potential skills and job creation were largely ignored. Cash transfers in a socially iniquitous society with leakages in the system resulted in massive corruption where the beneficiary households rarely received the entire grant entitled to them. Housing 'assistance' was interpreted at the grassroots as complete housing aid, so much so that governments at district and state level and many at the center level have tried to force fit a 'complete house' in the minimal grant available, this resulted in inadequate space, compromises on specifications and quality and most significantly on safety. The Indira Awas Yojna was also largely blind to the vulnerabilities due to natural phenomenon on people's physical assets and in most cases the social housing scheme responded after a disaster to include reconstruction in its regime not in the pre-emptive response by ensuring safety through structural strengthening, safer technology, improved skills, safe location and insurance. Another big challenge largely ignored over the first twenty years of the Yojna was ecological response. The context of rural India was rapidly changing, availability and access to bio-materials, sands, soils and stone was reduced and or monetized, local skill base was eroding and aspirations were rapidly directing new construction to more energy and resource intensities making construction more expensive and unsustainable.

It is in this context that **basin**-*South Asia* members came together to address the rural housing sector as a whole and put forth an argument that rural housing as a sector needed to be looked at 'systemically' and that public investment and public-private-community partnerships were required to create supports and services for enabling 'All' in rural society to access 'safe and sustainable' shelter. And, that guidelines, bench-marks and standards, skill base, materials and technology supply and knowledge and information base were essential to create the necessary ground conditions and housing finance for rural households was key to driving demand, in addition to 'grant assistance' to the poor.

The policy advocacy for an integrated rural housing looked at both the "whole sector approach" as well as "targeted scheme approach" so as to move forward albeit in small steps. Civil society processes led by **basin**-*South Asia,* have emphasised on bringing in measures for introducing eco-friendly and disaster safe construction at the doorsteps of home-owners. The emphasis has been to influence policies to facilitate decentralised delivery of eco-construction materials and technologies, easy access to credit and skill building in safe and sustainable construction.

2. TOWARDS A NATIONAL RURAL HABITAT POLICY FOR INDIA : A Proposal to the Government of India

A study of the then 'National Housing Policy of India, 1998' revealed that there was a mismatch between the "spirit" of the policy document and its interpretation in the field in rural areas as follows:

- The existing document, although very comprehensive, failed to address specific concerns of rural India – where more than 60% of the population lived.
- It was biased to the needs of the urban middle class and did not offer any facilitatory supports beyond "grants' to rural poor.
- It did not give any cognizance to the systemic perspective of rural habitat within the rural construction sector, thus did not establish any linkages with skills, materials supply, technical services, financing and local cultural, climatic and ecological contexts.
- It did not recognize the critical links between land, natural resource management and livelihoods of the poor within their habitats.
- Above all, it did not respond to people's inherent strengths of entrepreneurship and self-help.

There was a clear need to re-look at the National Housing Policy.

The three year long journey of lobbying for a National Rural Housing and Habitat Policy for India was driven by the objective that actions of all the stakeholders operating in the rural housing area should be guided by an overarching framework that:

- Gave primacy to the owner and therefore did not merely look at providing grant to those who were legally " below poverty line" but also the vast rural middle class that probably did not need the sops but certainly needed facilitative supports such as loans, access to sustainable materials, skilled workforce and technical guidance to build homes that lasted.
- Recognized that disaster risk and climate variability in the context of a shrinking natural resource base needs dedicated intervention to mitigate the vulnerabilities of the poor.
- Was inclusive and covered the needs of the entire rural populace as well as other stakeholders directly or indirectly engaged in rural habitat development.

The aspiration was a habitat policy that would go beyond a set of schemes to help the poor and respond to the changing context of rural India within a globalised as well as climate and resource-constrained world. It would build upon the strengths of rural India and contribute to local rural development in a sustainable manner.

In 2004, with support from the Building and Social Housing Foundation, UK and the Swiss Agency for Development and Cooperation, **basin**-*South Asia* initiated a documentation of good practices to understand what works, why and how. The document published in 2005, known as "Participatory Rural Habitat Processes: Emerging Trends", popularly called the Blue Book[4]captured rural housing initiatives both in normal and post disaster circumstance. In 2006, a "Framework for a Rural Habitat Policy for India, Responding to Needs of the Poor", popularly known as the 'Red Book'[5] written with inputs from the **basin**-*South Asia* community in India mapped strategic imperatives for a policy framework for rural habitat in India.

The success of partnerships and solidarity in this process further animated the **basin**-*SA* platform to develop a draft policy proposal in a consultative manner. The understanding of systemic measures for a people centric policy was converted into a draft policy document that was written over many sittings of the **basin**-*South Asia* India membership. This draft document was made available in nine languages to be effectively used in different parts of the country for public consultations. The Poorest Area Civil Society (PACS) Programme of Department for International Development (DFID) of the UK served as a platform for the network to reach out to people in different parts of the country for consultations. With over 50 civil society partners, the draft policy proposal document was taken to 21 states, through village and district-level public hearings, state-level and expert group discussions incorporating views of Panchayats, NGOs, banks, the corporate sector, habitat professionals, as well as district and state-level officials. Three sectoral consultations on issues of finance, universal access, technology and post-disaster reconstruction were also conducted.

The voice of the civil society in many states received a good response from the State Governments and some states requested for special sessions with their functionaries. The inputs received at the consultations were documented in written form as well as videos and regularly sent to the Ministry of Rural Development through a nodal officer coordinating the working group on rural housing policy. A national consultation was held in May 2007, where country wide inputs received from various stakeholders were presented formally to the Government of India for integration into their initiative on the Rural Habitat Policy.

3. SUPPORTIVE DEVELOPMENTS IN THE POLICY ENVIRONMENT – Some quick strides

In September 2005, the Ministry of Urban Affairs and Poverty Alleviation that had the responsibility of revising the National Habitat Policy announced a draft of the first urban housing policy for the country. Although there was no mention of a Rural Habitat Policy, a clear distinction between rural and urban habitat policy concerns was highlighted.

In parallel, a process was initiated by the Government of India to look into rural housing situation through an investigation of the rural housing programs of the Government by a Standing Committee on Rural Development of the Fourteenth Lok Sabha (lower house) of the Government of India. **basin**-*SA* members provided both oral and

[4] "Participatory Rural Habitat Processes: Emerging Trends"; by Jain, D and Niazi, Zeenat, Development Alternatives, 2005
[5] "Framework for a Rural Habitat Policy for India, Responding to Needs of the Poor"; Niazi, Z and Anand, Mona C., Development Alternatives, 2006

written evidence to the committee regarding actual success on ground and factors that were instrumental in the success. The members emphasized the need for policy support and facilitation to replicate the successes on ground. **The twenty second report of the Standing Committee on Rural Housing tabled in the Fourteenth Lok Sabha strongly recommends the formulation of a "separate Rural Housing and Habitat Policy for India".**

The nationwide consultations resulted in **the Proposal to the Government of India for the first "National Rural Housing and Habitat Policy"**. The document, presented to the Minister for Rural Development, Government of India in December 2007, found its way into the files of the Ministry of Rural Development and was used as a base paper to conduct Consultations led by the Ministry with State Governments in July 2008. The Working Group on Rural Housing for the XI Five year plan clearly recognized and put forth the need to formulate a National Rural Housing and Habitat Policy during the XI plan period, and a draft policy document which borrowed heavily from the Civil society recommendations was put up on the Ministry's website for public comments. The Annual Report of the Ministry of Rural Development for the year 2009-10 clearly indicated that they had embarked on the process of formulating a National Rural Habitat and Housing Policy after due consultations with State Governments. The draft document, along with several progressive and systemic recommendations, laid emphasis on "Environmental Conservation and Disaster Resistance" and recommended the following steps:

(i) Encourage the use of locally available materials, installation of rainwater harvesting units and eco-friendly measures.

(ii) Promote cost effective and energy saving technologies.

(iii) Pay special attention to disaster prone areas which have been identified by the vulnerability atlas of the country at varying intensities through the incorporation of disaster resistant designs in house construction.

(iv) Include disaster resistant practices in all habitat and housing schemes promoted by the government as well as Housing Financial Institutions.

(v) Organize special training programmes for masons and Panchayat presidents for hands-on experience in the construction of disaster proof houses, cost effective and environment friendly technologies.

(vi) Designate regional nodal agencies to provide advice on disaster resistant construction practices." (Government of India 2007)

(vii) Encourage community owned development for mobilization of process involving different stakeholders as role players for habitat growth.

Meanwhile, the core group of **basin-***SA* members engaged in this journey continued their work with rural communities, understanding their issues and searching for solutions. Thus continued to feed into the policy document as well as fuel the collective energy to bring about this framework that was already so close and yet far.

4. A FOCUS ON SOLUTIONS FOR LOCAL GOVERNMENTS-The Lok Awas Yatra, 2010-2012

From 2010 to 2012, the **basin**-*South Asia* knowledge Platform organized Lok Awas Yatra (people's journey for a better habitat) -a series of learning journeys across India with the intention of building a deeper understanding of good practices in eco-habitat development of rural India, **especially in relation to stakeholders involved in the actual delivery of housing and habitat solutions**. Over 420 people travelled on 14 small journey of five days each (trails) in five regions, north, south, east, west and central covering different geo-climatic zones, visiting over 60 habitat initiatives led by Panchayats ,Civil Society Organizations and state social housing programs. The Yatra highlighted the enormous potential of rural India as a market for eco-friendly habitat development. It highlighted the need for technical resources centres, local enterprise based solutions for making habitat goods and services available and the need to invest in institutional measures at Panchayat (village government) and district levels for converging action and funds to respond to housing and habitat needs in a contextually relevant manner. Most of all, it defined the institutional measures and support systems that are critical to enable home owners to be at the center of a housing and habitat intervention.

The Yatra clearly identified home owners as "customers", whether poor or rich, and the need for viable services of information, supply of 'eco'-materials and skills for safe construction and financing as key drivers for a safe and sustainable rural habitat. Two documents, as an outcome of the Yatra "Understanding Rural Habitat-lessons in Sustainability"[6]and a "Handbook on Eco-Habitat for Village Panchayats"[7] covered lessons from the *Yatras* (journeys) and present an analysis of the cross cutting systemic measures critical for the proliferation of good practices covering environmental, social and economic sustainability in habitat development.

5. CHECKING THE PULSE ON DISASTER RISK REDUCTION- A Study of the IAY in Six States

A study[8] was undertaken by Unnati and Knowledge Works, both **basin**-*South Asia* members, during June – December 2012 to understand the successes and limitations of Indira Awas Yojna with regard to perceived vulnerability to different natural hazards in the country. Through local partners, a random sample of hundred houses each in six states was covered. **Odisha** to study resilience of IAY houses to cyclones and floods; **Uttar Pradesh** to understand resilience to floods caused by Ghagra River; **Tamil Nadu** to capture the impact of the South Asian Tsunami; **Uttarakhand** to look at the possible impacts of landslides and **Gujarat** to understand earthquake safety of IAY houses. The findings of another independent study by the Centre for Sustainable Development in **Himachal Pradesh** were also integrated in the study. A total of about 600 houses were examined across the six states exposed to five different kinds of natural hazards. The field survey across the six states exposed to different disaster types unravelled some new facts and reinforced some that have been known for some time though not explored and established in a systematic manner as the pilot study. The study brought forward the challenges of

- **Unsafe location of houses and homesteads** of many IAY homes, especially exacerbated by the social vulnerability of the beneficiaries and a lack of guidelines to this effect in the social housing scheme.
- **Inadequate safety provisions in construction** as a result of choice of materials and technologies driven largely by aspirations not supported by knowledge and skills often with detrimental impacts.
- **Lack of skills, knowledge and adequate finance** resulted in inappropriate construction as supports were not available at ground level even in areas where guidelines for disaster safe construction have been issued, highlighting the inadequacy of the delivery mechanisms at the state, district and ground level.
- **Weak monitoring and evaluation system into the IAY** was also evident. In parallel, the presence of a dedicated system for monitoring quality of construction such as in Gujarat and Tamil Nadu was found to contribute immensely to the overall quality of houses especially with regard to inclusion of safety features.

The pilot study with the small sample of houses highlighted the critical role of the institutional architecture involved in delivery of social housing.

6. SYSTEMIC INTERVENTIONS FOR SAFE AND SUSTAINABLE RURAL HABITAT -Actions Initiated by basin-*South Asia* Members

Evidence collected over the last ten years from the action and interventions led by **basin**-*South Asia* members and their partners clearly indicate (as captured in various reports and documents mentioned earlier in this paper) that systemic institutional measures will be required if "safe and sustainable habitat for all" in rural areas is to become a reality. This will need structural reforms, convergence of programmes at national and state levels and investments in supply, service delivery and demand creation all with 'people and nature at the core'. The evidence clearly indicates that such measures not ensure that home owners can be in control of their housing processes but are enabled to build safer homes in sync with the realities of a shrinking resource base and increasing weather unpredictability and extreme events.

[6]Chopra, V; Anand, Mona C and Niazi, Z; Understanding Rural Habitat-lessons in Sustainability, Development Alternatives and Rural Housing Knowledge Network, 2012

[7]Niazi, Z and Anand, Mona C; Handbook on Eco-Habitat for Village Panchayats, Development Alternatives and Rural Housing Knowledge Network, 2012

[8]Anand, M.C (Knowledge Works), Kapur, R (Cohesion Foundation), *Strengthening Community Capacities on Disaster Risk Reduction in Rajasthan and Gujarat , Evaluation Report*; Unnati, May 2011

Initial studies of the housing interventions by **Gram Vikas**, a **basin**-*South Asia* partner, clearly indicate that investments in safer construction led by people using improved technologies led to far fewer fatalities and asset loss as a result of a natural disaster such as the super cyclone of 1999[9].

The **Development Alternatives** team, another **basin**-*South Asia* partner worked with CARE and supported a local system of materials, technology and skills supply: the **Ashraya** Initiative with CORE, a civil Society Partner in the post Orissa Super Cyclone reconstruction phase. Ashraya, popularly known as the '**Building Materials and Services Bank**' has continued to provide silks and materials for Indira Awas Yojna and other construction activities including financed housing initiatives in Coastal Orissa,. Twelve years later, rapid assessments after Cyclone Phailin of 2012 indicate that housing created through Ashraya initiatives have largely remained unaffected and are robust, justifying the case for investments in technical know-how, materials and skills.

Gram Vikas[10] was one of the first members of the **basin**-*South Asia* membership to discuss the idea behind the community owned habitat development. During one of their field experiences operating in the Ganjam area of Odisha, they came across a village which was totally wiped out due to a fire hazard in year 1992. Financial assistance came from CAPART as grant for reconstruction of the whole village. Gram Vikas helped the community to rebuild pucca houses with a community led approach where the materials were procured in bulk and construction was done on site for all the households. This not only became cost effective, but it helped generate income for the local masons. While the project was progressing, other villagers approached Gram Vikas for construction of their own houses. Subsequently clubbed with the Rural Health and Environment Programme (RHEP), Gram Vikas introduced the 'All or None' approach for construction of toilets, bathing rooms and piped drinking water facilities in rural Orissa. Evidence indicated that habitat development led to enhanced dignity, reduced burden of recurring expenditure, improved health, and augmented local skills and incomes. The Gram Vikas experience further demonstrated that even the poorest people were willing to pay for what they came to consider as essential needs and services. They no longer wait for grants or subsidy driven schemes to reach them.

At this same time, the above experience was reiterated in Azadpura, a small village in Orchha in Madhya Pradesh where the Indira Awas Yojna funds in 1995 (the INR 14,000 per family) were used for in-situ development of eco-friendly housing led through design and technical supports by **TARA Nirman Kendra**, a Building Center of Development Alternatives but largely managed through community participation. This creation of customised houses, using alternative construction technologies, with production of materials in the village and the up gradation of local skills was repeated in small ways across the county by various members of the **basin**-*South Asia* and other civil society organisations. This experience was repeated in the same region, in village Madore, where an additional components of credit and local skills through TARA Karigar Mandal a cooperative of artisans collective trained in eco-construction provided construction services to a community led habitat development initiative. Village Madore provided the initial lessons of a "systems approach to rural habitat" and became a case example for the Madhya Pradesh state government in its endeavour to design a state led housing social housing programme, the Mukhya Mantri Awas Yojna[11].

TARA Karigar Mandal, Mason Guild, Bundelkhand

Figure 2:TARA Karigar Mandal Training in Process

TARA Karigar Mandal (TKM) is a registered artisan cooperative based in Bundelkhand, central India. Trained in eco or green construction technologies, they provide construction services for housing and institutional buildings and also provide training services in disaster resilient and green construction. They form an integral component of the rural housing delivery model innovated and piloted in the region by Development Alternatives.

[9] Facing Up to the Storm; Gram Vikas, 2000, chapter 7: Johnson, LT; Housing, Sanitation and Drinking Water: strengthening lives and livelihoods. http://gramvikas.org/uploads/file/Housing-sanitation-drinking%20water.pdf

[10] Based on discussions with functionaries from Gram Vikas, a not for profit organization working in Odisha in the sector of habitat, education, health and livelihood development.

[11] Madore Ek Ubharta Hua Gaon, the story of Madore www.youtube.com/watch?v=57ldGngpdd4 *and* www.youtube.com/watch?v=UfsjYNAYDK8*:* a quest for eco habitat

Another case of a community driven approach to disaster management was shared by Meda Guru Dutt Prasad director, CADME, a basin-SA member based in Andhra Pradesh, India. The recurrent disasters due to cyclone impacts has emphasised the need for preparedness to save lives and livelihoods in that priority In their drill of understanding vulnerability and capacity building of the community they realized that 'pucca' constructions especially those that have a strong foundation could be developed using local construction skills and these would save many lives in case of a severe cyclone. The engagement with community and their ownership to the process was established right from the assessment of vulnerabilities (see figure 2). This led to solution development that was accepted by the families.

Experiences of the Development Alternatives Group in Uttar Pradesh, Madhya Pradesh and Bihar and of Ashraya, Building Materials and Services Bank in Orissa to promote eco-construction technology based on local resources through the micro-enterprise[12] route between 1990 and 2004 brought to fore the potential of the market based approach[13] to delivery of housing products and services. Large numbers of small entrepreneurs were facilitated with access to credit, training and marketing supports to produce and supply materials for roof and wall construction such as Micro-Concrete Roofing tiles, concrete blocks, compressed stabilised blocks, fly-ash blocks etc. These entrepreneurs have been able to service the materials and construction need of rural customers, many amongst whom are IAY beneficiaries in a cost effective and efficient manner, customising the service as well as payments terms to suit the rural client and in the process contribute to the construction of 'pucca shelters'.

Figure 3: A typical village enterprise producing and supplying roofing tiles and providing a roofing service

Experiences of Civil Society partners, some of them associated with **basin**-*South Asia* in the aftermath of the Bhuj earthquake of 2001, provided useful lessons on home-owners driving their housing. Large numbers of civil society groups worked directly in partnership with village communities to develop context specific responses to reconstruction. In many cases[14] , these responses included knowledge and skill building with respect to safe construction, eco-friendly technologies (upgrading traditional systems) and design, information and hand-holding supports to families, artisans and material production groups. The results were largely satisfactory. It must be noted that the Gujarat state government created a state wide institutional structure that enabled technical, financial, legal and governance support to the entire reconstruction process. Civil society initiatives benefited from this enabling environment. These lessons were sought to be replicated in Tamil Nadu and in Bihar in the post Tsunami and post Kosi river flood disaster. However, the results were not commensurate with efforts, better in Tamil Nadu than in Bihar. An analysis reveals inadequacies in institutional measures that facilitate information, knowledge, construction guidelines, standards and skill building systems supply of materials through local entrepreneurs enabling home owners to take decisions and access desired solutions.

Figure 1:Constructionof the 'new' Bungas

Traditional Adobe Bunga houses in Kutchh constructed with earthquake resistant Stabilized Compressed Earth Technology – a whole new skill set created.

[12] Roy, Subroto; Entrepreneur: Kingpin in Technology Promotion, Development Alternatives Newsletter, October 2001.
[13] Heierli, Urs; **The Market Creation Approach to Development**
- poverty alleviation as a business for the poor, *http://devalt.org/newsletter/oct00/lead.htm*
[14] Referring specifically to work led by HunnarShala and the Kuthh Nav Nirman Abhiyan, SEWA (Self Employed Women's Association)http://kutchabhiyan.blogspot.in/2011/05/indigenous-housing-technologies.html, http://www.hunnarshala.org/

An innovation for the delivery of housing and sanitation in rural areas in Madhya Pradesh provides useful insights for "systemic measures" that can be created at local scales and those that will assist home-owners to drive their housing construction with increased satisfaction. The model consists of key stakeholders coming together within the rural housing eco-system. These are the home owners as joint liability groups desirous of building new homes and toilets or extending / repairing existing construction, the financing agency which can be a local bank, a micro-housing finance agency or a combination of credit-cum-grant service (as in the Madhya Pradesh Government), the local suppliers of 'eco' or environment friendly and 'pucca' construction materials, local skills providers as in artisan groups and technical service providers 9as in a local building center) facilitated by the civil society institution. All these stakeholders have a role to play and the model demonstrated in Madhya Pradesh shows a win-win for all thus bringing them together as partners and not beneficiaries enabling participation and decision making and ensuring that 'hand-holding' does not create dependencies[15].

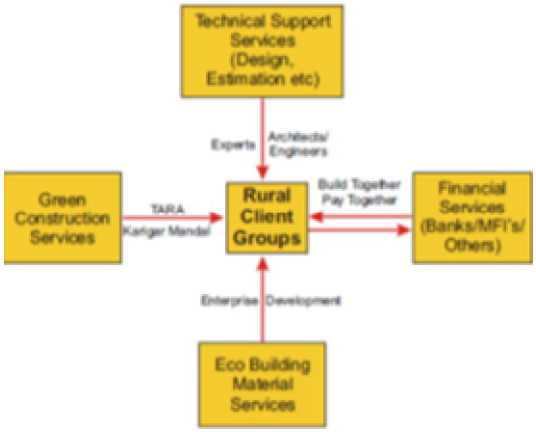

Figure 4: An integrated rural housing delivery model innovated and piloted by Development Alternatives in Bundelkhand, Central India

Very recently, large scale damage caused by unprecedented rain, cloud-burst and subsequent landslides in the northern state of Uttarakhand caused damage unimagined so far in history. It brought to focus, ecological as well as technical responses to habitat and infrastructure development in fragile eco-systems such as the Himalayas. The National Center for Peoples' Action in Disaster Preparedness (NCPDP), a **basin**-*South Asia* member and Development Alternatives explored appropriate response options. The NCPDP is presently engaged in demonstrating the solutions including training of local skill force in safe construction practices using local materials and improved technologies. With an aim to 'build back better'**,** disaster resistant and sustainable more eco-friendly homes, involving the community are being constructed in Uttarakhand with focus on people's convenience and comfort in construction technologies and designs. Rajendra and Rupal Desai from the NCPDP and their teams started with the seismic retrofitting[16] and restoration work on the existing stone buildings and gradually by gaining confidence of the community, they initiated semi-permanent shelters[17]which would last two winters and witness one monsoon and summer; giving way to more resilient construction (from mid-term to permanent shelters). The community's approval for construction of more permanent houses simultaneously emphasised skill building to construct safer homes.

Figure 5: A semi-permanent house under construction in Uttarakhand

[15]The 'build together-pay together' model with associated mason services through a guild, the TARA Karigar Mandal, linked to eco-construction materials from local entrepreneurs linked to credit designed and tested by Development Alternatives is now ready for roll out. http://webovatesolutions.com/tmp/fem_edit/da.html

[16]http://en.wikipedia.org/wiki/Seismic_retrofit

[17]The link is a photo album showing a step by step approach to construction of a Semi perm shelter: https://picasaweb.google.com/115342880643253303468/JAITIVILLAGESEMIPERMSHELTERCONSTRUCTIONTRAINING?authkey=Gv1sRgCNmW6fuO7PDfpwE

7. SMALL AND SIGNIFICANT STEPS ON A SLOW AND LONG ROAD – recent developments in policy

India still does not have a National Policy on Rural Housing and Habitat but it is important that India should initiate one. While we do not yet have a comprehensive National Rural Habitat and Housing Policy, a drafting process initiated by the ministry used the base of the document prepared by the **basin**-*South Asia* network partners in India. The draft policy was discussed within different ministries of the Government of India and was put up for comments from the people by the Ministry of Rural Development on its website for over a year. The process seems to have been abandoned mid-way by the Ministry, although their directives to state governments for formulating state-level rural housing policies have been sent out.

A significant intervention was made in 2011. The Working Group on Rural Housing for the XII Plan[18] (with inputs from members of the **basin**-*South Asia* network), recommended a systemic view within the social housing scheme without disturbing the status quo of the grant system. This view re-emphasised the need for including safety measures and low carbon, resource efficient construction systems, a stronger skill base and knowledge supports. It recommended a system of easy financing besides grant support for rural housing thus bringing into the foray structural changes for the first time. It also called for a more proactive and informed role of local government functionaries in promoting safe and sustainable rural habitat. Such recommendations were received from many other working groups, prompting the Government to develop a progressive XII Plan document, wherein for the first time, substantial emphasis was put on "low carbon, sustainable and climate responsive development strategies" and an enhanced non-plan component of finance to states, increasing flexibility in fund utilisation.

Some of the recommendations in the policy proposal document have been put into action albeit in a piece meal fashion and directed to "only the IAY", and not for rural housing as a whole. Amongst these, are, land for the landless so that the poorest do not remain bereft from their entitlement, a financing initiative that enables soft loan for meeting the gap between the available grant from the IAY assistance and actual cost of construction and a knowledge platform to facilitate information needs of local populations.

Some State Governments have moved ahead, with Karnataka and Tamil Nadu increasing the assistance amount and Andhra Pradesh leading the way with a saturation approach and putting in place very strong institutional methods for constructing 'pucca' housing using local building centres and micro-credit for meeting the financing gap. Kerala led the way in people's participation within the umbrella of a poverty alleviation programme 'Kudumbashree' that addresses social and economic development through women collectives. Gujarat set in place state wide institutional measures for not only information, technical supports but also insurance and disaster resilience training, as a very positive learning from the earthquake of 2001. The Madhya Pradesh state government announced significant forward looking measures in its State Housing Policy, with introduction of credit to those not covered under the IAY, demonstration of eco-construction technology measures across the state and setting in place a state wide training programme of masons, besides sensitising the government engineers and officials at the district level. They also set up a mechanism of monitoring and connected the tracking with financing measures using IT technology and direct connection with home-owners using mobile telecommunication.

Another, as yet unlinked piece in the puzzle is the Rural Housing Knowledge Network, an initiative of Ministry of Rural Development. This is a recent initiative to collate and make available knowledge for safe and sustainable rural housing and habitat construction. It is designed to work as a portal providing information and knowledge to various stakeholders such as rural families, masons, small scale building entrepreneurs, village Panchayats, block and district administration, state and central government officials, voluntary organizations, architects, civil engineers, and financial institutions. In its initial days yet, the portal is gathering information, classifying it as per regional characteristics and trying to reach out to different stakeholders in innovative ways.

In 2013, largely in response to the national and global environmental challenges, pressures for "greener more sustainable development strategies, the Ministry of Rural Development released its report on "Greening Rural Development in India". The Indira Awas Yojna as a flagship social housing scheme of the Government of India has been identified to be brought under the purview of the "greening agenda". The policy intent for a "Safe and Sustainable Rural Habitat" has again been emphasised.

[18] Working Group of Rural Housing for the XII Five Year Plan, Ministry of Rural Development, Government of India, September 2011, http://planningcommission.nic.in/aboutus/committee/wrkgrp12/rd/wgrep_iay.pdf

In 2013, new guidelines for the Indira Awas Yojna were issued. The unit assistance per household was substantially enlarged with a provision for subsidised credit as part of the XII Plan. A component of management costs and costs for Information and education to create awareness was added with an expectation that this will enable better supervision and management, enhancing the construction quality and safety. The new guidelines re-emphasise that States should identify appropriate local / improved technology options and also set in place training systems for creating masons who can service the construction. Subsequent to the announcement of the new IAY guidelines, the Department of Rural Development of the government of Gujarat has planned to promote use of local housing material and technology with disaster resistant safety features. It has now commissioned a study to come up with multiple local specific type designs for five pre-identified hazard zones covering entire Gujarat. This initiative was conceived because of the regular interaction and dialogue between senior govt. officials and civil society organisations working on social housing.

8. CONCLUSIONS

The Indira Awas Yojna has come a long way ice it was first initiated. Many revisions in approach, have been introduced, some through introspection by the Ministry based on evaluations and many due to advocacy by civil society organisations with a view to improve delivery and quality of the scheme. Significant changes have happened at the state levels where enhancement of funds to top up and or saturation approaches have brought in convergence of eco-technologies, credit and training systems into the delivery of the scheme.

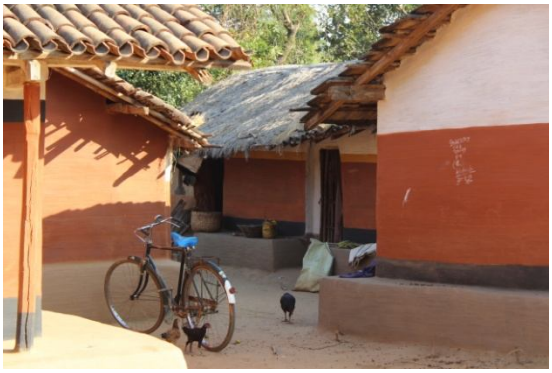

Figure 6: Traditional homes in Mayurbhanj, Orissa. Can centralised Indira Awas Yojna lead to strengthening rather than replacing the cultural aesthetic of our folk housing? (photo: Pankaj Khanna)

The civil society efforts over the years have brought them in as active players in the processes of social housing design. Thus, efforts and models being developed independently of the government are now brought into study by the committees set up to evaluate social housing during the five year intervals of Planning as is evident in the eleventh and twelfth five year plans. Civil society representation is mandatory in the empowered committees that take cognisance of social housing sanction. Technical, financial and social institutions are now active players as advisors, guides and decision support institutions assisting the government to bring in requisite changes.

This is however still not enough. The scheme still remains isolated from supporting systemic measures of capacity building, green technology, decentralised delivery and easy access to credit. It especially falls short with respect to local cultural, aspirational and geo-climatic response, particularly with respect to ecological sustainability and disaster resilience. The most significant change in approach is that of viewing home-owners as customers and not as beneficiaries of dole, thus bringing them in as active participants demanding service and quality. This will require a role change of the government from “providers of cash grants” to facilitators of services” in response to people’s needs and contexts.

With respect to disaster response, with the unit assistance available under IAY further increased by about 75% to INR 70,000 in plain areas and INR 75,000 in hilly and difficult areas, there is a huge financial burden on the exchequer and an equally heavy moral pressure on the stakeholders engaged in this sector to ensure that assets created are safe and provide the owners with necessary security. Housing sanctioned in disaster prone areas still does not carry the most important condition that asset security must be ensured, neither are local skills and knowledge systems supported towards this endeavour. With the ever increasing frequency and severity of disaster risk, casual and non-committal attitude to risk resilience in new house constructions may further fuel an already losing battle.

9. RECOMMENDATIONS

Putting homeowners in the center of a housing delivery strategy that ensures, safe, sustainable, culturally and climatically responsive construction is not just a 'post disaster response' need, it is an imperative to reduce disaster risk in the first place. Some critical steps that are needed to improve the disaster resilience of rural housing are:

Addressing the sector as a whole in a systemic manner rather than only a segment of the population: A coherent and consistent framework is required, one that lays down priority actions for reinvigorating and sustaining the rural housing sector as a whole, as opposed to the ad-hoc policy attention in the form of IAY alone. Although, the latest guidelines indicate the intent of putting in place and promoting systemic measures for information, knowledge, skill building, finance and appropriate materials and construction technology; the integration of these is still awaited.

Strengthening the role of local governments in both disaster resilience and community participation: The village government as the primary unit of integration and development has been given constitutional mandate by the 73rd and 74th constitutional amendment. Managing disasters at the local level is one of the 29 subjects devolved to local governments. Focussed attention is needed to build up capacities of this institution to ensure disaster mitigation and guide disaster resilient construction. A **basin**-*South Asia* member; Trust for Village Self Governance[19] developed a capacity building methodology for village Panchayats to ensure the safe habitat development. Clearly, a village government is first port of call to identify homestead sites for housing, check unsafe construction, aggregating local artisans for skill building, supporting local enterprise for materials production through land and infrastructure and leveraging technical resources for guiding home-owners[20].

A new menu of materials and technologies for promoting resilience as well as cost optimization: The housing system exists within the dynamic reality of an increasingly resource constrained, disaster prone and interconnected world. Materials, knowledge and skills are critical components of the rural housing eco-system. For constructing the large number of houses that the country needs, it is important to look at innovative building technologies that are people based, environment friendly and have high performance standards. The choice of materials and technologies must be based on a fundamental understanding that rural housing is an incremental process and is closely integrated with people's aspirations for a better quality of life and social standing.

While, the targeted Indira Awas Yojna guidelines highlight the need to use locally available materials, local skills, cost effective and environment friendly technologies in order to reduce environmental impacts and reduce costs, these need to be reinforced in practice. It is important that not only home-owners' but also service providers and monitoring systems understand what is meant by appropriate and cost effective technology or reduced environmental impacts. This will enable quality and safety.

Strengthening and promoting local enterprise in materials and skills supply: There is a clear need to strengthen production systems and supply chain of appropriate building materials and technologies. This can be done by facilitating small scale entrepreneurs as well as through building centres. Bringing in local market processes into play to service the needs of the rural society places social housing within the overall housing and habitat system. Local enterprise activity, for the production and supply of materials and for building services, addresses all construction activity in the rural catchment. Rather than owner participation being an outcome, a market based approach is 'based on' the home owners' active participation in decision making. Coupled with a robust information and knowledge support service, such an approach enables a family to access what it desires by creating an eco-system of services and supports within their reach.

Artisans as delivery agents as well as influencers: The role of the artisan and his/her skills in delivery of safe construction has been highlighted enough already. What is additionally and equally important is the critical role of the mason plays in influencing different decisions of the homeowner with regard to design, choice of technologies, inclusion of safety features. The capacity of the masons as one of the most critical actors in housing delivery needs to be strengthened so that he / she can inform the home owner on how to balance cost with structural performance and disaster resilience of the house.

[19] http://www.ruralhousingnetwork.in/professional/elango-rangasamy

[20] Niazi. Zeenat and Anand. Mona C; Handbook on Eco-Habitat for Village Panchayats; basin-South Asia, Development Alternatives and Rural Housing Knowledge Network, September 2012.

Enhancing access to credit and linking it to disaster resilience: The experience of the last two decades, as also noted in the XI Plan Document indicates that inadequacy of cash assistance for construction under the IAY has resulted in poor quality of houses and non-fulfilment of requirements of the disaster-prone areas. Bringing in easy and low interest credit actually enhances family participation as they now become customers rather than beneficiaries and demand quality. To encourage families to avail of credit support and to banks to proactively lend to rural poor customers, it is essential that a link with livelihood and income enhancement programmes is made. In addition, if credit is linked to "safe and durable assets" this itself will drive disaster risk mitigation in housing. Finally, the current chasm between the insurance sector and rural housing needs to be bridged. This is an area that needs a lot of ground research and continued engagement with the insurance sector.

Disaster resilience as a measure of quality: What one does that measure, one does not address. It is important that vulnerability assessments followed by measures of disaster resilience are integrated in rural housing measures. Needless to say that a participatory process for is required for this to be internalised by the communities. Even within the social housing focus, the new guidelines fall short with respect to assessing, measuring and mitigating risks due to natural phenomenon. One of the biggest gaping holes is that 'disaster resilience' is not even in the list of items to be monitored for quality.

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