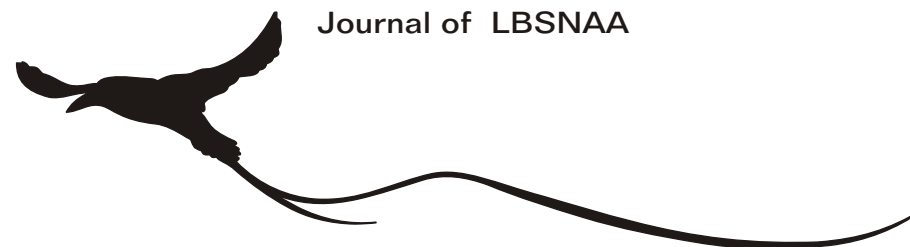


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Drug Price Control in India Has it Outlived its Utility?

Jan e Alam*

Abstract

The cost of pharmaceuticals is not the primary cause of health care inflation in developed countries. In developing countries relying heavily on out of pocket spending however, pharmaceuticals are the most significant component of the total health care cost. In India, both out of pocket spending on health care and spending on pharmaceuticals are relatively high. For this reason and the absence of comprehensive insurance based health care, access and affordability of pharmaceuticals become important policy issues. India's policy makers are torn between the need to control pharmaceutical prices and to promote the pharmaceutical industry. These apparently contradictory goals, as well as the unique demand and supply dynamics of pharmaceuticals, define suboptimal policies governing pharmaceutical prices. Four decades of cost based price controls in the country have produced mixed results for the consumer and the industry. The existing price control mechanism is anachronistic, intrusive and innovation retarding. These coupled with the recent TRIPS (Mention full form of TRIPS followed by 'TRIPS' in a bracket) compliant changes in the patent law, call for an overhaul of the price control policy. However, A decade of intense debate on the future contours of the policy remains inconclusive. In view of the third party induced demand and market distortions introduced by branded generics, there is a case for regulating pharmaceutical prices. This paper analyzes the underpinnings of the drug pricing policy followed so far and argues that India needs to retain price controls on essential drugs until a credible insurance-based health care system for the vulnerable population is put in place.

Despite rapid economic growth in India, access and affordability of health care remain major challenges for policy makers. Out of a population of more than a billion, 300 million people still live below the officially declared poverty line. Overwhelming dependence on out of pocket spending for India's poor and larger than average share of pharmaceuticals in total out of pocket spending accentuate an already grim scenario and guide the

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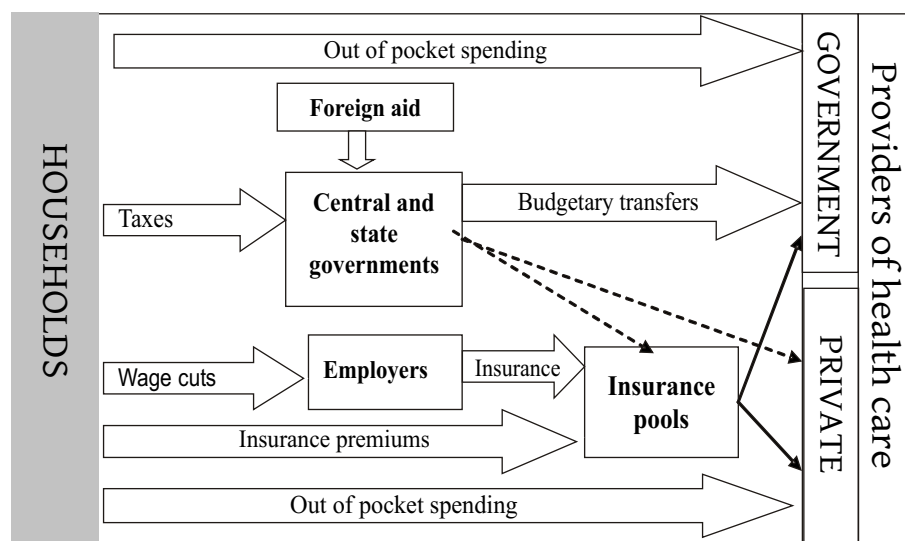
country's obsession with drug price controls. Four decades of cost-based price controls have produced mixed results for patients and providers of pharmaceuticals. However, a decade of intense debate on future policy framework to regulate pricing and availability of pharmaceuticals has not reached any conclusion.

This paper analyses the dilemmas surrounding the policy on pricing of pharmaceuticals. It argues that India needs to retain price controls on essential drugs until a credible insurance-based health care system for the vulnerable population is put in place.

The paper has five sections. Section I presents an overview of the Indian health care system. Section II examines the role of pharmaceuticals in total health care. Section III discusses the global practice of containing costs of pharmaceuticals and the rationale for price controls. Section IV critically analyzes the drug price regulation in India. The final section concludes with a discussion of broad policy implications.

Section I: Health Care System in India

Indian health care system is organized like its economy mixed. A relatively small public health care system funded by budgetary transfers and user fees runs along a larger but loosely regulated private health care. Figure 1 below captures the health care financing system in India.



Under the Indian Constitution, Health is primarily the state government's responsibility though the central government allocates substantial financial resources. Broadly, the funding by the central and the state government is in the ratio of 1:2 (Singh 2008). Out of pocket spending accounts for more than 75 percent of total health care spending. The high out of pocket spending on health care is an important cause of impoverishment (Deolalikar et al 2008). Table 1 shows the percentage of private and out of pocket spending in India compared to other countries.

Countries by income	Private expenditure on health as percentage of total expenditure on health		Out of pocket expenditure as percentage of private expenditure on health	
	2000	2006	2000	2006
Low income	66.7	63.8	89.9	85.4
Lower middle income	60.8	56.8	91.4	85.7
Upper middle income	47.1	44.8	39.3	70.0
High income	40.0	39.3	70.4	36.2
Global average	43.3	42.4	51.5	49.3
India	78.2	75.0	92.1	91.4
China	61.7	59.3	95.6	83.1

Table 1: The relative percentage of private and out of pocket expenditure on health care in different countries.

Health Insurance: Contributory public health insurance is available to government servants, military personnel and to workers in the large formal sector of the economy. Rich urban Indians working in the private sector also get private health insurance though its spread and penetration are limited.

Overall, more than 85 percent of the population does not have any financial protection (Bloom, Kanjilal and Peters 2008). The Indian health care system faces important issues of access, affordability and availability. According to the WHO estimates, 35 percent people do not have access to health care. Moreover, spending on pharmaceuticals at 40 percent is the most significant component of total out of pocket spending for an average household.

While publicly funded health plans with a small payee contribution provide unlimited health coverage, private insurance suffers from all the ills of small risk pools, inadequate financial protection and low health benefit ratios. It

tends to enroll younger and healthier individuals, and requires annual renewal that aims at excluding enrollees with pre existing illnesses. Many of these problems arise because of diffused regulation by the government. Private health insurance market in India has multiple players even though currently, it covers less than one percent of the population (Yip and Mahal 2008).

In short, Indian health care system has the advantage of being simple and largely unregulated. The system rewards private initiative except in pharmaceuticals. The disadvantages however are far too many- it provides poor financial protection, burdens the poor more than the rich, and produces less impressive health outcomes.

Section II: The role of pharmaceuticals in total health care

The Pharmaceuticals sector attracts disproportionate attention relative to its size in the total health care spending. Part of the reason is that pharmaceutical industry is an overwhelmingly private, investor owned and profit driven enterprise (Reinhardt 2008). Large pharmaceutical companies often occupy much more media space than other dispersed and localized health care providers do.

The global scenario: The total world health care spending is \$3.5 trillion out of which pharmaceuticals sales were \$635 billion in 2008. This is about 16 percent of the total health spending. There are however, large cross country variations. In the USA the relative spending on health care is 36 percent for hospital care, 20 percent for physicians' fee and 11 percent for prescription drugs. Though spending on prescription drugs stood at 8.2 percent in 1999, it is not expected to cross 14 percent by 2010 (Reinhardt 2001). In OECD countries, which account for much of the drug spending, the consumer is insulated from the real impact because of heavy reliance on insurance based health care and consequent low out-of-pocket spending.

In the developing countries however, the picture is completely different. First, these countries do not have comprehensive health insurance systems and rely mostly on out-of-pocket spending. Second, the spending on pharmaceuticals relative to the total health care spending is 35 to 50 percent. Third, very high prices of patented drugs generate debates that arise out of

an inadequate understanding of the role of innovation and R&D in Pharmaceutical sector.

The role of R&D: Innovation in pharmaceuticals has played an important role in taming many killer diseases and helped in arresting mortality and morbidity rates. It is argued that scientific knowledge is a “public good” and therefore should be owned by the government in the larger public interest. This could be done either through complete funding of R&D, or taking ownership of successful R&D for making it freely available to private industry or purchasing proprietary R&D products and transferring them to competing private manufacturers (Stein and Valery 2004). These and other alternative methods of using scientific knowledge for common good could be used in the decades to come (Reinhardt 2008). The current flavor, however, remains the WTO sanctioned Patent Protection regime.

Controlling cost of pharmaceuticals: Across the world, governments are concerned about health care inflation. Almost all developed countries, except the USA, have taken steps to control spiraling costs of pharmaceuticals in their total health care spending. These measures include reference pricing, promotion of generic drugs, negotiated pricing, budget controls and profit controls. For example, Germany uses a reference pricing system under which drugs are grouped into chemical and pharmacological clusters and prices are fixed at the average of lower one third of the cluster group. Australia uses the lowest price of each therapeutic cluster as the reference price (Kanavos and Reinhardt 2003). By contrast, the US does not regulate prices across the board leaving it instead to individual purchasers of health care (Danzon 2001).

The practice in developing countries: Developing countries have been torn between the concern to promote their pharmaceutical industry and to bring down prices to reduce out of pocket spending. For example, China regulates prices of 60 percent of the pharmaceutical market. A central government body fixes the prices after taking into account the production cost, profits and distribution expenses. It allows higher prices if the producer can make out a case for the product being an innovation (Sun, et al. 2008). South Africa regulates prices of pharmaceuticals by fixing a Single Exit Price (SEP)

benchmarked in 2004 and allows annual increases. (Williams 2007).

Pharmaceuticals Research and Development in India: India has followed a regime of process patents since 1970s that allowed Indian Pharmaceutical companies to copy the patented drugs and market them as generics. This helped lower prices of drugs in India compared to other countries. However, the patent protection regime coupled with tight drug price controls discouraged investment in R&D. Expenditure in Pharmaceutical R&D is less than one percent of total pharmaceutical sales in India. 12 major companies reported R&D spending of \$218 million in 2003-04. A study commissioned by the Indian Department of Pharmaceuticals estimated total Pharmaceutical R&D spending at less than \$100 million. In contrast, spending on R&D by pharmaceutical companies in the US is 13 percent of total sales.

Section III: Pharmaceuticals scenario in India

Globally competitive industry: Indian pharmaceutical industry has become globally competitive because of its capability to produce generic drugs at low cost. In 2008, the industry achieved a sales turnover of \$16 billion accounting for 1.5 percent of world production by value and 8 percent by volume. The industry is growing at a healthy CAGR of 8.4 percent. Faster growth is likely as accelerated patent expiries from 2011-12 open up new global opportunities. Ever since India aligned its legal framework in accordance with TRIPs requirements, Pharmaceutical MNCs have shown renewed interest in entering the Indian market.

Fragmented industry: The Indian Pharmaceutical industry is fragmented with more than 10,000 pharmaceutical manufacturing units. However, 20 large indigenous companies mostly account for the growth of pharmaceutical industry. Indian pharmaceutical exports account for 40 percent of the total production and are exported to more than 200 countries. The share of SOEs in this industry is negligible as its total production was less than \$130 million in 2008.

Retail sale: Pharmaceuticals in India are largely sold through privately owned stand-alone retail stores. There are more than 550,000 retail stores in the country. Major pharmaceutical companies organize their supply chain network around state level clearing and forwarding agents, wholesalers and

retailers. In urban areas, organized retail chains and hospital pharmacies have appeared of late, but their presence is minimal.

Branded generics: Another unique feature of the Indian Pharmaceutical market is that off patent drugs are sold under brand names, which command distinct market shares. Almost the entire pharmaceutical market is composed of generic drugs as patented drugs covered under the amended TRIPs compliant law are yet to reach the market. In the trade parlance, branded generics are *higher-end* drugs and have their poor cousins sold as 'generic generic' drugs.

Role of physicians and retailers in Drug promotion

Demand-pull strategy: companies promote branded generic drugs through physicians and hospitals. 'Demand pull' strategy is used when drugs are promoted through physicians' prescriptions that generate demand at the retail store. Marketing & Promotional expenses incurred by big pharmaceutical companies are not exactly known but could be higher than in the USA (31 percent). Expenses on 'medical representatives' employed for detailing account for much of the promotional spending.

Supply-push strategy: Under the 'supply push' strategy, drugs are priced close to the brand leader and contain huge trade margins, sometimes in excess of 1000 percent. Retailers push these drugs because of the incentive to earn higher margins. Many physicians also prescribe these drugs and either share the profit with the retailer or dispense drugs from their own dispensaries. The market share of the drugs promoted through retailers is less than 10 percent.

Prescription by brand name: In a country with low levels of education and consumer awareness, physicians are not required to prescribe drugs by their generic names. Instead, these are prescribed by brand name limiting the consumer's choice to consider alternative brands. *Weak demand side:* Markets for pharmaceutical products are intrinsically distorted because of the weak demand side and prevailing information asymmetries weakened further by moral hazard inherent in third party payments (Reinhardt 2008). In India, the bulk purchases by state governments and institutions such as defense, railways, Employee State Insurance Corporation (ESIC) and large State

owned Enterprises (SoEs) exert demand side pressure on drug prices. However, such purchases are made through open tendering process and often result in ridiculously low prices. A recent initiative by the government to promote Generic drugs usage by opening dedicated generic drug stores is yet to make a visible impact

Effect of competition on prices: Despite intense competition, the disproportionate power exerted by physicians on consumers' buying behavior distorts the market. With no price wars, this competition largely bypasses the consumer, revolving instead around the physician and the hospital. This explains the race to the sky in promotional offers. Unlike the USA, India has no law to restrict inducements to physicians. Instead, the government persuades the pharmaceutical industry associations to adhere to a code of ethics by not offering such goodies to physicians.

Over medication and over usage: Financial incentives to physicians frequently result in over medication and over use of antibiotics. Many physicians prescribe medicines based not on efficacy but on their commission. Selling of sample medicines and pushing irrational combinations are not uncommon in India. These not only put additional financial burden on the patients but also compromise their health.

Diffused regulation: In India, the Policy making and oversight governing pharmaceuticals is highly diffused. For example, while the central drug controller, under a central legislation, approves marketing of new drugs, the state drug controllers who are employees of the state government, grant marketing approvals for existing drugs and enforce quality standards.

Pharmaceutical price regulation has traditionally been the responsibility of the Ministry of Chemicals and Fertilizers. Pharmaceutical industry, interestingly, has opposed bringing all pharmaceuticals related regulatory oversight under one authority. The Department of Pharmaceutical remains responsible for promotion of pharmaceutical industry and regulating pharmaceutical prices. These seemingly contradictory objectives of industrial promotion and consumer welfare have resulted in suboptimal pricing policies over the years. National Pharmaceutical Pricing Authority (NPPA) is the principal regulator. Effective functioning of the Regulator is

impeded by low delegation of powers, understaffing and by often being viewed as a parking slot for soon to retire bureaucrats.

Section IV: Drug price regulation in India

Initial phase: Drug price regulation in India has evolved in three distinct phases in the last six decades. In the first two decades after independence, the colonial laws governed regulation of the Pharmaceutical industry dominated by multinational corporations. These companies carried out little research in the country, enjoyed patent protection and discouraged growth of the domestic industry. There was no price control on the drugs.

The First Policy: The 1970s saw major changes when the patent regime was changed to recognize copying of patented drugs manufactured through a different process. At the same time, the government, through the first pharmaceutical policy, introduced stringent cost based price controls and brought the entire pharmaceutical industry under the price control regime. The price control regime discouraged large industry and spawned a mushrooming of small manufacturers who did not attract price control on their products.

The Second and the Third policies: The Second Policy, in 1987 decided to reduce the span of control and brought down the number of bulk drugs under price control to 147. Almost 500 bulk drugs were kept out of the price control regime. This phase was marked by rapid growth of the industry particularly in the non-control segment. Economic liberalization in the 1990s gave a further boost to the pharmaceutical industry. Accordingly, the pharmaceutical policy of 1994 reduced the number of bulk drugs under price control to seventy four out of more than a thousand drugs. The span of price control also reduced in successive policies from 80 percent in 1987 to 45 percent in 1995 further coming down to less than 20 percent by 2008. The primary objective of these policies however, remained the same- to increase availability of good quality medicines at reasonable prices (Govindraj and Chellaraj 2002).

The Pharmaceutical Policy 2002: The Policy of 2002 aimed at further shrinking the span of price control to about 30 high volume bulk drugs. The policy was however, challenged in the court that stayed its operation.

All the above drug policies adopted economic criteria to identify drugs for price control. The criteria identified bulk drugs having high sales volume or a market share that indicated insufficient competition.

Pharmaceutical Policy 2006: Though the Pharmaceutical Policy 2006 was a major improvement over the previous policy and attempted to take care of the legal logjam, serious opposition by the industry to the price control provisions created fissures within the government. After a series of consultations to evolve a consensus over the criteria of price control, the Department arrived at the proposal that retained the existing price fixation formula with higher MAPE (Maximum Allowable Post-Manufacturing Expenses).

Expanded span of control: The proposals also provided for continuation of price controls on existing basket of drugs. Though this was done to pre-empt sudden spike in the prices of existing drugs, the proposal amounted to expanding the span of price control from 20 percent of the market to 29 percent. It gave a handle to the industry to oppose the policy on the ground that it reversed the long term trend of shrinking span of control.

The controversy: The main controversy arose on the proposal to adopt essentiality as the criteria for price control. This meant that many high volume formulations used in the treatment of chronic illnesses would come under control. While the government estimated span of control to be nine percent of the total market, the industry claimed that 40 percent of the market would come under price control. The industry wanted to continue with the old formula of price control with substantial relaxation. The Cabinet referred the policy to a Group of Ministers in January 2007 and the proposed policy languished there until the government completed its term.

The current price control mechanism

Currently the NPPA fixes bulk drug prices based on a formula that recognizes manufacturing costs and provides a markup of 100 percent to cover post-manufacturing expenses. The mark up is supposed to cover, the cost of logistics from the factory to the market, trade margins of the market intermediaries and the manufacturer's profit. Once the price of the bulk drug is fixed, the prices of formulations containing the bulk drug are derived

based on standard costing methods. NPPA monitors controlled drugs' prices primarily through ORG-IMS's monthly data of retail prices. Violations result in recovery proceedings of the overcharged amount. Prices of non-controlled segment are also monitored through ORG-IMS data. If prices increase for more than 10 percent in a year, the regulator can start the process to bring that drug under price control.

The effect of price control

On pharmaceutical industry: The Pharmaceutical industry has traditionally opposed cost based price control but is comfortable with the status quo. Most companies have diversified their product portfolios and moved into production of drugs that are not under control. The industry's view is that cost based price controls reduce the producer's surplus and constrict resources for R&D. The controls discourage innovation and drug development by not recognizing the scientific knowledge dimension of the industry. Price controls also breed inefficiency, as the companies have no incentive to reduce cost of manufacturing or to invest in technological improvements. Moreover, low prices in the domestic market adversely affect their competitiveness in the foreign markets since foreign buyers demand parity with prices prevailing in the country of origin.

On consumers: There is no doubt that price controls have enhanced access and affordability. A study carried out by NPPA in 2004 revealed that in a decade between 1994 to 2004 prices of medicines in the price controlled category increased by one percent annually whereas prices in the non controlled category increased by 10 percent. The government claims that there is no evidence to link poor availability with price controls. Consumers prefer tighter control of prices but face a collective action problem to influence the policy makers.

Disadvantages of the existing price control regime

It is anachronistic: Cost based price control is intrusive. It involves physical inspections of manufacturing plants and assessment of reams of cost data to arrive at the cost of production of a medicine- a process greatly resented by the pharmaceutical industry. The mechanism encourages negative creative accounting practices and breeds corruption.

It distorts market: Cost based price control reduces the incentive for the companies to reduce costs or expand production because efficiency gains resulting from cost cutting are mopped up by the government while fixing or revising prices. In the long run, companies migrate to non controlled segment. The exemption of SSI units from price control discourages them from achieving production of economies of scale.

It has lost relevance: The relevance of economic criteria to control prices has diminished over the years. For example, the basket of controlled drugs contains aspirin, ibuprofen, salbutamol and different vitamins- drugs that have many therapeutic substitutes and are available in the market at lower than controlled prices. By contrast, many essential drugs for chronic ailments such as hypertension, HIV/AIDS etc. are not part of the basket.

It discourages innovation: The price control mechanism does not contain any element to reward innovation. Rather, it discourages pharmaceutical companies from introducing incremental innovations in therapeutic value, drug delivery system or packaging quality. Price control provides perverse incentives to the companies for producing irrational combination of drugs and inappropriate dosage forms to circumvent price controls.

It diverts attention from other regulatory issues: Excessive preoccupation with pharmaceutical prices diverts attention from other issues such as regulating physicians, hospitals and quality control of generic drugs. The awareness about the relative prices, therapeutic substitutes or about the existence of NPPA is also extremely low. One study found that 96 percent consumers and 75 percent physicians did not know about the existence of NPPA (Randall, Alam and Gupta 2000).

It is easy to see that the existing mechanism's disadvantages can be overcome by making small changes. The Pharmaceutical Policy of 2006 did contain several foundational changes in this direction. First, changing the criteria of control from economic to essentiality addressed the issues of market distortions and perverse incentives. Second, changing the basis of control from bulk drugs to specific formulations could reduce the span of price control on the one hand and increase monitorability on the other. Third, using reference pricing methods instead of costing for each

individual manufacturing plant could reduce arbitrariness and the scope for 'regulatory capture'.

These proposals could be further improved by excluding the existing drugs from price control if they do not pass the test of essentiality. Moreover equipping the regulator with sufficient funds and human resources as well as investing it with independence should be an integral part of the policy reforms. Last but not the least, evolving a consensus on bringing together all functions related with pharmaceuticals regulation and forming an overarching regulatory body on the lines of the USFDA could bring an end to diffused regulation - the bane of pharmaceutical policy in India

Section V: Conclusion

This paper has analyzed the prevailing drug price regulation in India. Cost based price control is not in the long-term interest of the consumer or the industry. However, low public health spending, high out of pocket spending and high share of pharmaceuticals in total health spending, raise issues of access and affordability. The current pharmaceutical market is also almost entirely composed of generic drugs. These unique features coupled with the structural reasons of third party induced demand and persistent information asymmetries call for retaining price controls on essential medicines. The existing cost based price control regime however, has out lived its utility and needs to be overhauled in favor of a more focused and market friendly regulatory regime by converging related functions into an overarching regulatory body with clear accountability.

Apart from limited price controls on essential medicines, the country has to move to an insurance-based health care system. A discussion of what form the insurance-based system should take is beyond the scope of this paper. However, new initiatives in community health insurance and government-financed insurance for the poor could be expanded. Regulation of physicians and hospitals is also long overdue a measure which could significantly curb promotional expenses on pharmaceuticals benefitting the consumers.

Endnotes

¹ Reliable estimates of the R&D spending by pharmaceutical companies are difficult to get. Typically, pharmaceutical companies tend to overstate their R&D expenses for various reasons, an important one of which is the income tax rebate given on 150 percent of the spending on R&D.

² See <http://www.globelics.org/downloads/BRICS+workshop06/Chaudhuri.ppt>

³ The \$ 7 billion acquisition of Ranbaxy, the largest Indian pharmaceutical company by Daiichi, Japan in 2008 was the single biggest investment in India by any foreign investor.

⁴ Annual Report of the Department of Pharmaceuticals, Government of India 2008-09

⁵ The other promotional spending is on free samples and on handing out goodies to providers such as televisions, air conditioners, cars and organizing pleasure trips to exotic foreign locations.

⁶ A study of three drugs- Nimusulide, Cetirizine and Omeprazole whose generic versions had trade margins of 2000 to 3000 percent - by the regulator in 2004 triggered the demand for tighter price controls.

⁷ This is so because small units can offer prices that are a fraction of the leading brand's price. Consequently, big companies keep away from these tenders even though institutional buying is 8-10 percent of the total market.

⁸ Twenty-five such drug stores have been opened so far in a few states. The target is to open at least one store in each of the 600 districts. The drugs are sold under the brand name 'Jan Aushadhi 'meaning peoples' medicine'. The initiative has so far fallen short of the promise since participating companies do not produce many listed essential drugs.

⁹ Annual Report of the Department of Pharmaceuticals, Government of India 2008-09

¹⁰ The Drug and Cosmetic Act 1940 governs the quality and marketing approvals at the central as well as the state level.

¹¹ The government created a new department of pharmaceuticals under the ministry of chemicals and fertilizers in July 2008. However, functional reorganization across the ministries did not take place because of turf battles.

¹² For example, the proposal to create a National Drug Authority (NDA) on the line of USFDA has not succeeded largely because of the industry's active opposition.

¹³ NPPA was envisaged as an independent regulator at the time of its inception in 1997. It has however, evolved into an attached office of the ministry which retains the powers of review of NPPA's decisions and interpretation of the policy provisions.

¹⁴ 347 (out of the total 350) bulk drugs and formulations based on these drugs were brought under price control.

¹⁵ Span of price control refers to the share of drugs under price control in the total market.

¹⁶ The policy was challenged mainly on the ground that it exempted many essential drugs from price control which would make these drugs unaffordable. The court's stay order meant that the government could not issue a fresh Drug Price Control Order (DPCO) operationalizing the policy's pricing aspects. The government's repeated attempts to have the stay vacated have not succeeded and the DPCO '95 continues to be in force. Inter corporate rivalry is widely believed to be the reason behind judicial intervention.

¹⁷ The 1994 policy used the threshold of Rs. 40 million in annual sales turnover. The 2002 policy proposed to raise this limit to Rs. 250 million.

¹⁸ For example, the court's observation directing the government to ensure that essential drugs do not fall out of price control was taken care of.

¹⁹ For example, an inter ministerial committee recommended controlling trade margins of retailers' and wholesalers' another committee headed by an economist in the planning commission recommended reference pricing method by taking the average price of top three or five brands, freezing it and then allowing a fixed annual increase.

²⁰ The term used to define all selling, marketing & promotional expenses, dealers' margin and manufacturer's profit. The proposal was to raise the MAPE from existing 100 percent to 150 percent with additional 50 percent for R&D intensive companies

²¹ The Group of Ministers (GoM) was headed by Agriculture minister Mr Sharad Pawar a powerful ally from the state of Maharashtra that houses more than a quarter of the entire pharmaceutical industry.

²² Ram Vilas Paswan, the Minister in Charge of pharmaceuticals suffered a shock defeat in the general elections giving considerable relief to the Pharmaceutical industry.

²³ ORG IMS is a joint venture market research company.

²⁴ Though the law provides stringent penalties for overcharging including jail terms, the judicial system has not convicted even a single company. The court cases drag on for years without any result.

²⁵ The theory of regulatory capture as defined in <http://www.economist.com/research/Economics/alphabetic.cfm?letter=R> accessed on 01/26/2010

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TRADE AND CLIMATE CHANGE: The need to modify the the WTO Legal framework

Krishna Gupta *

Abstract

An increasing convergence has been noticed in the trade policy discourse and the climate change discourse. There is also a stark similarity in the multilateral negotiations in the World Trade Organisation (WTO) and on climate change: both are classic prisoners' dilemma situations with attendant free rider characteristics, which are so typical of collective action problems.

The issue of climate change is built-in in the WTO mandate. The WTO Agreements also have provisions that have a direct link with climate change issues. Similarly, the important multilateral environmental agreements (MEAs) have an explicit reference to the link with trade. In this paper, I highlight these linkages and argue that a comprehensive climate change accord is the first step, after which we could look at adapting/modifying various WTO Agreements. It is also argued that for any climate change accord to be successful, the principle of 'common but differentiated responsibility' would have to be adhered to. This principle essentially embodies the idea of 'climate justice' and requires that developed countries shoulder the major part of the responsibility by taking larger emissions targets. Developing countries would also accept such targets, but along with a regime of transfer of technology and longer implementation periods, so that there is no conflict between their development imperatives and climate change responsibilities.

In the post-climate accord period, I suggest that there would be changes necessary in the various WTO Agreements and discuss these in the context of Agreement on Subsidies and Countervailing measures (ASCM) and the General Agreement on Trade in Services (GATS). Specifically, in the context of ASCM, I suggest that even as non-actionable subsidies should be revisited to encourage clean technologies, there should be some disciplines on fossil fuel subsidies and on energy pricing. In the context of GATS, I suggest that a global emissions trading regime, which would be a part of the global climate accord, can be implemented, supervised and monitored within a modified GATS framework.

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"The earth provides enough to satisfy every man's need but not every man's greed."
-Mahatma Gandhi

Framing the debate

Arguably, the compelling logic for trade continues to be the law of comparative advantage as propounded by David Ricardo, which was later modified by Heckscher-Ohlin to state that countries will export products that utilize their abundant and cheap factor(s) of production and import products that utilize the countries' scarce factor(s). Both these theories attempted to explain trade between countries with different characteristics. Krugman (1979), assuming consumer preference for brand variety, explained trade between similar countries as a function of economies of scale. Such economies of scale ensure that production is concentrated in a few countries, as a result of which, countries end up specializing in a particular brand of the same product, rather than in different products. In short, trade would occur if both the exporter and importer stand to gain as a result of which, the post-trade situation is superior to an autarkic situation.

The WTO facilitates free trade by providing a rules-based platform for negotiating tariff cuts and greater liberalization in goods and services trade. To that extent, trade liberalisation is a global public good. Similarly, managing the deleterious effects of climate change is also a global public good. Everyone stands to gain if CO₂ emissions are reduced. However, while the WTO has achieved a fair amount of success in giving us one global public good (free trade), a comprehensive agreement on the other public good (climate change mitigation) is still some distance away.

The two global public goods are classic prisoners' dilemma situations: i.e. situations where Members maximize individual benefits, rather than collective benefits. As we know from Game Theory, the unique equilibrium in each case is a Pareto sub-optimal solution. However, in the case of trade liberalisation, incentive structures negotiated at the WTO conceptually provide a basis for overcoming the dilemmas (where developing countries also stand to gain from free trade). The incentive structure is designed to ensure that there is something for everyone in the multilateral rule-based trading system of the WTO. Commitments are taken on the basis of special and differential treatment the Least Developed Countries (LDCs) are generally not required to take any commitments and developing countries are expected to take commitments in line with their level of development. In

addition, the dispute settlement mechanism at the WTO is well regarded and has consistently ruled largely on merits of the cases, whereby many developing countries, more often than not, have been on the winning side. While the structure and legal framework is broadly in place and commitments in the Uruguay Round were taken on the basis of this framework, its exact operationalisation in terms of the Doha mandate is the key issue under negotiation in the WTO. In the context of climate change negotiations, the principle of common but differentiated responsibilities is accepted. But, the operationalisation of this principle is the main bone of contention. Thus, in both negotiations the key issue of discord is the proportionality of commitments.

The issue of climate change is built-in in the WTO mandate. The WTO also recognizes the principle of special and differential treatment in seeking to protect and preserve the environment. The Preamble of the Marrakesh Agreement calls for *'.....expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development'*

The WTO has recognised the complexity of the relationship between trade policy and environment policy, and also provided a forum to discuss these issues. As a result of discussions among Members, which coincided with the latter stages of the Uruguay Round, the WTO General Council established a Committee on Trade and Environment (CTE) in January 1995. The CTE mandate and terms of reference are contained in the Marrakesh Ministerial Decision on Trade and Environment of 15 April 1994. This Decision also mandated the CTE to report to the first biennial meeting of the Ministerial Conference when the work and terms of reference of the CTE were reviewed in the light of recommendations of the CTE. This report was heavily negotiated, forwarded to Ministers, and adopted in Singapore. The CTE has now structured its work around the ten items listed in the Decision on Trade and Environment. Indeed, the Secretariat of the Climate Change Convention has been invited to the CTE and has described the principles features of the Convention, particularly the trade-related features, to WTO Members. The CTE is kept fully informed of developments in the Climate Change Convention. However, in spite of these developments, an absence of a

universally agreed accord on climate change, discussions in the WTO have also been held haltingly.

In this paper, I will examine the relationship of the WTO legal framework with the climate change discussions, particularly with the important multilateral environmental agreements (MEAs) such as UNFCCC and Kyoto Protocol. In Section 2, I discuss the provisions in the current WTO legal framework, which are relevant for climate change discussions. In Section 3, I look at the important MEAs and reference to trade issues therein. In Section 4, I bring the climate change issues and the WTO provisions together. In Section 5, I offer some thoughts on common but differentiated responsibility. In Section 6, I suggest possible changes and modifications in the Agreement on Subsidies and Countervailing Measures (ASCM) and the General Agreement on Trade in Services (GATS). In Section 7, I look at the special issues confronting developing countries and in Section 8, I round off the paper with a conclusion. It is likely that any accord on climate change or emissions cap and trading, would require derogation from WTO rules and also require a home to address the issues arising there from. I will focus on the role of GATS in a possible global emissions trading system in the future and develop the idea that the Agreement on Subsidies and Countervailing Measures may have a role in tackling not only trade-distorting subsidies, but also 'environmentally degrading' subsidies.

The Current WTO legal framework and Climate Change

In the WTO legal framework, the following elements would be relevant to the climate change discussions:

- General Exceptions (Article XX of GATT)
- Technical Barriers to Trade (TBT) Agreement
- A general waiver under Article IX of GATT
- Trade Related Intellectual Property Rights Agreement (TRIPS)
- Agreement on Agriculture (AoA)
- Agreement on Subsidies and Countervailing Measures (ASCM)
- The General Agreement on Trade in Services (GATS), as a home to negotiate tradable emission schemes.

Of the above, there are provisions in GATT for derogation from commitments and obligations in the case of general exceptions invoked for protecting

human, animal or plant life or health (Art XXb) or for conserving exhaustible natural resources (Art XXg). A similar flexibility is provided in the TBT Agreement to accommodate environmental concerns. The general waiver under Article IX of GATT is a more general waiver and has been invoked in the past for developmental objectives such as providing preferential market access to the LDCs. Such a waiver can also be invoked to meet environmental objectives.

The TRIPS Agreement has important provisions related to transfer of technology, which are general in nature, but will apply to the transfer of environmentally sound technology as well. Articles 7 and 8 deal with the transfer and dissemination of technology and allows Members to adopt measures necessary to promote public interest and prevent abuse of IP rights. Article 30 allows Members to provide exceptions to patent rights and Article 31 allows for compulsory licensing.

The link of the AoA to the climate change debate could be thought of in terms of the subsidies being provided for the production of ethanol (corn subsidies in the USA) and the possibility of new TRQs for ethanol. We know that such subsidies have led to huge land-use changes and consequent changes in the cropping pattern in countries such as the US. This has been widely acknowledged as being a leading factor responsible for the recent inflationary trends in global food prices. From an environmental point of view, there is also the issue of the energy efficiency and the water-intensity of producing ethanol.

The link of ASCM with climate change has been discussed in a few papers (Sampson, 1999; Mattoo and Subramanian, 2008). The issue of corn subsidies has been alluded to above. The ASCM also provides for non-actionable subsidies, which include support to existing facilities to adapt to environmental requirements (for example, a subsidy to retrofit a coal-fired power generation plant to make it 'greener' with better technology such as carbon sequestration would be non-actionable). Finally, in the ongoing negotiations at the WTO, disciplines have been proposed on environmentally unsustainable fisheries. To this effect, a new Annex has been proposed to the ASCM.

The GATS linkage with climate change is similar to the General Exceptions referred to above. Article XIV of GATS, which deals with General exceptions

is the counterpart of Article XX(b) of GATT and allows Members to take measures to protect public morals or maintain public order, protect human, animal or plant life and safety measures. In addition, Article XIV(b) allows Members to take measures to protect its essential security interests. Further, GATS could also become home to a possible future emissions trading system. This is an idea that I will develop further in Section 6.

The above provisions notwithstanding, we need to remember that the current WTO framework does not provide for discrimination on imports that use 'polluting' technologies. Hence, such imports cannot be subject to discriminatory trade measures, such as 'offsets' which would get reflected in higher tariffs. Moreover, any future climate change accord would certainly need substantial modifications to the WTO framework.

The Multilateral Environmental Agreements (MEAs) and Trade

There are a number of multilateral, plurilateral and bilateral agreements/frameworks on Climate Change, of which the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (KP) are perhaps the most well known and crucial. The objective of the UNFCCC, which came into force in March, 1994, is to ultimately achieve reductions in global emissions of greenhouse gases. The link of the Convention to trade issues can be found in Article 3.5 of the Convention which states:

"The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade".

The Kyoto Protocol to the United Nations Convention on Climate Change was adopted by 160 developed and developing countries at the third session of the Conference of the Parties in December 1997. Article 2.1:a:v of the Protocol provides for

"the progressive phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run contrary to the objective of the Convention and application of market instruments".

And Article 2.3 of the Protocol also states that

"the Parties shall strive to implement policies and measures in such a way to minimize adverse effects... on international trade."

The above quotations clearly agree with the WTO objective of progressive liberalization and removal of trade restrictions and distortions. The results of Kyoto Protocol were particularly significant, since the use of market-based mechanisms to achieve the negotiated reductions in greenhouse gas emissions within specified time periods were agreed on. When the specific and operational aspects of such reductions are enforced, these will have a far-reaching impact on trade. We will discuss this in more detail in the next section.

Bringing Climate Change and the WTO together

In the above, we have framed the debate and established the trade-climate linkage. We have also shown that there need not be any contradiction between the two and that the WTO legal framework allows Members to take measures which adapt to or promote environmentally sustainable practices. That said, it is also a fact that such a framework would need substantial tweaking to accommodate a future emissions trading accord.

In the absence of an over-arching international agreement on climate change, measures adopted or contemplated by various countries on the trade front have necessarily been often ad hoc and disjointed in nature. Among the measures being contemplated are domestic carbon taxes with adjustment at the border, emission cap and trade systems with imported goods being subjected to similar disciplines, etc. The covered agreements in the GATT/ WTO or the jurisprudence arising from them do not provide an adequate basis for such measures. In the absence of clear disciplines in this regard, autonomous measures can only invite acrimony and discord. They can also provide a good cover to protectionism. The dispute settlement mechanism in the WTO does not have a robust basis to adjudicate on such measures. As a result of such actions, the credibility of the WTO can come under severe stress.

It is, therefore, crucial that trade measures to mitigate climate change have a clear and sound basis which can only be provided by an international agreement on climate change. Such an agreement based on the principle of common but differentiated responsibilities would establish a platform for

carbon price discovery. Once such an accord is in place, WTO instruments can be modified to make them compliant. It would also be the best way to ensure that a country's border measures are environmentally sound and also obviate the need to 'offset' competitive disadvantages, since everyone would be capping emissions based on the principles agreed to.

We need to remember that emissions targets will bring about fundamental changes in production processes and in the most important sectors of the economy such as power generation, transportation, agricultural and animal husbandry practices, land-use and consequently on trade. This would be even more important for developing countries such as India, where the nature of emissions is very different from that of western developed countries. It is therefore crucial that we stay clear of remedies such as offsets, which have been alluded to above and instead adopt a cooperative solution as suggested by Sir Nicholas Stern (Stern, 2007). Further, any solution that does not take account of the challenges of poverty alleviation in developing countries and the Least Developed countries will not succeed. The following quote from a paper by EcoEquity and Christian Aid is instructive:

“As economies are now structured, and as development is still conventionally envisioned, ending poverty unavoidably means vastly improved access to energy services and rising carbon emissions. Herein lies the core tension between the South's development aspirations and even the far more minimal demands of basic human development and the climate challenge. Any climate regime that ignores this tension is doomed to failure”.

The present initiative by some countries in the WTO negotiations seeking to eliminate tariffs on environmental goods and services is a piecemeal and mercantilist proposal without a clear objective basis. Unless there are clear understandings on issues of carbon pricing and measuring the carbon content of traded goods and services, such initiatives cannot command wide support. There is also the issue of financing of green technologies and the transfer of such technologies such as carbon sequestration to poor countries.

Common but Differential Responsibility: Some More Thoughts

We have noted above that in both negotiations the key issue of discord is the proportionality of commitments and that a regime of common but

differentiated responsibility is a must to overcome such international collective action problems. But what exactly is this 'common but differentiated responsibility' in the context of the debate on climate change?

I would like to highlight three core issues here: the right to development, resource ownership and technological and financial assistance. Many developing countries have large proportions of their populations living below the poverty line. China and India have half of the world's poor between them. It is a fact that lower emissions can be achieved only by switching to cleaner investment and production processes and this is both time and resource-intensive. If the raised costs have to be borne by developing countries, what happens to the right to development? Moreover, many developing countries have large coal reserves and this is the only economically viable resource available to tap for transportation and power generation. On the other hand, developed countries have already reached substantially higher levels of development and have access to clean sources of energy. They have also exported polluting industries such as chemicals, iron and steel and aluminium to developing countries. Developed countries also have access to the latest energy efficient technologies. Is it therefore not fair that developed countries take the lead in the transition to a greener way of life?

Investment decisions taken in developing countries today involve choices about energy efficient production methods, modes of transportation, type of power generation systems etc. Such choices would determine the levels of greenhouse gas emissions for the next 50 years. In particular, there is a strong demand and pressure to invest immediately in available technology, which is generally coal-based power generation systems. It is obvious that carbon emission targets would have to take into account these core issues and would have the following components:

- Establish 'carbon quotas' that each country can use, based on which a market for emissions trading can develop.
- These quotas would be established in a fair and transparent manner and would be a function of important variables such as levels of development and resource-ownership.
- This, in turn will be factored into various economic decisions by

businesses, consumers and the government and based on the demand and supply of carbon, a fair price of carbon will be established.

- Assuming that each country establishes a fair price of carbon, the market for carbon would ultimately ensure an equitable global price for carbon.
- Set up a mechanism for transfer of technology, R&D, as well as carbon finance flows from developed to developing countries for a smooth transition to a low-carbon economy (this would involve sustained support across all sectors of the economy). For this, developed countries will have to bear a substantially larger responsibility of reduction in the next 25-30 years. A part of this responsibility can be met by large scale financing of large projects in power generation and transportation or retrofitting inefficient plants and encouraging carbon capture and storage in developing countries. Such a mechanism could be modelled on the Clean Development Mechanism (CDM), which was put in place in the Kyoto Protocol and has been used by a number of countries to earn 'carbon credits'.

The ASCM and GATS: Suggested Modifications after the climate accord

We have discussed above that the WTO legal framework would need modification once a climate change accord is consensually agreed. We will discuss this in the context of the ASCM and GATS.

1. ASCM: As we all know, there are three kinds of subsidies dealt with in the ASCM: prohibited subsidies, actionable subsidies and non-actionable subsidies. While export subsidies and import-substitution subsidies are prohibited, those that cause adverse effects to the interests of another Member are actionable. However, the affected Member has to demonstrate that its interests have been adversely impacted in order to take countervailing measures against actionable subsidies. Non-actionable subsidies are those that are permitted for R&D, regional development and for adaptation of existing facilities to new environmental requirements. However, these provisions of the ASCM on non-actionable subsidies have however lapsed in December, 1999.

Hence, as things stand, all subsidies granted by Members for meeting Kyoto Protocol objectives are actionable and can therefore be countervailed. More

specifically, Article 2.1(a)(iv) of Kyoto Protocol called for subsidies for energy conservation, Renewable Energy production or consumption, R&D grants for climate technologies and Carbon capture and storage. These subsidies can be provided only if it is demonstrated that they don't have any adverse effect on another Member, i.e. they do not cause injury to another Members' domestic industry, nullify or impair benefits of other Members and cause serious prejudice to other Members.

One of the action points for the WTO then is to revisit the issue of non-actionable subsidies. Of course, anything in this regard would have to follow the nature of the climate change accord or the outcome of the next round of negotiations in Copenhagen scheduled in 2009 (This needs to be updated). For example, if there is a mandate to raise R&D spending, there would be a need to reintroduce flexibilities in the ASCM.

Another area for a potential ASCM role would be the disciplining of energy subsidies (in particular fossil fuel subsidies), since these distort markets for goods and services and hence impact trade. As we know, energy is a universal input in one form or another in the production process and energy subsidies can put the exporters at an unfair advantage. Not only that, such subsidies, by not reflecting the true price of the resource, lead to excess consumption, which in turn contributes negatively to climate change. Hence, both production and consumption subsidies need to be disciplined. However, I would like to add a caveat. All developmental subsidies (particularly consumption subsidies), used by developing countries and LDCs should have longer phase-outs, so that such countries can take recourse to new technologies and/or mechanisms under the climate change accord to shift to cleaner technologies and other alternatives. A multilateral agreement could be drawn up in the form of an Understanding or an Annex to the ASCM, which could cover the nature and scope of subsidy reduction, committing Members to reduce such subsidies, but with a clear provision that takes into account the development needs of developing countries and LDCs.

Another consequence of an international climate change accord would be its implications for energy pricing. At the moment, oil prices are largely determined by OPEC, which is a cartel and gas pricing is done by individual gas supplying countries. This pricing is based, not on market principles, but

on other non-economic considerations. The price is, therefore, not a true reflection of the value of the resource. In addition to oil and gas, there are a number of other energy sources such as coal and non-hydrocarbon sources (hydel, solar, wind, nuclear). The pricing of energy from these sources also varies across countries. In addition to this, there are also subsidies provided by almost all countries in energy supply. The energy market is therefore fragmented and there is no incentive at the moment to factor in the carbon footprint of energy supply. Once there is an agreement to properly price energy, it will be easier to assess the carbon footprint of products and production processes and it will become necessary for the WTO to factor in environmental rules related to energy pricing. This will ultimately ensure that gains from trade are translated into fewer greenhouse emissions. However, in their current form, the WTO instruments have their limitations in addressing these issues. There is perhaps a possibility of tackling issues of energy subsidy under the ASCM, but until now, there is no precedent.

2. GATS: As we know, services is a crucial part of the economies of the developed world and a growing area of the economy in many developing countries, accounting for more than 50% of their GDP. The dollar value of world merchandise exports rose by 15% to \$13.6 trillion and that of commercial services by 18% to \$3.3 trillion in 2007 (Needs to be updated). Within services, energy and environment services have emerged as important areas in the ongoing negotiations, with each having a plurilateral request¹ tabled seeking liberal market access. However, both services have a classification problem. While there is no 'energy' service, per se, in the list of service sectors being negotiated, the classification of environmental services is a bit dated (See 'Liberalization of Environmental Services in India' by TERI for a detailed discussion on the issue). We will not get into more details about classification issues and now turn to the relevance of GATS in a post-climate change accord period, particularly in the context of emissions trading.

It may be pointed out here that emissions trading is not a new concept. Such trading was first demonstrated in the US in the 1980s to phase out lead from

motor fuel, which was followed by the sulphur dioxide emissions trading program². These programs led to the establishment of the Chicago Climate Exchange (CCX) in 2003, which is the world's first legally binding integrated trading system to reduce emissions of all six major greenhouse gases (GHGs), with offset projects worldwide. CCX emitting Members make a voluntary but legally binding commitment to meet annual GHG emission reduction targets. Those who reduce below the targets have surplus allowances to sell or bank; those who emit above the targets comply by purchasing CCX Carbon Financial Instrument (CFI) contracts³. Reductions achieved through CCX provide independent, third party verification by the Financial Industry Regulatory Authority (FINRA, formerly NASD) of the USA. The Chicago Climate Exchange was followed by similar climate exchanges, which were set up in Montreal, Europe and Tianjin in China. Three more climate exchanges in California, New York and India are being planned.

The idea of an emissions trading program at the global level emerged as early as 1996 at the Conference of the Parties (COP) in Geneva. While the United States was the initial proponent of the idea of including market mechanisms, specifically emissions trading, the EU and developing countries were initially sceptical. Disagreement continued throughout the negotiations of the Kyoto Protocol. However, just before the close of Kyoto negotiations, emissions trading was accepted by the COP. The nature and scope of such trading was expanded at the COP in Marrakesh, which were later adopted as part of the Montreal Protocol in 2005. Under the Protocol and the Marrakesh Accords, emissions trading can occur between party countries, between a private entity and a party, and between two private entities with the oversight of party countries.

² The first instance of emissions trading was demonstrated in the 1980's U.S. program to phase out lead from motor fuel, which was followed by the highly successful U.S. Environmental Protection Agency sulphur dioxide (SO₂) emissions trading program. To reduce acid rain, an overall cap on SO₂ emissions was imposed on electric power plants. Power generators that find it expensive to cut sulphur emissions can buy allowances from those that make extraordinary cuts at low cost. While the first compliance year was 1995, trading started several years earlier. The first EPA auction was administered by the Chicago Board of Trade in 1993. Through private transactions and annual auctions, electric power generators trade emission allowances to arrive at an efficient use of mitigation resources.

³ CFI contract is the 'commodity' traded on the Exchange and each CFI represents 100 metric tons of CO₂ equivalent. These contracts comprise of exchange allowances and exchange offsets. While exchange allowances are issued to emitting Members in line with their reduction schedule, exchange offsets are generated by various projects that qualify as such.

¹At the Hong Kong Ministerial, Members had agreed to employ plurilateral methods in services negotiations. In plurilateral negotiations, Members with a common interest in a particular sector/sub-sector address a common request to another group of Members, which are markets of interest to the former. As a result, plurilateral requests in 21 sectors/sub-sectors were tabled after the Hong Kong Ministerial and a number of meetings of such plurilateral groups have been held since then.

As things stand today, the EU emissions trading programme is the largest of its kind in the world. The European Parliament and the Council of the European Union established the E.U. emissions trading scheme (ETS) and notified it in the Directive 2003/87/EC. This directive outlines the scope and coverage of the ETS and allows only legal persons within the European Community and possibly those businesses located in countries that have ratified the Kyoto Protocol to participate. Interestingly, all U.S. businesses, including those providing services associated with emissions trading (e.g., associated with emission brokerage firms), are prohibited from directly trading carbon allowances in the E.U. ETS.

Given the above discussion, it seems that a realistic outcome of any climate change accord would be a global emissions trading system, in which everyone must participate. Be that as it may, the question before us is: how will the global trading in emissions be monitored and supervised; what will be the legal framework and who will do it?

As we see it, emissions would be traded in the form of certificates or permits (similar to the CFIs above), whereby countries, private companies or firms can buy and sell such permits, with the oversight of all countries who have signed on. There would be emission brokerage firms all around the world providing this service. There would also be an international clearing house for such permits, which function could be performed by the Global Environmental Facility or a newly created International Environmental Agency. Alternatively, a 'Global Climate Exchange' could be set up on the lines of the climate exchanges in existence, which would act as the global clearing house for all regional, national and sub-national exchanges. All exchanges would, of course be one seamless whole, which are integrated electronically.

As we all know, GATS has three main sections: 1) general obligations and disciplines; 2) annexes with rules for specific service sectors; and 3) specific commitments by individual countries to provide access to their markets. It is conceivable that if emissions trading were to become a part of GATS, many Members having some form of emissions trading regimes (e.g. the EC, the US, China, Canada) would be in violation of MFN, National Treatment and Market Access obligations. For example, the EC scheme restricts the participation in their ETS to natural and juridical persons of the EC, which is a violation of MFN. Hence, Members would have to either modify existing programmes or

the GATS framework would have to be modified. It is possible to visualise a sequential process as follows:

- 1) Members agree to include emissions trading as a sub-sector and take commitments in the sub-sector. At the same time, Members agree to put in place a Global Climate Exchange, which would be an international clearing house for 'carbon permits'. This global exchange would be integrated with the existing exchanges and any future exchanges.
- 2) Those Members with existing schemes are first allowed a time-period within which to bring their emissions scheme in compliance with GATS, particularly in line with the MFN and NT provisions. Those Members, which have no such schemes in place, can participate in regional exchanges or other exchanges.
- 3) Once the emissions trading regime starts functioning, it is possible that the GATS framework may have to be modified to allow for derogation from the general obligations of MFN and NT, if such derogation leads to capping emissions. The GATS framework may also have to be modified more fundamentally to take account the following issues:
 - To analyse whether any measure taken to impact emissions trading regime, qualifies as a 'measure affecting trade in services'.
 - Whether emissions trading broking can be interpreted to mean 'trade in services'.
 - How to judge the 'likeness' test when evaluating whether NT has been violated or not? For example, would a broker from the US offering a wide variety of services, would be 'like' a smaller broker operating in a developing country?
 - How would new commitments in 'emissions broking' relate to old commitments in Financial or Environmental services?
 - How would derogation from MFN be treated if a bilateral agreement between two Members on climate change pre-dates commitments in 'emissions broking'?
 - Should 'emissions broking' be treated as a sub-sector under Financial Services or under 'Other' Environmental Services?

While many questions would need to be answered, some basic ground rules would apply. The general rule would be that the service will be traded through all the four modes of supply, with minimal National Treatment and Market Access limitations. All WTO Members would be required to extend National Treatment and MFN treatment to emission traders of other countries. However, the usual flexibility available to developing countries in GATS, to exempt certain service sectors from National Treatment can be retained. Similarly, Members would be encouraged to undertake market access commitments under Article XVI with few limitations, which would be reflected in the schedules.

Any Member not honouring its commitments on emissions trading can be taken to the dispute settlement body. Hence, the WTO system will ensure that any commitment in respect of climate change would be a credible commitment, with the possibility of a 'punishment' in the event of non-compliance.

Developing Countries' perspective

It is a fact that developing countries are both, a victim as well as a contributor to global warming. Consider the following:

- Developing countries and Least Developed Countries, which are often the least responsible for greenhouse gases, would be the most affected. Such countries include most countries from Africa and a number of islands in the Indian and Pacific oceans.
- The WHO has estimated that fighting diseases prevalent in developing countries such as malaria and diarrhoea would get more difficult with global warming. Even without the climate effect, it was already an uphill battle against such diseases.
- Water tables are falling steadily creating a severe water scarcity, particularly in arid regions. This is likely to get worse and lead to a fall in agricultural productivity and output in developing countries, particularly in India and Africa. This will have a direct and adverse impact on food supply and food security.
- In 1961, there were 261 lakes in Bangalore, India, which are reduced to only 61 lakes today.

- Maldives will be among the first countries to get submerged as a result of global warming.
- More erratic rainfall would lead to a change in the distribution of water around the year and in those countries where agriculture is dependent on rains, this could mean prolonged droughts in some parts accompanied by floods in other parts. This would also mean a change in cropping patterns and large shifts in agricultural output.

Taking India's example, it is well known that India is home to 450 million poor people living on less than US\$ 1.25 a day. The poor need drinking water, sanitation, jobs, roads, electricity (I am suggesting a rewording of the sentence to put the needs in an order of priority of sorts.) etc. All this requires energy, which in turn causes emissions. Today, India's per capita consumption of electricity is only about one-twentieth of the US's. Is it therefore just to ask India to shoulder as much of a burden as the developed countries, who have brought the problem upon us?

Add to this, the special situation that developing countries and LDCs are in: many of them are rich in natural resources and have large coal reserves, A the bulk of their future energy needs will come from coal, notwithstanding the effort to popularize and incentivise renewable energy sources such as solar and wind energy. And coal has much higher carbon intensity than other energy sources such as other hydrocarbons, Renewables (hydel, wind, solar etc.) and nuclear energy. Further, it needs to be recognized that emissions in many developing countries are not predominantly energy-related, unlike those of the US and the developed world. For example, in India, a quarter of emissions come from agriculture (methane from livestock and paddy fields).

What are developing countries doing to address these issues? For example, in the climate change negotiations, India and China have taken the position that we need to continue our focus on poverty alleviation and rural development policies and commitments to cap emissions would constrain such policies. However, if there are accompanying measures to help developing countries to convert to greener technologies, it would be that much easier to take commitments on emission caps. Further, the principle of common but differentiated responsibility would have to be adhered to. It is

also a fact that many developing countries are taking *suo moto* measures to address the challenges of climate change. For example, in India, the National Action Plan on Climate Change has been put in place which has identified eight core missions, namely: Solar Mission, Energy Efficiency, Sustainable Habitat, Water, Himalayan Ecosystem, 'Green India' Mission, Agriculture and Strategic Knowledge.

Conclusion:

In the above, we have contributed to a growing body of work, and established a dialogue between the climate change and trade narratives. We have found that while there is nothing contradictory between the two, it will take a huge multilateral effort in adapting WTO rules to a possible consensual and comprehensive climate change accord in the future. We have provided some indicators of how the ASCM and GATS might have to be modified. But, the first step would have to be an international climate change accord, with everyone on board.

So, what do we do? Some suggestions for a just climate regime are:

- A consensual international accord on climate change with a well defined regime of common but differentiated responsibility for, which provides for equitable contributions from all.
- This could be the basis for adapting/modifying new WTO rules. In the meantime, 'go it alone' measures should be dispensed with since they would be counterproductive.
- Transfer of green technology at near-zero cost has to be an integral component of the Climate Change Agreement. To be sure, there is an Expert Group on Technology Transfer under the UNFCCC, which has recommended a host of measures. These need to be operationalized without delay and be included in any future comprehensive agreement.
- Financing for converting carbon-intensive products and processes to 'greener' products and processes.
- A tariff regime rewarding 'greener' products, only after a level playing field is created.

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(It is an excellent article. however the style is more suited for making oral presentations rather than putting the article in a printed form. The author may like to consider this and have a relook at the article.)

COMPUTERIZATION OF DECENTRALIZED PADDY PROCUREMENT AND PUBLIC DISTRIBUTION SYSTEM IN THE STATE OF CHHATTISGARH, INDIA

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Abstract

This paper discusses the strategy adopted for successfully applying ICT and quality management techniques to ensure food security in the state of Chhattisgarh by checking diversion and leakage in the subsidized food-grain delivery mechanism. This was done by instituting a streamlined supply chain and inventory management system involving process computerization of paddy procurement from farmers, processing of paddy into rice using private millers and the food-grain warehousing and distribution network in Chhattisgarh.

In 2007-08, the Government of Chhattisgarh computerized the entire food grain supply chain. This involved the computerization of paddy procurement at 1532 purchase centers at one end and the distribution of rice and other PDS (Public Distribution System) commodities to 3.6 million ration card holders through 10427 Fair Price Shops (FPS), involving 6 different organizations.

As an outcome of the project, same-day payment is being ensured to over 0.8 Million farmers through computer generated cheques every year, for the paddy procured from them under the Minimum Support Price Scheme. Citizen participation in monitoring the Public Distribution System (PDS) has been ensured through sharing of inventory and distribution related information in the public domain. This paper discusses the project design, challenges, strategy and the outcome of the project.

Introduction

A major challenge for India is ensuring food security to the population below the poverty line (BPL) through managing the availability and efficient

distribution of food grains through the PDS. Two important schemes of the Government of India - procurement of food grains from farmers at Minimum Support Price (MSP) and Targeted Public Distribution System (TPDS) - cover the food grain supply chain.

This paper discusses the strategy adopted in using ICT and quality management principles to control diversion and leakage in the procurement and delivery mechanism and successful computerization of the food grain supply chain in the state of Chhattisgarh in 2007-08. The project involved process reforms and computerization of procurement of paddy at 1532 procurement (purchase) centers, its storage and milling into rice and its distribution, along with other PDS commodities (wheat, sugar and salt), to 3.6 million ration card holders through 10427 Fair Price Shops (FPS).

The paper is presented as a case study for management of food security and welfare in conditions of inequality in both urban and rural areas using Total Quality Management (TQM) techniques. The case study will discuss the challenges of the situation, the strategies adopted for meeting the challenge and the scope of replication and upscaling the initiative.

Procurement of paddy at Minimum Support Price (MSP)

70% of population of India subsists on agriculture. Majority of the farmers are medium and low income group who sell a substantial portion of their produce immediately after harvesting because of mainly two reasons

- i. Lack of adequate storage facilities to store the produce, and
- ii. Need for money to repay the loans taken for purchasing seeds, fertilizers etc.

Due to these reasons, market forces often exploit these farmers. At the time of arrival of agricultural produce, the market does not come forward to purchase the same and thus rates of the produce come down due to surplus availability in the market. Farmers are forced to sell their produce at lower rates, sometimes even below cost price, due to the reasons mentioned above. As soon as the produce is transferred to the hands of middle-men and traders from farmers, an artificial scarcity is created by storing the produce for later use and market rates ride high, the consequent benefit is cornered by the middle-men and traders.

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To check this practice and to ensure that farmers get proper price for their produce the Government of India operates a scheme to purchase farmer's produce in the season at MSP.

In Chhattisgarh, paddy is the main agricultural produce. Nearly 2.97 million families depend on farming out of which 1.522 million families are small farmers^[1] (having less than 4 hectares of land). The Government of Chhattisgarh procures paddy in Chhattisgarh on behalf of Government of India under a policy called De-centralized Procurement (DCP). This scheme annually benefits about 1 million farmer families by protecting them against exploitation and distress sale by guaranteeing MSP for their produce.

The procurement is carried out by the Chhattisgarh State Cooperative Marketing Federation Limited (Markfed) through 1333 Primary Agricultural Cooperative Societies in the whole state, spending about 24000 Billion Indian Rupees (600 Million US Dollars). The overall cost of the whole exercise, including storage and milling costs, warehousing, internal transfers (from surplus to deficit areas) comes to nearly \$ 1 billion annually.

The paddy procured is converted into rice by millers executing agreements with Markfed through a process called custom-milling; the resultant rice is then handed over to Chhattisgarh State Civil Supplies Corporation (CGSCSC), which distributes it to the eligible ration card holders at a subsidized price.

Targeted Public Distribution System (TPDS)

TPDS is a Government of India scheme to provide food security in the country. Under this scheme every Below Poverty Line (BPL) family gets 35 KG food grain at subsidized rates. Chhattisgarh being primarily a rice-consuming state, PDS mainly involves the provision of 35 KG rice per month at a subsidized rate of Rs 6.25 per Kg. There are 1.16 million identified BPL families in Chhattisgarh. Another 0.719 million Families get rice at Rs 3 per Kg under a scheme called Antyodaya.

The Government of Chhattisgarh further augmented this scheme to give 35 Kg rice at the rate of Rs 2 (Rs 1 for Antyodaya) to about 3.6 million families. The Government of India (GoI) and Government of Chhattisgarh spend about 18000 million Indian Rupees annually as subsidy to operate this scheme to benefit 3.6 million BPL and other poor families.

Leakage and Diversion

PDS is widely criticized for diversion and leakages in the delivery mechanism. PDS is ranked third in corruption among the 5 basic services (Hospitals, Electricity, PDS, Water Supply and Schooling) according the India Corruption study 2005 carried out by the Centre for Media Studies^[2]. It is estimated that 36% diversion takes place before the ration reaches to the beneficiaries^[3].

The main objective of total food grain supply chain computerization in Chhattisgarh is to check this diversion through efficient and transparent inventory management. The diversion takes place in four main areas.

- i. Diversion during the procurement itself.
- ii. Diversion in the movement of commodities between warehouses.
- iii. Diversion while transporting commodities to FPS from warehouses.
- iv. Diversion at the FPS level.

Strategy for Use of ICT and TQM to Check Corruption

ICT and TQM are advised to be used in systems to streamline processes and reduce discretion thereby minimizing corruption and raising performance standards. The question arises 'Can technology and management theories stop corruption?' The answer is obviously big NO. Technology and theories cannot counter corruption and vested interests. But transparency can stop corruption. Technology and process reforms can increase transparency in the delivery system and this leads to accountability, demand for better performance and this institutes a check on corrupt practices.

A three-step-strategy was adopted in Chhattisgarh using ICT and quality management to check diversion and leakage in the delivery mechanism of PDS as described below. Even though an independent survey has not been done, it is visible from the system that diversion and leakage has been reduced after computerization. However, a nation-wide story carried by the Outlook weekly magazine^[4] states that the consumer satisfaction with the PDS system in Chhattisgarh after the reforms is 92%. This strategy can be adopted in many e-Governance applications where one of the main objectives is to check corruption. The strategy is described below.

1. *Streamline operations and create transparency in operations so that every citizen can very easily know what is happening and compare it with what is supposed to happen.*

Transparency is the basic requirement to check corruption. Without providing adequate transparency no controls or inspections can reduce corruption. Excessive control on the other hand increases corruption. Transparency has been created by computerizing all operations involved in MSP procurement and PDS and providing all information on web and some vital information to the public through SMS (short message service)

2. *Provide the citizens with a convenient way to give feedback or lodge complaint so that one can lodge a complaint whenever some discrepancy is found.*

Transparency will allow citizens to identify malpractices. It will also allow them to know their rights and entitlements. But unless there is a convenient way for the citizens to report their grievances such knowledge is of no use to the citizen. On the contrary, it will create further disaffection from the system. Hence there should also be a mechanism to register complaints and / or offer suggestions to the authorities regarding malpractices or shortcomings in the system. The system to lodge the complaint should be as easy as possible so that any one can use the system without much effort. Most of the people will not be ready to spend time or money to lodge complaints even if they find some corruption in the public delivery mechanism. So, the complaint mechanism should be as cheap, intuitive and effortless as possible.

A Call Centre with a toll-free number has been operational in Chhattisgarh to provide a convenient way to lodge a complaint. Citizens can lodge a complaint through web also.

3. *Build confidence in public that complains lodged through the system will be attended.*

If the complaints lodged through a system are unattended citizens slowly will lose confidence in the system and stop using the same. Hence complaints lodged through the system (call centre) should be monitored so that they are acted upon in a timely manner. A Complaint Monitoring System is being used to monitor complaint redress mechanism so that confidence in the system is fostered in the public

Computerization of the Entire Food-grain Supply Chain

The case study details the complete process reforms and computerization of the food grain supply chain in Chhattisgarh from paddy procurement from farmers, its storage, milling and distribution of rice and other commodities to 3.6 million ration card holders through 10,427 Fair Price Shops.

As a part of this project, 1532 paddy procurement centers, 50 paddy storage centers, district offices of all participating organizations in all 16 districts of the state, 99 Chhattisgarh State Civil Supplies Corporation (CGSCSC) distribution centers and 35 FCI (Food Corporation of India) Custom Milled Rice (CMR) receiving centers have been computerized covering six different organizations involved in food grain management viz.

- i. Department of Food of the state government
- ii. Markfed
- iii. CGSCSC
- iv. FCI
- v. District Central Cooperative Banks (DCCBs) and
- vi. Primary Agricultural Cooperative Societies (PACS)

The purchase of paddy at the procurement centers has been computerized. This also includes same-day payment to the farmers whose produce is purchased. The processes of registration of millers, execution of agreements with millers and the release of paddy to the millers have also been computerized.

A central database of all 3.6 million ration card holders has been prepared and released in the public domain through the internet. The calculation of monthly allotment to each FPS has been automated using the per-card entitlement of each beneficiary family using standard entitlement parameters. Other initiatives for transparency and community participation such as establishment of an in-house Call Centre (with a toll-free number) and a citizen interface portal will also be discussed in the paper.

The Problem

As mentioned above, the foodgrain supply chain is a complex system involving several organizations. Two important components of the system were executed by different organizations. The paddy procurement, storage

and milling were carried out by Markfed (through PACS). The receipt of milled rice, storage of rice (and other commodities like wheat and salt) and distribution of commodities to FPS was carried out by CGSCSC (also involving FCI, State Warehousing Corporation).

Additionally, the creation of ration cards and periodic (monthly) allotment of PDS commodities was the domain of the Department of Food and Civil Supplies in the State Government, which carried out these activities through the District Collectors (including the Food Controller / Food Officer placed under the Collector in each district) who were also responsible for the licensing of FPS and periodic inspections.

There were also cross-cutting responsibilities, for instance, the Collector (through Food dept officials) was responsible for identifying millers and issuing milling permissions while the actual execution of the milling agreement was the responsibility of the District Marketing Officer of Markfed. The milled rice was however, not received by Markfed but by the receipt centers of CGSCSC or FCI, which subsequently sent paper receipts to Markfed for verification. The PACS reported to Markfed for the procurement related activities, but their controlling District Central Cooperative Banks also came into the picture because Markfed released funds to the PACS through the DCCBs. The DCCBs also tried to recover the short-term crop loans granted to the farmers from the payments for procurement but in the absence of timely and easily available information regarding outstanding loans of farmers this exercise was usually not very successful.

The entire process involved about 2000 nodes of operation, including the PACS, the storage centers and warehouses, the district offices of the various organizations and their state headquarters. The paddy procurement activity was carried out in a short span of about three and a half months (November to mid-February) while the milling took as long as 18 months in some procurement seasons. The losses on account of drying of grain, rain or insect and rodent induced damages were as high as Rs 2000 million in some years.

The usual quantity of paddy released to millers was in multiples of 400 metric tons, while the total amount procured from nearly 1 million farmers was between 3-3.5 million tons. Due to the large number of action nodes, and the relatively small quantities involved in each transaction it was a herculean task to reconcile each paper and to create an audit trail to ensure no grain was pilfered.

There were also cases of forgery where falsified papers were used to transport grain from the procurement centers and warehouses and the forgery came to light after several months when the papers were reconciled. There were also local variations in the processes followed by the local offices in different districts leading to mismatch in the information sought by the headquarters and the information provided.

The opacity in the system provided an incentive to persons with mala-fide intentions to take advantage of the system's shortcomings and obtain personal benefit through forgery, misappropriation and defalcation. The citizens of the state also regarded procurement and PDS as dens of wrongdoing as was seen from newspaper articles and the complaints that were raised repeatedly in the state legislature. Since the accounts of transactions were not prepared in time, it was also difficult to finalize the accounts of the organizations, thereby leading to further losses since the subsidies could not be claimed from Government of India.

The solution

The team led by Dr Alok Shukla, Secretary (Food and Civil Supplies) in the State Government and Mr. Gaurav Dwivedi, Managing Director (CGSCSC and Markfed) took up the challenge of addressing these issues head-on. It was evident that the system needed a total reform of processes, management, supervision, training, and focus through modernization, process reengineering, leadership and quality improvement.

After intensive discussions and deliberations, the team decided on the following action agenda

- i. Create a system flow diagram which incorporated every process from the preparations for procurement at the PACS till the delivery and sale of commodity at the FPS
- ii. Review and analyze each process at each level to identify pitfalls and reengineer the processes to eliminate discretion and allow systematic decision-making based on facts
- iii. Create an end-to-end supply chain computerization software thereby streamlining the supply chain and to enable identification and elimination of bottlenecks

- iv. Standardize processes across various levels throughout the state, thereby reducing the possibility of errors
- v. Seamless flow of data and information in the system to enable informed decision making, forecasting and inventory management, also to enable accounting and record-keeping in consonance with actual stocks and inventory
- vi. Procure and install computers and related equipment at all levels
- vii. Training of staff on the software and processes
- viii. Allow automatic reconciliation of data to throw up red-flags wherever discrepancies were noted
- ix. Freeing staff from paperwork and allowing them to concentrate on active and fact-based supervision at all levels
- x. Focusing on customers and clients by ensuring smooth procurement and payment to farmers and timely and adequate stocking of FPS for the foodgrain consumers
- xi. Allowing customers to have detailed knowledge and information about the system functions thereby bringing in transparency and accountability
- xii. Imposing performance targets on the system and making the system open to public scrutiny, such as same day payments to farmers and stocking of FPS before a certain date every month (chawal utsav)
- xiii. Reducing dependence on inspection of outcomes, concentrating on better performance through efficiency and improvement in processes
- xiv. Providing a channel for feedback from customers (citizens) to enable redressing grievances, prompt and time-bound enquiry and action on complaints and as a means for continuous improvement in performance and processes

Paddy Procurement and Milling

Chhattisgarh state is spread across about 135,000 square kilometers and has about 20,000 villages. Paddy is procured from about 1 Million farmers of Chhattisgarh at MSP at 1532 procurement centers spread throughout the state. Paddy Procurement Centers are mainly located at village panchayat

level (local self-governments, usually including between 1 to 3 revenue villages). Many of the procurement centers are located in remote areas and internet connectivity is not available at most of these centers.

A form-based stand-alone software module (PACS module) was developed for the purchase of paddy at MSP from farmers and the issuing of the purchased paddy to millers, storage centers and FCI. Information like names of all farmers in the jurisdiction of the PACS, details of their landholding, outstanding loans from DCCB etc were fed into the system before the commencement of the procurement season (typically between 1st November and 15th February) and each farmer was given a unique identification number. Cheques for payment to farmers and delivery memos for movement of paddy to different places are printed on computer in real time. The papers (delivery memos) issued to the various parties were compared to the electronic copies provided to the offices at state / district / procurement center levels to eliminate the possibilities of forgery, errors and deliberate acts of malfeasance.

Special importance has been given to on-the-spot generation of cheques on computers as it reduces the delay in payment to about one million farmers every year and builds faith in the new system. Prior to the implementation of this system, the preparation and release of cheque to the farmers took up to 7-10 days from the date his paddy was accepted at the procurement centre while after the project, the farmers were assured same day payment. Details of quantity of paddy procured from each farmer at each procurement location and of payments made to each farmer were displayed on the website.

Advance information regarding outstanding loans of the farmer allowed the system to match it against the payment being made to him / her, and the farmer was allowed the right to exercise the option of choosing to settle part or whole of the loan outstanding in his name. This process is locally known as linking. It was seen that most farmers were only too willing to settle substantial part of their loans from the money due to them. In the 2009-2010 season, the amount so recovered by DCCBs was about Rs 5000 million.

Allotting a unique identification number also allowed the system to check how much grain was sold by each farmer. Comparison of this figure with his landholding, and simple calculation of his productivity by dividing the

quantum of grain sold by the landholding and comparing it with the average productivity in the area could show if any person was attempting to sell grain he or she could not have grown. This eliminated the problem of middlemen cornering the benefits that were actually due to the farmers, and allowed the farmers to receive the money for which they were eligible. This process was further strengthened by issuing only crossed bank cheques so that only the intended beneficiary received the money through a bank transfer.

1532 data entry operators, who were local citizens with basic knowledge of computers, were recruited and trained on the operation of PACS Module. An interesting innovation of data transmission through motorcycle riders / runners has been introduced for data transmission from purchase centers to the central server and vice versa. V-SAT based NICNET connectivity is available in Chhattisgarh at block headquarters in the offices of Janpad Panchayats (Community Development Blocks, comprising between 50 - 100 village panchayats). About 250 Motorcycle riders were hired to carry data on removable / portable drives everyday from procurement centre computers to block headquarters, where they upload the data on the central server through the internet. The data was encrypted and de-encrypted at each end to prevent tampering with the data. Similarly any new version of software and delivery order details are downloaded from the server at the block level by these motorcycle riders, and carried to the procurement centers for installing in the local machines. This ensures near real-time availability of data at the central server even in the absence of internet connectivity.

All operations carried out by the district level offices such as District Collector office, Office of District Marketing Officer (DMO) of Markfed and Office of District Manager (DM) of CGSCSC as well as the state headquarters of these organizations were also computerized through web based applications. At all the 50 storage centers of MARKFED, 2 computers each were installed with a form-based module to receive paddy from the procurement centers and to issue it to millers or to transfer it to FCI.

70 Custom Milled Rice (CMR) receiving centers of CGSCSC (subset of the 99 distribution centers) and 35 CMR receiving centers of FCI were provided a web-based module to generate sample slips, analysis reports and acknowledgement reports.

Figure 1 describes the data flow and interdependencies in the system.

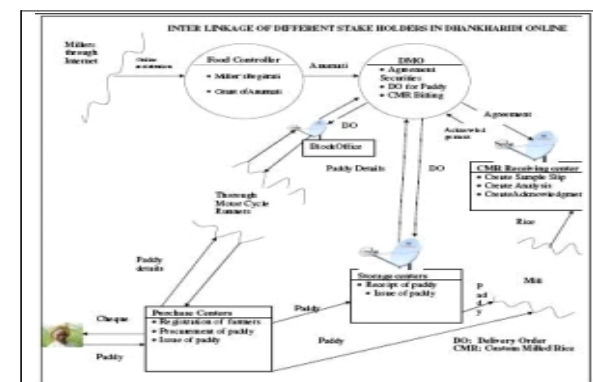


Figure 1 Data flow and inter dependencies in paddy procurement

Unified Ration Card Database and issue of PDS commodities to FPS

A Unified Ration Card database has been prepared for the entire state. The ration cards are printed centrally using the database. Each ration card is also linked to a defined FPS within the database. The database, including details of entitlement parameters, has been released in the public domain for ensuring transparency. Only ration cards having a unique number and a barcode printed through the database are valid now in Chhattisgarh. The ration-cards were prepared using the BPL lists as base-data, and through an intensive process of de-duplication and verification of beneficiaries after publicity through public-meetings over 300,000 fake or bogus ration cards issued earlier were eliminated. This led to substantial savings since the fake cards were used to divert the foodgrain from the legitimate beneficiaries.

Since the entire ration cards database has been computerized shop-wise allocations have now been automated. Per-card allocations are fed into the computer server at the State capital. Shop-wise allocations are calculated by the software using the number of the cardholders for each shop as the base data. This has removed discretion at all levels. Prior to the implementation of this system, the allocations were released from the State Food Department to the districts, where the Collector issued sub-allocations to the Sub-Divisions and the Sub-Divisional Officer released the allocations to individual FPS. This process took over two weeks, and created an opportunity for favoritism in

allocating excess commodities to certain FPS for monetary or other benefits. The National Institute for Smart Governance has commented that the process of releasing allocations has been reduced from 14 days to one hour after the implementation of the system.

All Fair Price Shops are required to give declaration of their stocks and sales in the previous month before issue of PDS commodities. A new self-declaration form has been instituted for this purpose under the provisions of the Essential Commodities Act. Instead of attempting to carry out large number of inspections, which often do not serve the purpose, the self-declarations given by the FPS owners are assumed to be correct and verified through random checks. This has created a participation in the system for the FPS owners.

The figures made available in the declaration are entered in the web application at the CGSCSC warehouses. Based on allocation, stock and sales figures of FPS, the actual amount of PDS commodities to be issued to the FPS is calculated by the software, and a delivery order is issued using the web application. After the issue of the delivery order a truck challan is issued indicating the truck number, driver's name, quantity dispatched etc. The truck challan is also generated using the web application. Thus information regarding allocations, stocks, issue and sales for each FPS is now available on the central server. At least 10% of this data is physically verified by the field staff of the Food and Civil Supplies Department every month, and criminal action is instituted against any FPS giving false declarations. Fig 3.0 shows the data flow and interdependencies in the system.

Citizen Participation web-site

Citizen awareness and participation in the public delivery system is a major check against diversion and leakage. Hence a citizen interface website has been created where citizens can lodge complaints or give suggestions. This web-site also provides a method of citizen participation to check diversion of trucks carrying PDS commodities to the FPS from the warehouse. Citizens can register their mobile numbers or email addresses on this web-site by selecting one or more FPS of their interest, for participation in the monitoring of PDS.

Each time PDS commodities are dispatched to the FPS from the warehouse a system-generated SMS / email is automatically sent to the registered mobile numbers / email addresses using the data from the truck challans available in the server. This message includes the truck number, the quantities of PDS commodities being sent by that truck, and the date and time of dispatch (Fig 2.0). Thus any citizen can know the exact date and time of truck dispatch with quantities of commodities. Citizens participating in monitoring of PDS can then check whether that truck arrived at the FPS and whether it carried the entire quantity dispatched. They can even get PDS commodities unloaded and stored in the FPS in their presence. If the commodities do not arrive at the FPS in full quantity within reasonable time, citizens can register their complaint at the website or through call centre. These complaints are monitored and details of the action taken are also informed to the complainant as well as displayed on the website as described below.

**Shop 442003100/Baktara Truck CG04/1439, Rice 87.91
Qtl, Wheat 1.25 Qtl, Sugar 0.0 Qtl, Salt 1.0 Qtl Date
210 Jan 10 11:00.**

Figure 2 - SMS sample

Call centre and Complaint Monitoring System

A call centre with a toll free number 1-800-233-3663 is operational in the CGSCSC headquarters. The complaints received by the call centre are immediately entered into a Complaint Monitoring System software and the complaint number is given to the complainant for further use. This software has also been developed in-house. All District Collector offices and all district offices of the CGSCSC and Markfed are linked to the call centre online in real-time.

These complaints are sent electronically to the concerned officer for time-bound enquiry and action. All the registered complaints received either through call centre or through internet are seen in the concerned officer's inbox. The officer conducts necessary enquiries and takes necessary action within the time period specified. Subsequently he / she enters the details of enquiry report and action taken on complaints which are found to be correct. The status of the complaint is informed to the complainant on demand.

well as examine the quantities that have actually been delivered to the FPS. This discourages the diversion and complaints, if any, are immediately acted upon. Over 100,000 SMSs have been sent to registered users in the last 3 years.



On a fixed, pre-announced day in a month, PDS commodities are distributed in the village market in presence of the public and nominated government officials. Other benefits to BPL families like old age pension etc. are also distributed on this day along with PDS commodities. This concept has increased transparency and citizen participation. It has been seen that over 40% of the monthly sales of the FPS take place on this one day. Since a robust community monitoring system has been established, the possibility of diversion and malfeasance on part of the shop owner has been substantially eliminated. This also imposes a pressure on the departments involved in the system to ensure that each FPS is stocked before the day for the chawal utsav. The annual performance appraisal of officials involved in PDS operations substantially depends on their ability to ensure timely stocking of FPS within their jurisdictions.

4. Truck Photograph to Server with Latitude and Longitude of Truck Position

An application in J2ME has been developed and loaded in GPS enabled mobile phones with camera to be used at warehouse. When a truck with rice and other commodities reaches the warehouse for delivery, the truck is photographed using the application and sent to the server. The truck and

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Figure 4 Truck photograph

receiver's photograph along with latitude and longitude reaches the server. Server side program compares the latitude and longitude of truck with latitude and longitude of the warehouse (already available in the master list of the central server) to ensure that the truck actually reaches the specified warehouse premises by the said date and time. This innovation is helping to check claims made by receiving centers regarding receipt of commodities transferred from other locations.

Outcomes of the Initiative

- The time period involved in giving cheques as payment for the paddy procured from farmers is reduced to one day from 7-10 days delay in earlier years. Farmers get direct benefit through crossed cheques, and monitoring of sales per farmer led to elimination of middlemen
- The DCCBs are able to recover much higher amounts of outstanding loans due to effective implementation of the linking scheme
- A centralized miller data base has been created by allowing millers to register their units / mills through an online application process. Inspections of each mill premises ensure that no grain is purported to be lifted by any non-functional unit, thereby eliminating chances of fraudulent lifting
- Uniform operational procedures / processes have been instituted and ensured throughout the state through a standard web based application in all offices
- The standard application uses common software platforms across all participating organizations, with task specific modules for each participant organization, thereby ensuring sharing of information in common standard formats and elimination of delays in reconciliation of information
- Web application led to micromanagement of inventory, resulting in quicker milling, less damage to rice and paddy due to reduced storage times and faster turn-around of inventory and substantial resultant savings. In 2007-08, the year in which the project was introduced, the entire procured paddy (about 3.1 million tons) was milled and disposed by April, i.e. within 2 months of the end of the procurement in February
- Automatic Calculation of monthly allotments eliminated delays, irregularities and mal-practices in granting allotments to FPS. Now it is calculated automatically based on the number of cards in the shop.

- Computerized receipt and issue of PDS commodities at distribution centers resulted in effective monitoring of lifting and increased transparency.
- On-line availability of available inventory at each distribution centre and accurate forecasting of demand has enable timely inventory management by advance shifting / transportation of commodities from surplus to deficit areas thereby ensuring that there are no delays in timely stocking of FPS in any district
- The SMS alert system and citizen interface web site is encouraging citizen participation in monitoring PDS.
- Complaint monitoring system increased the speed of action on different complaints due to close monitoring.
- The Call centre has many success stories in controlling diversion.
- Computerization helped increase transparency by providing all details on the internet in the public domain.

Challenges Faced in Execution of the Project

1. Lack of connectivity at paddy procurement centres

Paddy procurement is done in 1532 procurement centres at remote places of the state. Connectivity is not available at these places and daily procurement details are required to be available at state level. The challenge was addressed by hiring motor cycle riders.

2. Unreliable Power Supply at procurement centres

Anticipating irregular power supply at procurement centres, generators were made available at each centre. Proper earthing and UPS have been provided for computers for voltage stabilization.

3. Massive data entry of beneficiary details in Ration card database

About 3.6 Million ration card holder's details were entered in the central database for creating computerized ration cards. Since the data was enormous the only option was a decentralized data entry. A windows based form was developed for data entry. At the front end, Microsoft Access was used for data entry and transporting data to the State Headquarters for convenience. The windows data entry software had elaborate validation checks to minimize mistakes in data entry.

In addition, a data-checking software was developed to check the data for mistakes such as duplication of records when it was received at the State Headquarters. Once checked the data was imported into Microsoft SQL Server 2005 which was used to generate and print ration cards.

4. Font compatibility for Hindi data

The administrative language in Chhattisgarh is Hindi. The common problem in storing Hindi data is its compatibility as different people tend to store the data in different fonts which are mutually incompatible. From the very beginning, it was decided to use only Unicode fonts for storing data in all modules. Thus compatibility of data was achieved across the state.

This standardization also had the advantage that the Unicode data can be sorted and searching is easier, thereby making the data usable for queries and deriving subsidiary information from the primary data available in the server.

5. Lack of trained manpower

More than 2500 man days of training and workshops were conducted to meet the challenge. Trainings were conducted at the state headquarters using computers, presentations and hands-on training on the online software.

The staff of all departments and corporations involved in the project was trained along with the temporary staff hired by each PACS. The training process also provided feedback in the design of the software and served as a valuable input for continuous improvement in the proposed design and implementation strategy.

Discussions were held not only with the headquarters office staff, but also with the warehouse managers, storage centre clerks and the PACS managers to ensure that each process was thoroughly analyzed and the proposed process reengineering captured the job-requirements and did not themselves turn into bottlenecks.

6. Coordination between different departments

Six different organizations are using a number of interdependent modules of the system. Coordination between these organizations is a major challenge. The Secretary, Department of Food and the Managing Director of CGSCSC & Markfed took personal interest and coordinated with almost daily meetings and monitoring, as well as regular video-conferences with the district

officials, thereby ensuring close monitoring while saving time and money by reducing travel times.

Execution strategy

The project was conceived and crystallized in June-July 2007. The procurement season was scheduled to commence on 1st November 2007.

The entire process of consultations, obtaining formal approvals and sanctions from the appropriate authorities (state government / governing bodies and boards of Markfed and CGSCSC), system design, software development, preparation of training material, conducting training, hardware procurement (over 2000 computers / over 3000 printers / nearly 2000 UPS and generators / invertors) and its installation, procurement of nearly 200 VSATs, design of the system management instructions and internal rules, advance preparation of master-lists (farmer database etc.), recruitment of data-entry operators and motorcycle riders (runners) was completed in merely 3 months by 20th October 2007.

The system was tested through a dummy run between 20th-27th October 2007 and the full-fledged system was rolled out on 1st November 2007.

The software was prepared by the State Unit of NIC (National Informatics Centre) under the close supervision of the Secretary and MD. Both the Secretary and MD conducted at least one video conference every week with all District Collectors, Food Controllers / Food Officers, District Managers of CGSCSC and District Marketing Officers of Markfed to ensure continuous dissemination of information in both directions, and relevant staff members were attached to NIC to explain clearly the details of each process in the system.

The project was implemented using internal resources of the CGSCSC and Markfed, and no funds were demanded from the State Government.

Conclusion

The successful computerization* has established that the technology and properly designed systems can definitely reduce corruption and increase public participation and accountability in government programs as effectively as in the private sector. Use of technology and principles of quality management should be used to create transparency combined with a convenient system for a citizen to lodge complaints with confidence that the complaint will be attended.

Focus on products and output may work in the short term, but long-term success of systems depends on a focus on streamlining processes. Data should be captured as and when they are generated instead of developing MIS applications for entry of data after manual processes are followed. Effectively addressing issues of fair procurement from farmers, inventory management, database management of the target consumers and transportation through use of technology, simplifying & reengineering processes and people's participation can ensure food security even in remote and under-served areas.

The case study captures the factors leading to the success of the project and derives learning points which can be shared with other government programs targeted at providing food security to the poor.

* The project has received 7 national Awards including 2 National e-Governance awards from the Government of India. The reforms in TPDS in Chhattisgarh have been identified as a best practice by the Cabinet Secretary of India in 2009. The initiative has also been shared with representatives of SAARC countries in a workshop organized by GoI on 16.02.2010. **The team involved in the project implementation has received Prime Minister Award for Excellence in Public Administration.**

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Feasibility of using the Inputs of Think Tanks for Improving the public policy making process in India

Kalpana Awasthi *

Abstract

In the era of globalisation and revolution of expectations among the citizenry, the competitiveness of nations will depend inter alia upon the quality of decision making processes which impact public service delivery. It is in this context that governance reforms to ensure the professionalism of the policy making processes are critical. India is at the threshold of the century, where the world's expectations of India playing a leading role, hinge on the size of its economy and level of development. The contribution of India can only fructify when its own policy making processes are forward looking and comparable to the best practices in the world. Apart from such international expectations, domestically also governments are expected to solve problems. In the knowledge economy, there is a definite need for bureaucracies to emerge with creative solutions to problems. They may not necessarily have to be idea creators but must be receptive "ideas pinchers". This urgently calls for a system of consultations with multiple ideas generator sources that would produce unconventional though feasible options passing the test of credibility and legitimacy. Think tanks are one of the possible generators of such new ideas.

This paper therefore attempts to identify policy making mechanisms that would strengthen the civil servant supported decision making processes in India with the help of external and more open consultative processes drawing on the rigour of independent policy analysis bodies. This approach will hopefully ensure higher qualitative levels of policy making.

To that intent, after a detailed analysis of the present situation and a cross country comparative examination of best international practices such as the role of think-tanks in the US, France and Canada, five policy alternatives were evaluated against five well defined criteria. The resulting preferred alternative would combine those features from each alternative that is most applicable to the Indian context. It would imply only one major policy change, namely that the Planning Commission and the Line Ministries adopt henceforth a policy-making process requiring them to consult with independent bodies such as think tanks in addition to the present in-house consultative system. Depending on the technical nature of the issues, their political or social sensitivity, or their degree of urgency, such

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consultations might be done through conferences or hearings (as in the US); web-based consultations (as in Canada); use of special task forces consisting of “policy methodologists” and cross-disciplinary subject experts (as in the US); and/or establishment of special bodies drawing on nation-wide expertise to assess the state-of-the-art on broad economic or science policy issues (as in the US, Canada, and France). In addition, for emergency situations, government might consider using special task-forces to avail of expert advice at short term notice.

Regarding implementation, given human tendency to resist innovation and change, the report recommends careful design of a consensus-building strategy, starting with a conference aimed at finding common ground among the main stakeholders, and hopefully leading to the kinds of recommendations made in this report.

“ Let noble thoughts come to us from all sides” - Rig Veda.

Background of the problem

Problem Description

a) Quantitative

In today's dynamic world, the quality and speed of comprehensive policy and decision making has become critical and imperative. The World Bank Institute in its Building Knowledge Societies Report states that “mediocre governance resulting in a poor business climate is the single greatest hindrance to economic and social development in general, and to knowledge based development in particular”¹. According to the World Bank Governance Index², in 2007 India ranked 105th among all 211 nations in terms of the indicators measuring the speed and openness of decision taking. According to Transparency International³ the ranking of India in 2008 was 124th in the world. This perception has resulted in high economic opportunity costs, for instance failing to attract foreign direct investments in infrastructure, which would have had a large multiplier effect on the economy.

b) Qualitative

These concerns raise the issue of the democratic and participatory nature of the decision making processes. There is an ongoing debate as to who actually benefits from the present policy making processes, whether these reinforce

the civil-servant - minister “mindguard” system to benefit sectional interests or they are truly in the spirit of participative enlightened democracy. The policy issues are how to enhance the quality of policy making and at the same time reduce the time for decision making. Does the quality of policy making processes have ultimately an impact upon the outcomes in terms of policies made?

Policy and Problem context

Lasswell's initial attempt at describing the chronology of policy making process has now been largely crystallized into agenda-setting, policy formulation, decision making, implementation and evaluation. This entails information gathering and analysis to arrive at rational approaches for problem solving. The varied sources can assist in more rational and informed decisions. The challenge of the new century is for policy makers to reinvent their role through a radical metamorphosis of their mindsets. In “*Building Knowledge Economies*”, the World Bank Institute has differentiated the kinds of mindsets to be adopted to meet the competitive edge. These are as under.⁴

A New Mindset for Government Action			
	Liberalization Mindset	Modernization Mindset	Knowledge Based-(KB) economy Mindset
Is about	Undoing things	Building things	Building winning Opportunities
Creates	Freedom Fluidity Even playing field	Modern institutions Rule of law Good basic business environment	Vision A winning mentality Clusters A vibrant home base for business
Main Focus	Stability, incentives	Productivity catch-up	Becoming globally Competitive
Domain	Economy	Economy, society	Society
Government's Role	Get out of the way Stop being an Operator	Become a good Regulator	Become a challenger Become an integrator
Source: Adapted from Rischard 2002.			

⁴ *Building Knowledge Economies : Advanced Strategies for Development.*, pp 50;

¹ *Building Knowledge Economies : Advanced Strategies for Development*, Wbi Development Studies (Washington, D.C.: World Bank, 2007).;pp26

² "World Bank Governance Index," <http://esl.jrc.it/dc/govwbi08/examples.htm>.accessed on 5/19/2010

³ "Transparency International," <http://www.heritage.org/index/country/India>.Accessed on 5/19/2010

The current challenges of public policy making include -

i) The need to have access to relevant, independent, technical and empirical based timely information, which is reliable and comprehensible. Consistent with the “cognitive” theory of institutional design, the challenge is to maximize the quality of decision making at the highest levels of public policy decision makers in Government of India (Ministries). Providing and utilizing such information in a systemic way is one of the most pressing challenges today. The “avalanche of information” available to the public has raised the “revolution of expectations” to a higher plane, as citizens empowered with data at their fingertips demand for transparent, accountable and responsive governance. The flow of ideas has increased and so have the options. There are now multiple providers and analysers of information, and government's exclusivity has been eroded. So policy makers have to have the requisite systemic access to the entire gamut of information.

ii) The complexity and technical nature of policy problems has resulted in a situation wherein problem formulation itself is an abstruse exercise. The speed and extent of specialization has resulted in a further need to draw from sources where the expertise lies. The size of government has increased manifold but its effectiveness is circumspect due to engagement in routinised activities with less attention given to long- term perspective options and scenarios generation. The lack of professionalization and continuing learning has resulted in a wavering of the confidence in government officials in terms of their ability and capability to provide good service delivery. Globalization has spawned the growth of state and non state actors who are so networked that it makes it difficult to ignore their forte. The immediacy for a response has thrust upon decision makers, to have specialised knowledge “in the right form at the right time”⁵.

iii) According to an Overseas Development Institute, UK report on Bridging Research and Policy, the major reason for the appalling position of “power without knowledge” is due to non-receptivity to ideas. This according to its authors Crewe and Young is due to the following long list of reasons stated below (Source: Stone forthcoming)⁶.

⁵ James G. McGann, "The Global" Go-to Think Tanks ", (2007).

⁶ Emma Crewe and John Young, "Bridging Research and Policy : Context, Evidence and Links," Overseas Development Institute, https://courses.duke.edu/courses/1/PUBPOL383G.01-S2010/content/_2006151_1/Bridging%20Research%20and%20Policy.Context,%20Evidence%20and%20Links.wp173.pdf?bssession=31632569&bssession_str=session_id=31632569,user_id_pk1=13959771,user_id_sos_id_pk2=1,one_time_token=Tanks, " http://southasia.one.world.net/opinioncomment/indias-missing-think-tanks/discussion_reply_form.

In view of this it is befitting to remember the ancient Indian text - the Rig Veda which exhorts “Let noble thoughts come to us from all sides”.

Why is research ignored?

- inadequate supply of, and access to, relevant information
- researchers' poor comprehension of policy process and unrealistic recommendations
- ineffective communication of research
- ignorance or anti-intellectualism of politicians or bureaucrats
- inadequate capacity among policy makers
- politicisation of research, using it selectively to legitimise decisions
- gaps in understanding between researchers, policy makers and public
- time lag between dissemination of research and impact on policy
- research is deemed unimportant, censored or controlled
- some 'ways of knowing' are seen as more valid than others

iv) In order to create impact of public policies the approach should be to analyse the future consequences and secure support for farsighted policies. William Ascher has explained the challenge of farsightedness as entailing risk and uncertainty in success of the initiative. He states that “sound farsighted thinking and action” conveys three ideas namely -“a) The capacity and willingness to think and act farsightedly. Farsightedness does not guarantee good results, but shortsightedness is a far greater threat to desirable long-term consequences. b) Because thought generally precedes action, thinking about the long term is more likely to generate actions that take into account long-term consequences, although this does not always happen. c) The desired actions have to be sound as well as farsighted.” He has indicated the major challenges in the policy arena to include family economic security, conservation and environmental protection, averting health and security risks, community and Self-help upgrading, promoting productivity, physical infrastructure and charitable contributions.

v) After Independence, India adopted the path dependency of the British Cabinet and the Cabinet Committee System of policy making, whose key trait is secrecy. The policy makers presume and act as if they are the guardians and protectors of the public interest; knowing what is best for the citizens. The result is a closed policymaking process based on selective consultation with special interests where the attempt is to impose a consensus. This hinders the optimization of the knowledge to be able to function effectively

⁷ William Ascher, *Bringing in the Future : Strategies for Farsightedness and Sustainability in Developing Countries* (Chicago: University of Chicago Press, 2009);chapter 1

in the 21st century. There is an incremental decision-making process. Lindblom critiqued this decision making process as taking “baby steps” or “muddling through.” This has resulted in status quo maintenance thinking devoid of innovation or a challenging examination of issues. “From a policy perspective, it is hard to distinguish one government from another”⁸. Receptivity to new innovative ideas may be restricted unless major crisis events occur which compel a change and the exertion of political will for sheer survival.

Keeping in view the need for decisions of strategic long term nature and to improve India's responses to various alternate scenarios by building its competitiveness in the global arena, it is imperative that decisions are taken in a long-term scenario with perspective from all divergent sources. In this context, the role of think-tanks, “the idea brokers” (Don Abelson) and the “policy entrepreneurs-as educators, advocates and networkers” (Diane Stone) is worth exploring. In India, “speaking truth to power” is not an institutionalized mechanism. It is felt that while routine short term decisions are taken regularly, however, strategic long term views on policies affecting the future constitutes a miniscule portion of the decision making. Long term strategic decisions based on scholarly think tank inputs is feasible and has been achieved in countries like the US and Canada where it has become institutionalized, is valued and supported.

Past experience to solve the Problem

The policy making in India, a developing country, is inextricably linked with the overall philosophy of the Parliamentary procedures and Cabinet System. This has enabled India to keep policy making processes predictable irrespective of the party in power.

Time and again various Taskforces, Joint Parliamentary Committees and the various Administrative Reforms Commissions have laid stress on the need to relook at the various policies, and changes in policies have been made accordingly. The regular National Development Council meetings of the Chief Ministers of all States and the Prime Minister are also a good source of ideas for policy making. However, they may turn out to be party stand reinforcing mechanisms. Many Ministries have attached autonomous academic institutions for delving into various public policy issues. However,

as their position is subordinate, the receptivity to their views and opinions may not be outright and forthcoming especially if not aligned with the predominant views of the Ministry and/or political party in power. Besides, the extent to which the Ministries have the time or inclination to seek specific policy advice is also questionable. And there may be few controls over the quality of reports prepared by Ministries on particular issues assigned to them. For policies that may lead to inter-ministerial conflicts, normal practice is for the Cabinet sub-committees on various subjects to meet to resolve the issues. They explore for solutions based on what the ministers suggest. It is more in the nature of problem solving or deferring of certain solutions. In recent times, for all cross-cutting issues such as climate change or family planning or AIDS control, special Committees have been constituted under the chairmanship of the Prime Minister to elicit the expert opinions of renowned personalities working in that area. However, concrete steps to ensure long term scenarios have not been ensured as the meetings were used for voicing of opinions rather than devising action strategies. There has been a great public rhetoric from several quarters about the efficacy and adequacy of the present policy making processes. Perhaps, this has resulted in the creation of the National Advisory Council (NAC) to align the policy making processes with the party mandate in a speedy manner.

While specialized Institutes for Defense Studies have emerged as well as private institutes specializing in environmental issues such as the Centre for Science Education (CSE), the guarantee that their expert opinions would be given due weightage has not been ensured in the present system. Interestingly, another source of policy making has been the Supreme Court's judgments, which have mandated the Government to introduce programmes and policies to fulfill the directions of the Hon'ble Court.

Thus, at times, the suggestions received from various quarters have been implemented in a limited manner and in some cases deferred. In some instances implementation of the suggested policies was rolled back thus questioning the credibility of the government in its seriousness for reform. All this suggests the absence or insufficiency of a multi-disciplinary, all-encompassing policy process.

In conclusion India has primarily relied so far on a pragmatic, short term need-based incrementalist approach to policy making. The new challenges faced by the country suggest that existing policy making systems need to be

⁸ Rohit & Singh Pradhan, Sushant.K, "India's Missing Think Tanks," http://southasia.oneworld.net/opinioncomment/indias-missing-think-tanks/discussion_reply_form.

strengthened to prevent ad-hocism and ensure a proper balance between the short-term and the long-term and better reflect the viewpoints of the major constituencies.

Significance of the problem

Assessment of Scope and Severity of the problem

The global recession and the large bureaucracy have pointed that the business as usual approach cannot persist and that there is the need for a critical review of the policy making processes so that opportunities are not missed in the current century. This can be done through an exploration of the universal set of policy sources. In India, the domain of eliciting the thoughts of the think-tanks has as yet not been firmly explored. It is this context, which the present paper delves into.

Problem Diagnosis

The problem structure is reflected in the problem tree diagram which is appended as Annexure-1 in the document. The problem is defined as:

- a) Information asymmetry where the government has been deprived of harnessing the available expertise to explore the possibilities of quality inputs for arriving at policy decisions that maximise social welfare. The supply of expert opinion either to reinforce a point of decision or for generating ideas for initiating policy is not systematic; and
- b) Uncertainty as to whether the impact of policies on the weak and the poor is considered as per the Rawlesian framework that emphasizes (i) the need for equity and justice in policy and decision making or (ii) the principle of maximum benefit for the largest number of people rather than cater to a specific constituency. If this group is outside the ambit, then to that extent it reflects the failure of policy making.

Problem statement

The country's current Cabinet system of public policy making presumes that information and knowledge are the sole domain/prerogative of the civil service and the politicians - though it can be done, if considered necessary, in consultation with sectional interests. This approach deprives and precludes the system from obtaining independent, outside expert technical advice as well as from broad and varied perspectives. This prevents optimization of the knowledge and analytical capability

that India needs for good and holistic public policy making, to be able to function effectively in the 21st century.

In public policy terminology the problem would be stated as excessive dependence (rising) on bureaucratic advice in policy making, due to poor systemic methods of eliciting outside opinions, which may be creating a deficit of expert, independent opinions that may be required for gaining varied perspectives from divergent sources for improved policy making.

Stakeholder Analysis

The key stakeholders are all the Ministries of the Government of India along with their attached and subordinate offices and the Planning Commission of India. They have to take the decisions regarding the formulation of policies and their implementation mechanisms. They have both high power and influence. The view that they take may go unchallenged due to their power derived from “allocation of business rules” or the power of law making.

The Primary direct stakeholders are the Ministers and bureaucrats who primarily benefit from the status quo. They would presumably resent any challenge to their sole prerogative in policy making. They are very articulate and involved in moulding decisions. If the mindsets are oriented towards openness they would be effective champions of positive change. They both have high power, interest and influence. The political parties who are in coalition would like to take credit for any new policy initiative, whereas the opposition parties would strive to discredit the policies so as to improve their electoral fortunes in the future.

Secondary Stakeholders: The State governments are also concerned with implementation and supervision to some extent in the field. The research institutes, scientists, economists would be concerned in preparing the empirical evidence for the various points of view that emerge in the public domain. In fact, their views and studies would rationalise the decisions of the Government. The sectional interests and the private sector would try to mobilize opinion in their favour to maximize their gains.

Others: The media raises issues of public concern and the efficiency, cost effectiveness of any policies. Hence, its power is high. Besides, international financial institutions such as the World Bank, the IMF etc have significant powers of initiating reforms through funding, ranking of country performance etc.

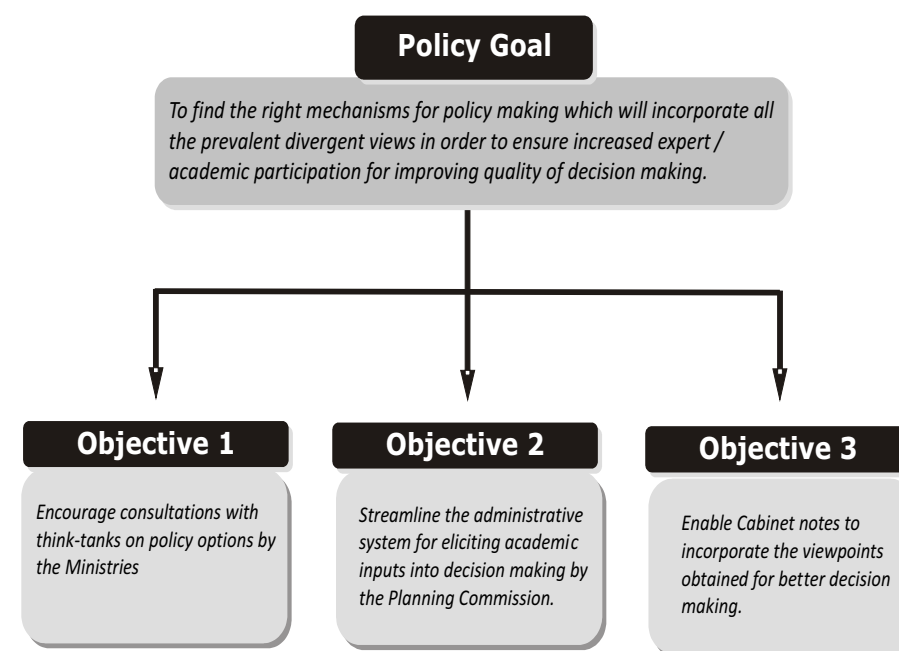
Goal and objectives definition

The goal of this project is to find the right mechanisms for policy making which will incorporate all the prevalent divergent views and ensure increased expert/ academic participation that will improve quality of decision making. Within that framework, the role of think-tanks in policy making in various countries will be explored. This goal can be met through a focused comparative cross-national analysis methodology of countries where think-tanks have played a major role such as the United States, Canada and France. While Canada has the same policy making structures as India, France has a well developed civil service where elements if found relevant could be replicated in India. Theodoulou⁹ has explained that according to Rimlinger's "Cultural Values" approach, certain policy strategies emerge out of a nation's unique historical experience that became embedded in its policy making culture. In the "Neo-Corporatist" Approach she elaborates upon the role of interest groups representation and its connections to the government through "institutionalized bargaining" resulting in eradicating the barriers between the various players in the system. Further in the "Institutional" approach pursued by Weir and Skocpol, she states that the foundational belief is that the State is the locus of the policy making process and the policy orientation is dependent upon those who control the State. Finally, it is the "Socio-economic" approach which lays emphasis on the convergence theory of all societies namely that similar problems will be generating similar policy choices, which makes the present comparative analysis meaningful. Accordingly this paper undertakes a detailed study of think-tanks in three countries, assesses their beneficial features as well as their limitations for developing alternatives suitable for replicability in India.

Policy goals and objectives

The following three policy objectives should be met. (i) Encourage consultations with think-tanks on policy options by the Ministries by 2012, (ii) Streamline the mechanism for eliciting academic inputs into decision making by the Planning Commission ideally starting by 2011 and (iii) Enable Cabinet notes to incorporate the viewpoints obtained for better decision making by 2013. The goals and objectives are shown in the figure-1 below.

The proposed indicators for the policy goal and objectives are shown in the table below.



The indicators should be monitored for determining the effectiveness of the chosen policy making mechanisms.

International experience with think tanks

Definition and roles

Think-tanks have emerged as important players in the policy making arena in many countries. They are difficult to define and categorise. Their common denominator is that they are civil society organizations which are "non-profit, independent of the state and dedicated to transforming policy problems into appropriate public policies."¹⁰ However, at present, they combine several roles depending upon their size, structure, source of funding, area of specialization and political attribution. They may act as "policy entrepreneurs within both domestic and international domains

⁹ Stella Z. Theodoulou, *Policy and Politics in Six Nations : A Comparative Perspective on Policy Making* (Upper Saddle River, NJ: Prentice Hall, 2002).; Chapter 1, pp 6-8

¹⁰ James G. McGann and R. Kent Weaver, *Think Tanks & Civil Societies : Catalysts for Ideas and Action* (New Brunswick, NJ: Transaction Publishers, 2000).

proffering policy advice..... They often cultivate a reified image as public-minded civil society organizations untainted by connection to vested interest or political power. Such authority and legitimacy is a necessary component in effectively diffusing ideas and propelling them into official domains.”¹¹ According to Diane Stone, some of these organizations aspire to operate on a “non-partisan” or “non-ideological” basis with the assertion of their adopting a “scientific” or technical approach to social and economic problems. Other organizations may exist for ideological reasons to rationalize a particular strand of thought. Some are “academic in style”, focused on original research, catering to university interests and to creating the base for a knowledge society. Others are actively engaged in advocacy and specific idea marketing whether in masticated policy-relevant form or in sound-bytes for the media or Congressional hearings or a political audience or the public education of larger communities. According to Stone, think-tanks would lie “at the intersection of academia and politics where they aim to make connection between policy analysis and policy making.”¹²

One of the major reasons for their proliferation is to meet both the demand and supply side for specialized information in a timely manner. The increasing complexities of policy and decision making are due to interaction of several extraneous variables outside the ambit of government control, the “decision overload”, the globalization trends and the numerous actors and players competing for attention and action. Thus, think-tanks have emerged as alternatives' providers of feasible/ doable, unthought of, rational action plans that are the result of empirical social science based research methodology. Their success, i.e. the receptivity and acceptance of their ideas however, depends upon whether they will find a fertile ground as their ideas do not enjoy an “automatic bureaucratic route” of approval. It also depends upon their asserting their autonomous position. Furthermore, the web-enabled networking between various think-tanks has enlarged the policy space exchange of ideas.

According to Stone, the features that distinguish a think-tank from pressure group is that i) think-tanks do not engage in public demonstrations but more

in televised debates or home pages; ii) they address multiple policy areas and issues with the public through annual fund raising campaigns; iii) they are “universities without students” i.e. they conduct research and analysis, workshops and seminars, conferences, scholarly exchange, publications but without granting degrees with the exception of RAND in the US; and iv) they contribute to disciplinary developments through specialist libraries, publishing reputable books, journals, and policy briefs.

Think Tanks in the USA

They first originated in the US during World War II in order to suggest alternate military strategies. Their significance as policy generating sources exists due to open acknowledgement of their contributions by Presidents Carter, Reagan and Clinton as providing blueprints for governance. The “revolving door” approach of academicians joining presidential administrations, in fact lends credibility to their influence on decisions taken by those administrations - though methodological difficulties prevent any causal ascription to their direct influence. Besides, their public and private influence cannot be easily demarcated.

Abelson has profiled the four generations of US think tanks, as evolving from (i) policy research institutions to (ii) government contract institutions; then to (iii) political advocacy and finally to (iv) the most recent “vanity” and legacy based think tanks.

According to Abelson¹⁴, the reasons for the very large proportion of think tanks in the US which are virtually a “cottage industry” are ascribed to the following features prevalent in the US:

- i) In order to assume the global responsibilities of a superpower after World War-II, the US had to depend upon policy experts for the conduct of its foreign relations. This led to the creation of the RAND Corporation (1948), the Foreign Policy Research Institute (1955) etc.
- ii) The anti-war and civil rights movements awakened the public conscience to the social and political turmoil both domestically and externally leading many “liberal” think-tanks to challenge the

¹¹ Richard A. Higgott, Geoffrey R. D. Underhill, and Andreas Bieler, *Non-State Actors and Authority in the Global System*, Routledge/Warwick Studies in Globalisation (London; New York: Routledge, 2000).

¹² Frank Fischer, Gerald Miller, and Mara S. Sidney, *Handbook of Public Policy Analysis : Theory, Politics, and Methods*, Public Administration and Public Policy (Boca Raton: CRC/Taylor & Francis, 2007).

¹⁴ Think Tanks in the United States by Abelson, Donald E, pp 107-124 in Diane Stone, Andrew Denham, and Mark Garnett, *Think Tanks across Nations: A Comparative Approach* (Manchester: Manchester University Press, 1998).

underlying, taken-for-granted leitmotifs of US domestic and foreign policy.

- iii) Similarly, the disenchantment with the perceived growing liberal bias among the faculty at US Universities propelled an increasing demand for autonomous research institutions. This led to creation of the Institute for Contemporary Studies (1972), the Heritage Foundation (1973) and the CATO Institute (1977) which pursue pure research interests.
- iv) Generous philanthropic, tax-free, non-profit corporate foundations and contracting opportunities to encourage knowledge creation and sharing, have also enabled the proliferation of think-tanks.
- v) “The constitutional architecture and the weak party system” have resulted, until recently, in not drawing the boundaries of the policy discourse on ideological lines. In fact, the multitude of viewpoints flourished due to this unique pluralism and openness.
- vi) The absence of a permanent bureaucracy at the senior policy-making level has encouraged the autonomous generation of viewpoints which bolsters the policy initiative of independent legislators and appointees.

These features have served the US favourably in terms of maintaining thought leadership through “polyarchy”¹⁵ in the global context. They have also provided the space for lobbyists to influence the Congress and the Executive in the course of public policy formulation in their constituencies' favour.

According to Abelson, think-tanks try to maintain their private influence by “accepting cabinet, sub-cabinet or bureaucratic positions in administrations..., serving on policy taskforces and transition teams during presidential elections..., maintaining liaison offices with the House of Representatives and the Senate..., inviting selected policy-makers to participate in conferences, seminars..., to head up fundraising campaigns..., offering former policy-makers positions at think-tanks..., inviting bureaucrats to work at think-tanks on a limited term basis..., preparing studies and policy briefs for policy-makers..., developing specialized

programmes for key policy-makers..., maintaining direct correspondence with policy-makers”.¹⁶

But, it is precisely on the basis of these operational influence mechanisms that the limitations of think-tanks as independent repositories of policy advisors emerge. The quid pro quo basis of reward of posts for advice, through a “spoils system”, questions the unbiased impartiality of their advice. As a result, in mature democracies they may encounter countervailing forces and Fleishman has also underlined their underperformance in “critical civic-sector functions.” This will continue to be the case whenever lobbyists are able to justify a stance that openly favours one sector by hijacking policy in one direction.

However, to counteract the weaknesses of the privately funded think-tanks in the US the “the National Academies perform an unparalleled public service by bringing together committees of experts in all areas of scientific and technological endeavour. These experts serve *pro bono* to address critical national issues and give advice to the federal government and the public. The National Research Council (NRC) functions under the auspices of the National Academy of Sciences (NAS), the National Academy of Engineering (NAE), and the Institute of Medicine (IOM). The NAS, NAE, IOM, and NRC are part of a private, nonprofit institution that provides science, technology and health policy advice under a congressional charter signed by President Abraham Lincoln that was originally granted to the NAS in 1863. Under this charter, the NRC was established in 1916, the NAE in 1964, and the IOM in 1970. The four organizations are collectively referred to as the National Academies.”¹⁷

According to its website, “The mission of the NRC is to improve government decision making and public policy, increase public education and understanding, and promote the acquisition and dissemination of knowledge in matters involving science, engineering, technology, and health. The institution takes this charge seriously and works to inform policies and actions that have the power to improve the lives of people in the U.S. and around the world.

¹⁶ Stone, Denham, and Garnett, *Think Tanks across Nations : A Comparative Approach*.

¹⁷ “National Academies of Sciences,” http://www.google.co.in/search?q=grading+system+at+Duke+University&rls=com.microsoft:en-us:IE-Address&ie=UTF-8&oe=UTF-8&sourceid=ie7&rlz=117TSHI_en accessed on 5/25/2010. Ibid.

¹⁵ Joel L. Fleishman, *The Foundation : A Great American Secret : How Private Wealth Is Changing the World*, 1st ed. (New York: PublicAffairs, 2007), pp xvi;

The NRC is administered jointly by the NAS, NAE, and the IOM through the NRC Governing Board. Members and foreign associates are elected annually in recognition of their distinguished achievements in original research; election is considered one of the highest honors that can be accorded a scientist or engineer. Currently, as many as 72 members and 18 foreign associates may be elected annually.

Although many names are suggested informally, formal nominations can be submitted only by an Academy member. Nomination materials and candidate lists are confidential. The nomination and evaluation process occurs throughout the year, culminating in a final ballot at the Academy's annual meeting in April.

In relation with India, the most useful element of the US system might be the NRC. However, its effectiveness will depend on whether decision makers will call on its services in a timely fashion when designing and shaping policies.

The broader lesson from the American scenario is its capacity to generate a rich diversity of alternative viewpoints based on the rigour of scholarly erudition. The richness of the University linkages and that of the best brains through the National Academies is a guarantee that there is a constant thinking and rethinking on innovative and fresh ideas. This may be one of the factors that have contributed so far to the thought leadership of the US in the world. The manner in which studies and expert opinions are utilized to buttress a particular point and raise the plane of public debate is worth emulation in an undiluted form. In view of the above process, the steering of the country in a particular direction in the long term is ensured.

The revolving door concept of calling on experts from outside the administration may also be worth consideration to the extent that conflicts of interest can be avoided.

Think Tanks in Canada

According to Lindquist¹⁹, Canadian think-tanks emerged only in the early 1970s in response to the Ritchie report that examined the feasibility of creating an independent policy institute. This led to the creation of the Institute for Research on Public Policy (IRPP) in 1969.

¹⁹ A quarter century of Canadian think-tanks: evolving institutions, conditions and strategies by Lindquist Evert E, pp127-143 in, *Think Tanks across Nations: A Comparative Approach*.

Their diverse spectrum covers organisations patterned after the US Brookings Institution through Federal support, to specific themes of economic nationalism and to improving the performance of the Canadian government and its public service. They rarely generate their own data but largely mine or repackage other organizations' research for large-scale consumption. Policy research is rarely conducted by the Institute staff rather it is undertaken by outsiders, while the insiders manage the contractual agreements. Above all, "policy analysis tends to be more implicit than explicit since it may be provocative and have implications for an institute's image....Think-tanks that regularly produce prescriptive policy analyses typically ensure that such work is undertaken by staff or trusted outsiders."²⁰ They have access to the Canadian Parliamentary TV channel, to generate public opinion.

The unique features of Canadian think-tanks are the employment of "different social technologies to achieve the objectives of their supporters and leaders. Some think-tanks are managed more like conglomerates. This may be achieved either by locating programmes in different cities, or by giving programmes considerable autonomy."²¹ The disillusionment with the ability of the public service to provide policy advice in the midst of rising challenges has created a 'public market' for specific services. This has encouraged the universities with research units to specialize in a policy orientation. The government is also encouraging "centres of excellence" for policy debates and consultancies on specific areas. The "without walls virtual think-tanks" are the innovative tools of the Canadian scenario and consist of sharing network capabilities with interdisciplinary insights.

According to Daniel Cohn, the exact manner of utilization of university generated research by the policy makers was categorized by Landry et al into the following categories:

1. Reception: Policy makers receive academic research relevant to their work.
2. Cognition: policy makers read and understand the academic work they have received.

²⁰ "Lindquist, Evert A., A quarter century of Canadian think tanks: evolving institutions, conditions and strategies; pp 127-143;Ibid.

²¹ Ibid.

3. Discussion: policy makers engage in meetings, conferences or workshops to discuss the findings of the academic work.
4. Reference: policy makers cite the work and its findings in their own reports or documents.
5. Adoption: policy makers encourage the adoption of the results reported in the work as official policy.
6. Influence: the findings of the work in question influence decisions in the policy makers' administrative unit."²²

This approach appears to be rigorously implemented in Canada where the intricate networking with universities as centres of excellence is ensured.

The important lesson from the Canadian approach is that through this interactive process of meta-analysis by government sponsored but independent think-tanks, policy makers get access to a variety of policy advice that is likely to inform the policy choices that will ultimately be made. Though this process may not follow a linear path it is likely to ensure an element of learning and cross sharing. Another important take-away is that it was demand-driven, namely that the Canadian government commissioned the Ritchie report precisely because it wanted to improve the quality of its policy decisions.

Think Tanks in France

According to Fieschi and Gaffney²³, "French think-tanks have often had a greater impact on the wider political process than the official, formal policy process. The 'cabinet ministeriel' is the equivalent of a think-tank comprising of a group of experts who have an ideological orientation (and often similar educational and social background) and a wish for their research and reflection to influence the political process. The "ministerial cabinets" are the unique embodiment of the political thinking. They are "ad hoc groupings around newly appointed government ministers, who offer them advice, often short-circuiting that of the Ministry's civil servants, and who have great influence upon agenda setting and policy elaboration." In

France, the revolving door concept is evolved to such a large extent that there is a movement from senior positions in the civil service into politics and to the Universities or business. They pride themselves in the professionalization of all. Similarly, there are independent political clubs which also provide scope for reflections on the ideological concerns of the political elite.

France's National Research Institutes have also emerged as independent bodies which maintain links to other sectors for a comprehensive linkage with policy formulation. They have permanent staff entrusted with the task of disseminating information and findings to all down the chain.

The manner in which the National Research Institutes are integrated with the policy making process is worth replication in the Indian context, especially as it allays the fears of the political party driven agenda.

Criteria of effectiveness for think-tanks

As a basis for a sound policy system, independent think-tanks should meet the following criteria:

- i) Whether they reliably provide a complete overview of all viewpoints within the country as well as of relevant international experience?
- ii) Whether the views expressed are as per the latest thinking on the matter and whether best practices have been assessed regarding their applicability to the present context?
- iii) Whether the main parties have been consulted and it is possible to estimate the extent of inclusion of the various viewpoints?
- iv) Whether credit can be given to the contributors so as to elicit their future contributions as well?
- v) Whether their efforts to "broker policy analysis to decision makers" have had any influence on the policy agenda or the adopted policies?

We should recognize, however, that the degree of success of the think-tank input is difficult to measure as (i) policy ideas do not take the form of one "enlightenment" moment; rather they are built upon several moments of diffused interactions in conferences and seminars; (ii) there may not be one single source that contributed to the innovative policy dimension; (iii) at times it is not so much the value of the academic output rather than the individual behind the initial output that lends credibility and legitimacy to

²² Laurent Dobuzinkis, David H. Laycock, and Michael Howlett, *Policy Analysis in Canada: The State of the Art*, Institute of Public Administration of Canada Series in Public Management and Governance (Toronto: University of Toronto Press, 2007), 'Academics and Public Policy: Informing Policy Analysis and Policy Making by Daniel Cohn pp 581-582

²³ French think-tanks in comparative perspective by Fieschi, C& Gaffney, J, pp 42-58 Stone, Denham, and Garnett, *Think Tanks across Nations: A Comparative Approach*.

the idea; (iv) the matrix of success at times may simply be the magnitude of funding; and (v) there is a risk that think-tank experts may be concerned more with their personal fame than the public good and their contributions may end up being detrimental to the true spirit of democratic decision making.

These observations are a reminder that no system is perfect and that unless it is managed well it might only add one more layer of consultations and suffer from the same defects as an insular bureaucratic policy making process.

Think tanks in India

The “Nehruvian Consensus” was the dominant form of policy analysis in India which relied to a very large extent “upon the economic-expert institutions as the primary tools of developmental policy research... supported by a mainly generalist bureaucracy.”²⁴ The validity of centralized economic planning was legitimized through the establishment of the core policy institution of the Planning Commission, which was equated as a think-tank. It was envisaged that the quantitative technical expertise of the Commission would ensure the achievement of social and economic goals of development through econometric modeling. The Indian Statistical Institute (ISI) emerged as the leading independent professional facility for applications of statistical tools for information and analysis. In the initial planning period international economists were also associated and they emphasized accurate, timely data sufficiency for planning processes. The misalignment between the targets and the actual achievements from 1966, resulted in the dominant position of policy research and decision making function shifting from the Planning Commission to the political and civil service leadership in the mainstream executive government departments. It opened the gates for public policy debates. The blame for the failure of Plans was put on poor implementation rather than the critical introspection of the methodologies of planning itself. The wrong diagnosis resulted in the wrong prescriptions, namely the recommendation to reform the administrative structures and processes for greater efficiency and effectiveness rather than questioning the poor design of the programme or policy itself framed by an economics-centric approach. Thus, professional institutes started emerging

²⁴ “Policy Analysis in India: Research Bases and Discursive Practices” by Mathur, N. & Mathur, K.; in Fischer, Miller, and Sidney, *Handbook of Public Policy Analysis: Theory, Politics, and Methods*, pp 603.

as departments in Universities for imparting professional trainings and technical Decision Support Services for implementation of reforms while overlooking the need for developing an indigenous perspective of hypothesis testing and a multidisciplinary approach to problem definition, analysis and solution.

According to a global survey carried out by the Philadelphia-based Foreign Policy Research Institute in 2007, India was fifth in the list of countries having the highest number of think tanks. India is estimated to have 122 think tanks. The major kinds of think-tanks in India are stated in Annexure-2. Their emergence “as exclusive institutions invested with a primary mission to influence public policy is a post- independence more contemporary phenomenon.”²⁵ They have been categorized by Sobhan into i) exclusively government funded- through Central or State government budget. They may be subordinate or autonomous institutions attached to the Ministries or Universities. Examples would include the Institute for Defense Studies and Analysis (IDSA) under the Ministry of Defence. On the other hand the Institute of Economic Growth is within the Delhi University. ii) Partially/indirectly government funded. These emerged through the inspiration of influential thought leaders such as Rajani Kothari for the Centre for Developing Societies (CDS), V.P Panandiker for the Centre for Policy Research (CPR), K.B. Lall for the Indian Centre for Research on International Economic Relations (ICRIER) and VKRV Rao for the Institute of Social and Economic Change at Bangalore. They had a focused mission and were independent though largely funded through the Indian Council for Social Science Research (ICSSR). They were also able to mobilize funds from the State government. In spite of government funding, these institutions have been largely independent and freely articulated their views without any State constraints. iii) Privately funded institutions such as the Centre for Applied Systems Analysis in Development (Pune) and The Policy Group (New Delhi).

More recently in addition to NGOs, major corporate houses are also entering the fray of supporting think-tanks such as Observer Research Foundation (ORF).

²⁵ Think Tanks in South Asia, Sobhan, R. pp 426 in McGann and Weaver, *Think Tanks & Civil Societies: Catalysts for Ideas and Action*.

Thus, think-tanks in India cannot be standardized as per their performance norms. In recent years, they have largely been owned and funded by the government and do not necessarily attract the best talent as they often turn out to be retirement clubs for bureaucrats, who may continue to defend the status quo, due to habit, dependency on funding source or vulnerability to political pressures. As a result one can assume that there would be a risk that they would be generating studies of limited benefit. While government sponsored research is important, policy innovation is far more likely to originate from independent think tanks which can offer alternative policy formulations that go against conventional thinking and challenge government's exclusionary claims on policymaking. In fact, apprehensions have often been expressed regarding the quality of the government sponsored output as it may be perceived to be of perfunctory nature as they would be intolerant to dissenting opinions.

However, contrary to the above assumption, according to Jyoti Parekh, the Indira Gandhi Institute of Development Research (Mumbai) is influencing policy through capacity-building of policy-makers. This is done through trainings and exposure of policy makers to multidisciplinary policy analysts, publishing articles through peer reviewed technical journals, generating informed public debates, executing sponsored projects in diverse fields and participation in government panels, committees and working groups as well as international conferences. Their distinguished faculty has members on the IPCC and the GEF also.²⁶ A more recent development according to Kuldeep and Navdeep Mathur is that policy scholarship has undergone a sea change in India with the search for alternatives challenging the assumptions of any policy prescriptions. The NGOs and their research institutes have exerted tremendous influence on several policies namely environmental policy, gender budgeting, Right to Information Act, judicial reform, etc.²⁷ But, the views of NGOs and the private sector are obtained in spurts rather than in streams and that too, not systemically.

Prevalent system of decision making process in India and role of "Think Tanks"

When India gained independence, it adopted a Constitution which declared it to be a parliamentary, democratic republic. It is a Union of States, unitary in form and federal in spirit with demarcated Lists for enactment of laws by the Parliament and the state Legislatures. There is a concurrent domain as well where the laws can be enacted either by the Union or States, however, in case of conflict the Union laws will prevail. The Parliament is sovereign. The Executive implements the laws and programmes whereas the Courts interpret the laws. There is a separation of powers.

The Executive comprises of the Prime Minister, the Cabinet and its committees, the PMO and the Cabinet Office and the departments of government headed by ministers. It is a consultative Cabinet system, based on the principle of secrecy, wherein policies are to be formulated by the independent Ministers of the Ministries through a collectively responsible decision making process. The policies are largely formulated in alignment with the governing Party's orientation.

In case of legislative enactments they are first proposed by the Cabinet, then cleared for legislative approval, and then debated in the Parliament. The suggestions for amendments are only considered after the bill has been introduced in Parliament. After passing of the Bill by a majority in Parliament, the President gives formal assent which converts the Bill into an Act.

Presently however, perceptions in regard to the degree of consultation required on policies have undergone a sea change in view of the explosion of knowledge and the multidimensional, multidisciplinary approaches towards decision making. This is on account of (i) the greater ability of the common citizenry to demand provision of social services from the government and (ii) their greater access to information which has been facilitated by the Right of Information Act. As a result, Government Ministries are posting the drafts of their major policies in the public web-domain for eliciting the response and feedback of the public.²⁸ Besides, the enlarged participation from various societal, economic and political players

²⁶ Indira Gandhi Institute of Development Research by Jyoti Parekh, pp 459-460; Ibid.

²⁷ Policy Analysis in India: Research Bases and discursive Practices. Mathur, Navdeep & Kuldeep pp 603-613 in Fischer, Miller, and Sidney, *Handbook of Public Policy Analysis: Theory, Politics, and Methods*.

²⁸ Vaidyanatha Ayyar, R.V., "Public Policy Making in India." (2009), <http://books.google.com/books?id=NIrjysrKvdcC&pg=PA91&dq=think+tanks+and+policy+making+in+India&cd=4#v=onepage&q=think%20tanks%20and%20policy%20making%20in%20India&f=false>.

has challenged the erstwhile elitist clientilism approach. However, when it comes to obtaining suggestions from the public or the think-tanks in the first stage of the policy process i.e. at the stage of framing policy options, the scope of their inputs has turned out to be very limited so far.

The role of academic inputs for a complete look at policy options has been stressed by the highest levels in India. In Mr. Suman's article²⁹, it has been mentioned that the Vice President of India, Mr. M. Hamid Ansari stressed the need for a holistic and creatively structured thinking: "Governments busy with the concerns of the moment sometimes do not have the time and the energy to devote themselves in sufficient measure to matters in the domain of the possible, the probable and even the improbable." Besides, in the same article it is stated that the Group of Ministers (GoM), constituted in the wake of the Kargil War, while referring to research in India in the field of defense observed "Whereas academic research is carried out more or less in a policy vacuum, official agencies undertake their policy making tasks in the absence of the wealth of information available with the academic community. There is a need to ensure that the Government's policy and decision making processes are informed by the findings of rigorous analyses and research."³⁰

As mentioned earlier, the provision of specialized advisory services for the highest government level decision making has largely been the prerogative of career bureaucrats and politicians. It is assumed that they would have necessarily examined all the extant knowledge and progress in their specialised field. The reality, however, is that people tend to follow their personal penchant for finding the latest advancements in knowledge and as a result there are no systemic provisions that ensure a particular quality of decision making. Thus, quality is more a function of an individual's inclination in contrast with the rigour of analysis and outcomes that can be expected from reputable think-tanks. "The need [to call on the inputs from], these institutions stems from two fundamental weaknesses in all modern systems of governance - the constraint of time and the need for specialization. Moreover, in an increasingly complex world, policymaking is too specialized a task to be left only to political leaders and bureaucrats many simply lack the skills while others are constrained by officious culture. By acting as a sounding board for new ideas, think tanks

ensure that public officials have a range of policy options available to them. Most importantly, think tanks foster an important tenet of a democratic society, that the process of policymaking - from advocacy to implementation and evaluation - is the responsibility of civil society and its organizations, and not merely of the government. Policy institutes can present complex issues in ways that can easily be debated by a wide cross-section of society."³¹ The important point here is the kind of process skills coupled with knowledge that civil servants need in order to strengthen professionalism in the services, together with greater receptivity to fresh ideas originating from several sources.

However, a major constraint to reform is the limited tenure of civil servants at the top level which does not exceed two to three years. Thus the administrative system may not provide the conditions for the emergence of "professionals". As per Wilensky's exhortation "any occupation wishing to exercise professional authority must find a technical basis for it, assert an exclusive jurisdiction, link both skill and jurisdiction to standards of training, and convince the public that its services are uniquely trustworthy"³². Though, the western concept of Public Choice theory where "politics is a marketplace in which the politicians are the 'producers', voters are the 'consumers' and votes are the 'currency' " (Farnham and Horton, 1996b:13)³³ is gaining ground. Fortunately, in India the "distrust of big government" has not become ingrained as the public at large views the State as 'mai-baap' - i.e. the mother-father of the people. The scope for reform of the service deliverers and policy makers exists in this scenario.

To overcome these obstacles, the current system of decision making needs to be re-engineered so as to ensure that top policy makers have the skills and incentives to draw on the variety of inputs that can be provided by independent think-tanks.

Policy Alternatives

Policy alternatives have been designed based on the detailed cross-national comparative analysis methodology and on review of the relevant literature.

²⁹Rohit & Singh Pradhan, Sushant.K, "India's Missing Think Tanks," http://southasia.oneworld.net/opinioncomment/indias-missing-think-tanks/discussion_reply_form. accessed on 12/10/2009;

³² Wilensky, Harold L.; (1964) *The Professionalisation of Everyone?* The American Journal of Sociology, Vol-70, No.2 (Sept.,1964), pp 137-158, The University of Chicago Press.

³³ John and Evans Shields, Mitchell,B, *Shrinking the State- Globalization and Public Administration "Reform"* (Fernwood Publishing, Halifax, 1998).pp58

²⁹ Mrinal Suman, "India Needs Independent Defence Think Tanks,"

³⁰ Ibid.

Essentially expertise to enrich policy making can be gained through two approaches. The first is to enhance the capabilities of the existing policy makers - the Ministers and the senior bureaucrats - through exposure and training in best practices for greater openness and receptivity to ideas; and the second is to import the external expertise of think-tanks to enrich the quality of decision making processes. The alternatives, as they will operate with a time lag, would necessitate an amalgamation of elements of both the approaches and would need to consider the duration of decision making processes, the ability to ensure credibility and legitimacy, the role of thought leaders, and estimated costs compared to present systems of decision making. Hence, the alternatives have been suggested accordingly.

Description of alternatives

The identification of policy alternatives was done through two mechanisms; eminent experts based analysis of international best practices and the generic policies³⁴ applicable to the specific circumstances of the case. Based on the above two methods, five policy alternatives have been developed. These are as under.

- i) Alternative-1: Maintain current status quo. Continue with the present system of policy formulation in the Business As Usual (BAU) approach with minor and irregular utilization of think-tanks.
- ii) Alternative-2: Introduce a system of mandatory consultations with designated think-tanks within the Ministry and the sector.
- iii) Alternative-3: Create a separate Taskforce through a co-ordinated mechanism for think-tanks to make presentations on selected topics in the Planning Commission.
- iv) Alternative-4: Establish Special Task forces at the disposal of the Prime Minister to advise on special urgent thematic issues.
- v) Alternative-5: Adopt a Hybrid Model combining features of the previous alternatives.

1.1 Criteria selection and evaluation of alternatives

The issue has vast administrative and political ramifications hence the comparative analysis of best practices, cost effectiveness and risk

³⁴David Leo Weimer and Aidan R. Vining, *Policy Analysis : Concepts and Practice*, 4th ed. (Upper Saddle River, N.J.: Prentice Hall, 2005), pp 216; http://southasia.oneworld.net/opinioncomment/indias-missing-think-tanks/discussion_reply_form. accessed on 12/10/2009;

assessment based on studies in three countries, has been done. The criteria for selection are, therefore, biased in favour of effectiveness, political and administrative feasibility.

1.2 Comparison of Alternatives

- i) Alternative-1 : Maintain the current status-quo :

Under this alternative the present system is maintained, with minor occasional consultation of think tanks on a personal acquaintance basis.

- a) Strengths: Requires little institutional effort as the business as usual approach does not require any alteration in current practices. It panders to popular political equations.
- b) Weaknesses: In the long run this alternative will lead to no further quantum leaps in the policy making processes which is unsuitable for progress and perpetuates the risk of groupthink within the Ministries. The Finance Ministry and the Planning Commission may not be able to obtain fresh innovative thinking from outside of what the line Ministries propose.
- c) Social Acceptability: This alternative is a highly popular measure, especially with those in the Ministries, and those associated with the extant system - though its long term sustainability is doubtful once its consequences become obvious to the population at large.
- ii) Alternative-2: Introduce a system of mandatory consultations by Ministries with designated think-tanks based on the positive elements of the three country comparative study.

Our comparative study of three countries shows that each has adopted a system of seeking value added advice from the various organizations available in the policy domain, while abiding by the constitutional and administrative framework. They have, at their discretion, adopted mechanisms for eliciting external opinions discretely and thereby enlightening the public agenda debate. At the same time it is clear that none of the countries opted to outsource the responsibility for policy decision making. While discordant opinions have often emerged from the various studies on any topic, it was the policy makers' responsibility to make sense and synthesize the rainbow of viewpoints.

- a) Strengths: The robustness of decision making through the participation of the main stakeholders has lent vibrancy to the public policy making process thereby ensuring the probability of greater ownership of, and compliance with, the final outcomes.
- b) Weaknesses: In the US, the fact that e.g., health reform took an inordinate amount of time to be enacted and created extreme political tensions, shows the limitation of a process relying on the agenda setting capabilities of the think-tanks in the “market-place of ideas.” In France, the dominance of the political party in power over the policy processes has resulted in the politicization of the decision making processes. In Canada, the role of the policy makers has been limited to selecting think-tanks for analysis and recommendations on specific issues. However, given the limited capacity of the public administration, there is a large risk that the proposed solutions may be adopted with only limited adaptations and may result in the mere displacement of present systems without providing a really improved system. Cautious assessment should be done as USA, Canada and France have more mature democracies. Thus, cultural and country context is the most important factor to be considered before transplanting specific approaches.

c) Applicability in India

Certain features can be built into extant decision making processes in India without any large scale disruption or threatening status quo through seamless convergence for longevity of reforms. At present, through Cabinet Secretariat directions, the Ministries have to consult other relevant Ministries and the Planning Commission, Finance Ministry and Law ministries in all cases. They also have to state the views of those Ministries and the reasons for their agreement or disagreement. They are also supposed to do consultations with the States, Associations and other representative groups. Through simple amendments to the Allocation of Business Rules and Cabinet Secretariat directions it could be made mandatory for the Ministries to open up their consultations through web-based consultations or seminars and conferences with designated think-tanks. The outcome of such consultations could also be mentioned by the Ministries in their Cabinet notes.

- d) Administrative feasibility: The Ministries which have attached and subordinate offices may orient them on best practices regarding how to elicit expert opinions and ideas through workshops, conferences and seminars. These attached offices could then prepare specific policy briefs to reflect the extant thinking - the pros and cons and the manner in which such thinking could be modified. This will ensure the full utilization of the technocrats positioned in these offices whose voices may be drowned otherwise in the policy making process. This will merely be a capacity and capability building exercise, hence no substantial institutional changes and administrative expenses will be required.
- e) Political Acceptability: The political acceptability by the Ministries of this option will be greater if the ideas generated by the new consultative processes tend to arise from the same school of thought and thus do not threaten the existing system of client and patron dependency. However, in case the new processes generate discordant views, the Ministry may try to scuttle otherwise good ideas which would defeat the purpose of consulting independent external experts in the first place.
- iii) Alternative-3: Create a separate Taskforce through a coordinated mechanism of think-tanks making presentations on selected topics in the Planning Commission.
- a) Strengths: The Planning Commission was historically the technical and economic analyst for determining the outlays for the Ministries based on the Five Year Plans prepared sector wise for the country as a whole. The Planning Commission may need to upgrade its skills in how to elicit diverse opinions rather than continue to consider itself as the repository of all knowledge. What is needed here is the experiential learning of the Methodological Think Tank process whereby a “group of 3-4 methodologists with expertise balanced between quantitative and qualitative backgrounds are invited by the think-tank coordinators (e.g. from the Planning Commission) to serve on a 2-day think-tank to discuss a research question selected from those submitted in response to a call for proposals. During the first half -day, these experts explore the content area with the investigator, often challenging beliefs and assumptions. During the second half-day, the

think tank participants systematically prune potential approaches until a desirable method is identified..... All think tank communities of inquiry must go through 4 stage of development from pseudocommunity (through chaos, through emptiness) to community.”³⁵ This cross disciplinary approach will ensure the generation of ideas that are holistic and partnered. Experience suggests that it is better to have countervailing opinions especially to maintain a balance of viewpoints at the presentation.

- b) Weaknesses: If the existing administrative culture creates barriers to acceptability of outside experts on the panel, the think-tank coordinators from the Planning Commission may not coordinate the various viewpoints in a constructive manner. The “new pathways to discovery” may be obstructed and delay the adoption of otherwise good ideas.
- c) Political Acceptability- The Prime Minister is the Chairman of the Planning Commission and he can instruct the Deputy Chairman Planning Commission to ensure that the “idea sharing workshops” are conducted in a more collaborative and receptive manner. For instance, the identified weaknesses could be overcome by calling on the assistance of professional facilitators to conduct the panel discussions, with the Planning Commission officials chairing the panels.
- d) Administrative feasibility- There appears to be no administrative difficulty in implementing this methodology. As suggested above, it may amount to merely streamlining the existing procedures and gaining practical experience from practitioners of the art. The strengthening of the Planning Commission by hiring professional facilitators on a contractual basis from time to time may help smoothen the adoption of the change.
- iv) Alternative-4: Establish Special Task forces at the disposal of the Prime Minister to advise on special urgent thematic issues.

Akin to the US National Academy of Sciences, a statutory body created by an Act of Parliament may be considered wherein experts in certain areas are peer elected, based on their specific contributions. They would advise on

specific issues and provide both short and long-term views without any compensation. The expectation would be for the tone and tenor of the Academy to create an environment encouraging cross sharing of interdisciplinary scientific advice. In case Academy members are not used to providing policy advice, they may need to be oriented in this respect.

- a) Strengths: The experts', hopefully unbiased technical viewpoints, will ensure that the menu of options is wide enough before any final decision is taken. The credibility and legitimacy of the suggestions would thus be ensured. Even if it is physically not possible for all Academy members to attend conferences convened, it may be possible to get their views by adopting a network process similar to the Canadian virtual network.
- b) Weaknesses: The system envisaged here may be too time consuming for speedy decisions. Its initial establishment through an Act of Parliament may also be difficult and time consuming especially if none of the Ministries are the sponsoring agency in charge. The system of selection of Academy members may also be difficult as the culture of peer sharing is not too firmly embedded in the Indian cultural context and diversity of views may not always be achieved if one relies primarily on peer consensus for selection.
- c) Applicability in India
The consensus building exercise to implement this new system would be immensely difficult. However, its principles could perhaps be introduced into an existing body such as the Prime Minister's Councils on Economic Affairs and on Scientific Affairs. Indeed the Councils might be strengthened through a wider selection process of its members as well as by ensuring that its members should be of such repute so as to be willing to obtain opinions from the widest number of experts through a web-based consultation process.
- v) Alternative-5: The Hybrid Model.

Considering the institutional constraints, cost effectiveness of implementation as well as social acceptability and political feasibility, it is proposed that a combination of all the alternatives presented here, be pursued simultaneously. Under this alternative, the Planning Commission and the line Ministries would adopt a policy-making process requiring them to consult independent bodies such as think-

³⁵David & Crabtree Katerndahl, Benjamin "Creating Innovative Research Designs: The 10-Year Methodological Think-Tank Case Study," *Annals of Family Medicine* Vol 4, No.5, Sept/Oct 2006 (Sept,2006).

tanks, in addition to the present in-house consultative system. Depending on the technical nature of the issues, their political or social sensitivity, their degree of urgency, etc., such consultations might be done through conferences or hearings (as in the US); web-based consultations (as in Canada); use of special task forces consisting of “policy methodologists” and cross-disciplinary subject experts (as in the US); and/or establishment of special bodies responsible for assessing the state-of-the-art on broad economic or science policy issues (as in the US, Canada, and France).

These various approaches can be prioritized for phase wise implementation. There is no requirement for an either or situation. The low hanging fruit arising out of general acceptability and non-contestability needs to be adopted immediately, especially when its chances of demonstrable success are great. This will help produce the desired change in the mindsets and breakaway from the conventional ways of working and thinking. It is through such a multi-pronged approach that the best outcomes can be expected. This will allay the fears of the present decision makers who would be gradually co-opted into the new approaches of doing things especially when their initiatives start working well and they receive accolades for the same.

1.3 Evaluation Criteria for recommending alternatives

The evaluation criteria chosen for assessing the sustainability and improvability³⁶ were those of cost efficiency, effectiveness, equity, political & social acceptability and administrative feasibility.

It is imperative to evaluate each alternative based on the likelihood that each one will achieve the desired policy objectives and impacts that are outlined above.

2. Recommendations And Description Of Preferred Alternative

On the basis of Criteria Alternative Matrix (CAM), Policy Alternative Five is the preferred alternative.

2.1 Outline of implementation strategy

Regarding policy implementation, it is necessary to take the following factors in mind.

i) Constituency Building

Given that innovation and change always encounter the opposition of those negatively affected, such as in this case those schooled in the traditional mode of policy making, it is necessary to design and implement a very careful consensus building strategy. The report recommends careful design of a consensus-building strategy, starting with a conference aimed at finding common ground among the main stakeholders regarding the country's policy processes. To that intent such a conference would ensure that all participants share the ideal of achieving high quality policies, then consider the consequences of the present processes, and hopefully realize the need for systematically opening them up, ideally along the lines recommended here. It includes the following points:

- a) Find through the “Search conference” technique a common ground among the various stakeholders. To that intent and after realizing that they all share the ideal of achieving high quality policies, participants would brainstorm on the consequences of the present policy-making processes, hopefully agree on the need to systematically open such processes, and recognize the availability of alternatives such as the five presented here. On the assumption that they would support the fifth alternative as recommended in this paper, the proposed policy change will need to be approved in the Union Cabinet, and so support from all Ministers will be necessary.
- b) Inform the media about the policy options thoroughly and gain support of key journalists for the chosen alternative.
- c) Once the alternative is approved, it is necessary to create and distribute an understandable message for the public, to show the long term benefits that this policy brings for the public at large. A separate message may need to be directed to all members of the academic community to show that that they will benefit as well.
- d) Give the Ministries ample time to make necessary consultative changes.
- e) Create a clear message for the academic think tanks to be more up to date in their knowledge, for if they come with nothing brand new, they are likely to lose credibility more easily than the civil servants.

³⁶David & Crabtree Katerndahl, Benjamin "Creating Innovative Research Designs: The 10-Year Methodological Think-Tank Case Study," *Annals of Family Medicine* Vol 4, No.5, Sept/Oct 2006 (Sept,2006).

- f) Throughout the first few months of implementation, there needs to be communication about steps being taken for improving the policy making processes.

ii) Organizational Design

Given the large number of Ministries and organizations in the policy arena, there needs to be one coordinating institution. The Planning Commission has the legitimacy to take on this role as planning and coordination, consultations, advisory functions and earmarking outlays are its mandate.

The executing agencies' responsibilities for each aspect of the policy process should be:

- Increasing their capabilities for managing consultative processes involving stakeholders with diverging views;
- Improving delivery of policies implementation;
- Improving services to the academic community, through idea exchanges and training services for capacity building in policy making;
- Setting a monitoring mechanism for enforcement of policies for proper and timely feedback to eliminate weak or wrong implementation;
- Coordination of taskforces to improve quality of decision making;
- Monitoring, evaluation and communication of results.

In addition there might be a need for a special unit of government to synthesize experience with various methods of facilitation of the policy process, and dissemination of best practices.

iii) Mobilization of Resources

Many of the resources to implement this policy will come from the central government's budgetary resources. The budgetary allotments for consultations and web-enabled websites may need to be strengthened.

iv) Timeline for Implementation

Various activities and the timeline for the suggested alternative are tabulated below and the graphic representation is given in Annexure-3.

Time line for Implementation	
Activity	Time Period
• Search Conference and consensus building	: 3 months (yr1,qtr 1)
• Orientation of Ministries for action plans	: 3 months (yr1,qtr 2)
• for identification of think-tanks	
• Issue of Cabinet Order	: 3 months (yr1,qtr 3)
• Identification of sector-wise think-tanks	: 6months (yr1, qtr4 &
• and constitution of Task Forces	yr 2, qtr 1)
• Follow-up studies on implementation	: 6 months (yr 2,qtrs 2&3)
• Release of funds	: 9 months(yr2,qtrs2-4)
• Advocacy	: 21 months (yr 2, qtr 2 onwards)
• Monitoring and Evaluation for feedback and	: (yr 2, qtr 3 onwards)
• necessary corrective action 18 months	

2.2 Monitoring and Evaluation (M&E)

It is necessary that the contribution of the policy to the proposed goals and objectives be constantly monitored and evaluated. To that intent, a credible web-enabled system should be established to monitor, on a monthly basis, the implementation of the indicators so that mid-course corrections can be taken as needed. After implementation for a year or two, an ex-post evaluation study should be conducted and should provide the basis for consultative meetings to further streamline the procedures as needed.

Moreover, an M&E system will also allow the State Governments to take the corrective measures at their level.

2.3 Limitations, risks and unanticipated consequences

Among the biggest limitations of this strategy are (i) the lack of concrete quantitative data available due to the time lag period from the initiation stage to the incorporation stage and finally to the implementation stage to give due credit to the idea champions; ii) the intra-country political differences which may make the drawing of comparisons and implementation of features difficult; and above all, iii) the continued political and administrative support for the policy depends on the efficient

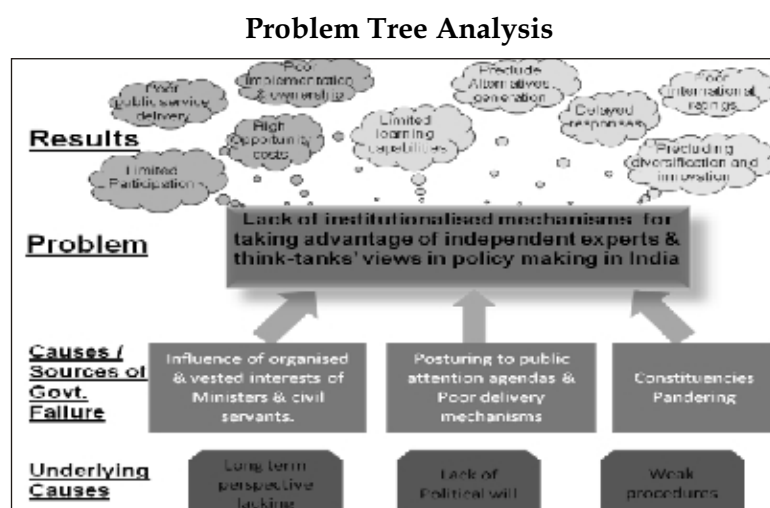
internalization of the principle of wide consultations. In a democracy the representative government would like to take credit for its policies and decisions and reap advantages in the polls. This enlarged base of consultations may make it difficult to identify the originator of the ideas. Perhaps, like in France, the political parties may like to have their own think-tanks to suggest ideas on which they can claim exclusive ownership. iv) Any deterioration from the present quality of decision making will have an adverse effect on the credibility of the government, though the political analyst may be shielded from its repercussions.

3. Conclusions

As suggested in this report, the best policy alternative to improve India's policy making processes, is a multi-pronged approach wherein a sequenced approach is pursued which is gradualist and well thought out.

The recommended alternative is simple and pragmatic to implement. It requires a broad consensus on the need to open up the system followed by information sharing of all the stakeholders to ensure that they are kept informed of the progress in the design and implementation of the reform and do not perceive its steps as reform by stealth. Continued public policy dialogue in the public domain is likely to improve the quality of policy making, ensure broad based support for such policies, and promote India's competitiveness in the world.

Annexure-1



Key Stakeholders :

1. Central Government - Ministries of Planning and Finance

Primary Stakeholders :

1. Beneficiaries of status quo in Ministries and political parties
2. Disenfranchised poor

Secondary Stakeholders :

1. State Governments
2. Social Scientists, econocrats
3. Technocrats
4. Scientific Research Institutes
5. Joint Parliamentary Committees

Others :

1. Media
2. IFIs - World Bank, IMF, etc.

Annexure-2

Think Tanks in India

	<i>Institution / Funding</i>	<i>Location</i>	<i>Funding</i>
<i>Fully government India</i>			
1	Institute of Economic Growth, Delhi University	New Delhi	
2	National Council of Applied Economic Research	New Delhi	
3	National Institute of Public Finance and Policy	New Delhi	
4	School of International Studies, Jawaharlal Nehru University (captive institution)	New Delhi	
5	Centre for Economic Studies and Planning (captive institution), Jawaharlal Nehru University	New Delhi	
6	Centre for Policy Research (funded by state government)	Trivendram	
7	Madras Institute of Development Studies, (funded by state government)	Chennai	

Annexure-3

8	Indian Council of World Affairs (funded by Central Bank)	New Delhi	
9	Institute for Defense Studies and Analysis	New Delhi	
10	Institute of Development Studies, (funded by state government)	Jaipur	
11	Indian Statistical Institute	Calcutta	
12	Institute for Social and Economic Change	Bangalore	
13	Center for Economic Studies, Department of Economics, Presidency College (captive institution)	Calcutta	
14	Delhi school of Economics, University of Delhi (captive institution)	New Delhi	
15	Department of Defense and Strategic Studies, University of Poona (captive institution)	Pune	
	<u>Partially government funded</u>		
16	Center for Policy Research	New Delhi	
17	Center for the study of Developing Societies	New Delhi	
18	Center for Studies in Social Sciences	Calcutta	
	<u>Non-government funded</u>		
19	Peace Research Center	Ahmedabad	
20	The Policy Group	New Delhi	
21	Indian Council for Research on International Economic Relations	New Delhi	
22	Center for Applied Systems Analysis in Development	Pune	

Source: "Think Tanks in South Asia: An Overview" by Sobhan, R. pp 451-452 in McGann, James G., and R. Kent Weaver. *Think Tanks & Civil Societies: Catalysts for Ideas and Action*. New Brunswick, NJ: Transaction Publishers, 2000.

Implementation Schedule

Tasks	Duration (in quarters / years)											
	Year - 1				Year - 2				Year - 3			
	Q1	2	3	4	1	2	3	4	1	2	3	4
Search Conference and consensus building												
Orientation of Ministries for action plans for identification of think-tanks.												
Issue of Cabinet Order												
Identification of sector-wise think-tanks and constitution of Task Forces												
Follow-up studies on implementation												
Release of funds												
Advocacy of practices												
Monitoring and Evaluation for feedback and necessary corrective action												

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THE MIRACLE THAT ALMOST WASN'T

Alok Kumar*

Abstract

The purpose of this piece is not to belittle South Korea's achievements. It has a size of just 3% of India's geographic area and a population that is roughly 4% of India's, yet its gross output (in GDP terms) stands at an amazing 80% of the total Indian output. Another way of looking at the enormity of their achievement is to imagine just the two states of Punjab and Haryana producing 80% of India's current GDP. For a country whose development prognosis in 1960 was assessed as being worse off than Sudan, it has done remarkably well for itself considering that it is now a member of the OECD (the exclusive country club of developed nations). The achievements are not limited to the economic front; their social indicators are also enviable. Hence the South Korean people are perfectly justified in taking immense pride in their achievement and lauding the role of the State and its policies, as was evident from the presentations made by the faculty of the Korean Development Institute (KDI). However in imbibing the South Korean lessons for our own country, it is easy to get dazzled by the scale of the successes and in the process paper over the hidden failures and potential hazards. This article therefore seeks to critically analyze the role of the state in the economic growth of South Korea and other East Asian economies in order to present a counterpoise to the conventional wisdom relating to the state's role in development. Further it also attempts to draw appropriate policy lessons and examine its replicability in the context of a country like India.

East Asian Miracle

The economic growth of the High Performing Asian Economies (HPAE) in general and South Korea in particular during the period 1960-1996 confounded many due to their inability to explain the astoundingly high and sustained rates of growth that were hitherto unprecedented in the history of the world. Such was the impression created upon development policy thinkers that it was christened as the "East Asian Miracle". The World Bank made an in-depth study¹ of this phenomenon and attributed it to, among

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¹ World Bank (1993) The East Asian Miracle, World Bank, Washington DC.

other things; state led industrial development planning that rapidly created an industrial infrastructure which was sustained through exports by integrating into the world market. The miracle can be distilled into seven core characteristics that set them apart from other developing and developed economies: rapid economic growth, rapid output and productivity growth in agriculture; relatively higher rates of manufactured exports; higher savings leading to higher growth rates of investments; higher growth rates in human capital; and, higher rates of total productivity growth². The high growth rates (vis-à-vis developed world standards) set off innumerable alarmist books and polemical articles that sought to explain this phenomenon either in terms of cultural trait (The self-confidence generated by spectacular economic growth was in part responsible for the attempt to list the moral, social and political ingredients in Asia's recipe for success. Without the "Asian miracle" we might never have heard of "Asian values") or in terms of the fact that somehow centralized governmental planned and directed growth resulted in higher growth rates compared to free market approach followed by the West. Despite the East Asian Financial crisis, influential commentators articulated the view that state industrial planning played a major role in the success of the East Asian countries³.

The myth of the "Miracle" debunked

It is a truism to state that economic expansion represents the sum of two sources of growth. On the one side are increases in "inputs": growth in employment, in the education level of workers, and in the stock of physical capital (machines, buildings, roads, and so on). On the other side are increases in the output per unit of input (termed TFP or total factor productivity); such increases as may result from better management, technology or economic policy, but in the long run are primarily due to increases in knowledge.

As Krugman⁴ puts it, the HPAE achieved rapid growth in large measure through an astonishing mobilization of resources and not through the increases in TFP. Therefore the so called "miracle" can be explained in terms

of extra-ordinary accumulation of labour and capital inputs and is not really as mysterious as it has been claimed to be. It can easily be explained in terms of higher accumulation of the factors of production through the conventional growth accounting theories. After a careful analysis of numbers, Young (1992) reported that the rates in the growth of efficiency (TFP) in the East Asian "tigers" were no higher than those in many advanced nations; in many cases it is worse. Just as the high growth rates experienced by the former Soviet Union in the 1950s petered out, any growth led by mere increases in inputs, without an increase in the efficiency (TFP) with which those inputs are used shall eventually run into diminishing returns.

Social Capital as a prerequisite for sustaining growth

Another insight that ensues from Young's analysis is that having a relatively well trained, educated and a healthy labour force was a critical element in the rapid export growth of these economies. One of the major initial advantages of S Korea was their comparatively high education standards. Rodrik (1994) provided convincing evidence that relative to their income levels, the East Asian economies had high educational attainments in 1960. As was pointed out in the presentations, the base of the South Korean development phenomenon in the 1970s was built upon the effective land reforms in 1950s, the increase in agricultural productivity, incentive based Semaul-un-dong movement to ensure infrastructure in rural areas, the primacy given to educating the work force and imparting them necessary vocational skills and higher standards of population health parameters. It must therefore be remembered that the growth would not have been possible in the absence of these building blocks of investment in the social capital.

State v/s Market

It is tempting to get carried away by the notion of government led growth in view of the extensive literature documenting market failures and the rationale for state action to correct these failures. The examples of East Asian economies are often cited as illustrations of successful state interventions. However, the government intervention may not work effectively if that government banks on replacing market rather than complementing it. Further, there has been much less documentation regarding government failures and the disastrous consequences.

² Brent Davis (2000) India and the East Asian Miracle <http://epress.anu.edu.au/agenda/007/01/7-1-A-5.pdf>

³ See for instance Wade, R. (2000) "Wheels Within Wheels: Rethinking the Asian Crisis and the Asian Model." and Stiglitz, J. (1999) "Lessons from East Asia."

⁴ Krugman Paul (1994): The Myth of Asia's Miracle. <http://www.foreignaffairs.com/articles/50550/paul-krugman/the-myth-of-asias-miracle>

Stripped down to its barebones, the much vaunted “industrial policies” that are cited as illustrations of successful government interventions for fast tracking growth comprised of the following: targeting certain favoured sectors such as steel, electronics, ship building, and automobiles and making them extremely lucrative by allowing them to earn rents (super normal profits) through state dole outs, keeping the wages artificially low⁵, directed lending at subsidized rates to the select firms -the Chaebols⁶. (It may be a good idea to briefly explain, even by a foot note, what are the 'Chaebols') Clearly, this allowed some South Korean firms to establish themselves in imperfectly competitive industries, where the costs of entry were high. This was particularly so when the industries were subject to the “market test” and forced to become competitive in order to meet the required export targets. However despite notable successes, there were evident costs and risks associated with these efforts. For often, instead of encouraging "winners", policymakers also wound up subsidizing "losers". These efforts proved to be very costly to South Korea, as support for seventy-eight bankrupt companies in the mid-1980s required the write-off or rescheduling of billions of dollars in loans. Poor quality policy loans extended by domestic banks to poorly performing firms are still a concern. In fact some commentators see this “march towards destruction by domestic credit expansion” as the main cause for the crisis in 1997. The net consequence of this policy was that even during high inflation periods, government mandated savings by ordinary workers mopped up by banks at close to zero interests rates was lent at subsidized rates to Chaebols, leading to huge state directed transfers of wealth, which in turn led to rent seeking of enormous proportions. As Choi⁷ points out, as much as 10 percent of all foreign loans were kept by President Park's government for personal and political uses, the pricing of foreign capital goods was between 20 percent and 100 percent higher in many public projects than the norm, and the difference was kicked back to key figures in the ruling party.

⁵ The repression of wages was achieved through restrictions on labour bargaining and union activities.

⁶ See for instance Anne O Krueger and Jungho Yoo : Chaebol Capitalism and the Currency Financial Crisis in Korea

⁷ Choi, Y. (1994) “Industrial Policy as the Engine of Economic Growth in South Korea: Myth and Reality.” in *The Collapse of Development Planning* ed. Peter Boettke. New York, NY: New York University Press. pp 240-250

Besides, it led to creation of huge business entities controlled by family patriarchs through a maze of cross holdings that led to serious corporate governance problems. The entities were so intrinsically linked to each other and to the banking and financial markets, that failure of one Chaebol could create a crisis of confidence in the whole economy that could potentially come crashing down like a pack of cards forcing the Government to bail them out repeatedly on account of “too big to fail” syndrome. The Government did try to control the Chaebols in the aftermath of the crisis in 1997, but most of the reforms have not been followed through once the crisis blew over and the structural weaknesses continue to persist.

Lastly, it is also pertinent to note point to a key lesson that emerges from the South Korean experience. And that is government led growth should not be taken to automatically translate into government “enacted” growth. The Korean Government made liberal use of the private sector and gave them considerable leeway and autonomy to run their operations, there by permitting them to play a major role in the economy. It actively created and promoted market institutions such as capital markets to trade in long term bonds and equities. Powell⁸ (2004) argues that while the focus had largely been on the ways governments interfered in the economy, less attention has been paid on where they did not intervene. He cites the indices prepared by the Economic Freedom of the World report to indicate that these markets were probably the most free in the whole world during the period under consideration.

Conclusions

It would be erroneous to conclude that the State directed development planning by the government was solely responsible for the rapid growth in the South Korean economy. It was a combination of state policies along with appropriate incentives for the private sector and a committed and competent bureaucracy⁹ which in totality contributed to the success.

Attempts to guide the market through selective state development planning suffer from the same knowledge problem that socialist planners do. Even if

⁸ Powell, Benjamin (2004) : State Development Planning: Did it create the East Asian Miracle? Independent Institute Working Paper No. 54, pp 21-22 http://www.independent.org/pdf/working_papers/54_state_development.pdf

⁹ According to a recent survey ranking bureaucracies of 12 Asian economies, ranking from most efficient to the least efficient : Singapore, Hong Kong, Thailand, South Korea, Japan, Malaysia, Taiwan, Vietnam, China, Phillipines, Indonesia and India: NC Saxena (2010): The IAS Officer- Predator or Victim?, The Administrator, Vol 51, Number 1, p96

somehow development planners have the right knowledge, they still have to solve the “public choice incentive problem” that is to create the right incentives for firms to deliver. South Koreans sought to achieve this by linking the state aid to export linked targets. But despite the “hard” state which could ensure compliance at the pain of penalty, this was only partially successful.

Given that the South Korean policies were implemented in a regime of strict political control, where many of the painful policies could be pushed through by an authoritarian leadership in an environment where the interest groups had not solidified enough to register their protest in any meaningful manner. Thus it is instructive to note that the South Korean lesson is only partially relevant for a fractious democracy like India. The political landscape here is currently dominated by coalition politics and entrenched interest groups with a relatively “soft” state which has a limited capacity to enforce unquestioning compliance by the private sector to the state objectives. The unfettered and extraordinary extraction of rents from the ordinary citizen to the private corporations is unthinkable in the democratic polity like ours.

Lastly, it is imperative to take note of the social and agricultural base upon which the economic growth took-off. By contrast, in India the high growth rates have not translated into better indicators for health, hygiene, nutrition and quality of education (NC Saxena, 2010), largely because of poor service delivery and weak governance. Given that agricultural growth has been stagnating and that productivity levels in agriculture are still lower than world standards, the sustenance of current growth rates is by no means guaranteed. Naïve projection of past growth rates into the future and drawing up illusory scenarios of becoming an economic super-power flies against the economic logic of the law of diminishing returns. I am not convinced that we are doing as well in terms of growth rate as our potential. (Till now one has been talking about what happened in South Korea. The conclusion that Indian social and agricultural base is different is well taken. But if ultimately the suggestion is to look at China, then a little about (i) what and how China has handled it growth, and (ii) how is their model different from the South Korean and the Indian models needs to be given. In the alternative the author may consider deleting the sentence “We only have to look to China to see that there is no cause for us to be so self-

congratulatory”). We only have to look to China to see that there is no cause for us to be so self- congratulatory. The critical lesson for India therefore is that one should not let the current high growth rates delude us and lead us into a false sense of complacency.

Instead, we should continue focussing in increasing knowledge and innovation, step up the effectiveness of investments in the social capital which alone is going to provide us a sustained competitive edge as the first flush of growth on account of capital investments and increased labour force participation rates plateau out.

Implementation of Concept of Defensible Space for Crime Prevention

Anuradha Sharma Chagti*

Abstract

The U.S. government spends millions of dollars each year to provide low rent housing for the poorest families. It has built more than a million housing units since the Great Depression era. Even though there is a great need for public housing, many of the housing developments are being demolished or lie vacant because of prevalence of crime and vandalism in such developments. A case in example is the Pruitt-Igoe, a 2740 unit public housing project built during the 1960s which was torn down after only 10 years.

A study of literature on the relation between crime and public housing shows that although the demography of people living in public housing and the social factors associated with them plays a significant role in the prevalence of crime and vandalism and the deterioration of such developments, they can be prevented through the application of the defensible space concept in the built environment. The concept introduced by Oscar Newman describes how the architectural designs promote or hinder perception of ownership of public spaces and surveillance of immediate environment that has an immediate impact on many of the acts of crime and vandalism.

Since the introduction of the concept by Oscar Newman, the U.S. government's policy has swung from remedying physical environment to the social factor according to the popular literature of the day. Our study concludes that the government must pursue both strategies to achieve the goal of providing quality housing to the poor in a cost efficient manner and to revive the disadvantaged communities in the public housing developments.

Literature Review

We reviewed the history of public housing in the U.S to find out when and why the federal government undertook to provide public housing and what shape it has taken today. We studied literatures on the various forms of

urban planning implemented through the years to understand the designs of public housing.

The U.S. Department of Housing and Urban Development (HUD) have conducted some surveys over the years to associate crime with different social factors arising from the demography of the residents or to the type and size of public housing developments to explain the cause of high rate of crime. The survey describes the nature of crime, the types of building constructed, size of public housing developments, the occurrence of crime within different types of building or size of development.

Then we studied the history of the concept of Crime Prevention Through Environmental Design in U.S.A. The contributions of Jane Jacobs and Oscar Newman were studied in detail and the application of the concept of defensible space as envisioned by Oscar Newman was examined thoroughly. We have presented arguments both from literature supporting and criticizing the concept as the cure all for America's crime problem in public housing.

Finally we have studied the implementation of the concept by HUD in housing design and also other programs and strategies for crime prevention and control.

Introduction

The US Congress started the Federal Public Housing Program in 1937 under the US Housing Act during the depression era. It was designed to "create employment opportunities, stimulate the economy, remove slums and to provide safe and decent low rent housing to poor out-of-work families, the elderly and the person's with disabilities." (Stegman, 2006) Public housing are categorized as high-rise (blocks of flats), low-rise (multi unit walk up blocks), town house (terrace, row, semi detached, duplex, triplex, and cluster type) and scattered site (free standing) (Matka, 1997). Most of the public housing was built in 'isolated blocks of high rises or overwhelming concentrations of low-rise buildings.' (Solomon, 2006) At present the US Department of Housing and Development (HUD) estimates the number of public housing developments at 14,000 with 1.12 million units nationwide. The HUD administers the public housing programs with a network of around 3200 state and local Public Housing Authorities created under the State laws. (HUD, 2001 pp 1) The units are as under:

*The author is Deputy Secretary, DoPT

Table 1

Size of Public Housing Developments	Percentage of All Public Housing Authorities	Percentage of all units
Small	(<500 units)	87% 27%
Medium	(500 – 1249 units)	8% 15%
Large	(1250+ units)	5% 58%

(Source Holzman et al, 1996)

Very poor families normally occupy the Public Housing Developments. The residents comprises of households often headed by single mothers of African American origin, 35% have incomes less than \$5000 a year, less than half were employed and cycled in and out of employment. (Stegman, 2006) During the decade 1990 to 1999 the Public Housing Authorities (PHA's) in USA spent \$4.0 billion on various community based crime control programs. (HUD, 2001) This placed a very heavy burden on the public exchequer.

The main types of crime reported in public housing developments across the country are gun violence, homes broken into, assault, robbery, drug dealers and gang warfare. (Zelon et al, 1994) Also public housing faces vandalism in the form of broken streetlights, damaged elevators, doors broken or removed, trash and graffiti. Holzman et al (1996) using a sample of the nations largest PHA's (those with more than 1250 or more units) found that even though public housing high-rises may not be as criminogenic as the conventional wisdom would lead one to believe, however, disorder is all too common in low-income, inner-city neighborhoods. Furthermore, criminologists have long noted the association between crime and disorder and the fact that a disordered environment can engender a sense of unease and fear of crime. Their findings further suggest that town houses and low-rise housing might be even more vulnerable to crime. From time to time, criminological research even casts doubt on the notion that big-city public housing is more criminogenic than private-sector housing in the same neighborhoods. Their surveys have shown that fear; crime and disorder vary by type of building size and the size of the PHA. The low rise and town houses suffer the most.

Consequences of High Crime and Disorder in Housing

The consequences of crime are physical, economic and social. Physically the area perceived to have high crime rates tends to become more disorderly,

trash and graffiti litter it, roads and parks are less used and it starts giving the appearance of a neglected area. This leads to economic consequences as those who can afford better housing outside the area move out the first ones are mostly with small children thus depriving the neighborhood of its diversity and potentially more productive people, higher turnover of residents and property prices start to fall down. Socially the people left in the area cut themselves off from the area by installing more locks, not using streets, parks and other neighborhood areas, distancing themselves from neighbors and not participating in community activities. Thus community cohesiveness suffers.

James Q. Wilson and George Kelling (1982) developed the "broken windows" thesis to explain the signaling function of neighborhood characteristics. This thesis suggests that the following sequence of events can be expected in deteriorating neighborhoods. Evidence of decay (accumulated trash, broken windows, deteriorated building exteriors) remains in the neighborhood for a reasonably long period of time. People who live and work in the area feel more vulnerable and begin to withdraw. They become less willing to intervene to maintain public order (for example, to attempt to break up groups of rowdy teens loitering on street corners) or to address physical signs of deterioration. Sensing this, teens and other possible offenders become bolder and intensify their harassment and vandalism. Residents become yet more fearful and withdraw further from community involvement and upkeep. This atmosphere then attracts offenders from outside the area, who sense that it has become a more vulnerable and less risky site for crime (Taylor et al., 1985).

Strategies for Crime Control

The strategies for crime control can include methods like increased surveillance by the police; building high fences and gated localities to keep people out and in some cases even demolitions of Public Housing Developments have been carried out. (Stegman, 2006) The Worcester Housing Authority applied more stringent lease enforcement, increased police patrols, the use of security cameras, tougher admission requirements for tenants - those with histories of crime and violent behavior are no longer welcomed - and active crime watch participation (Plumb, 2005). Boston has employed private cops to patrol the most dangerous beats. (Swidley, 2006). In Kinston a special Unit of the Department of Public Safety stands guard while small children play. (Marshall, 2006) In Rockford Housing Authority in Illinois has installed wireless cameras to a central location for surveillance

and monitoring. (PR Newswire Association, 2006). All these solutions are expensive and cost the people and the area dearly. However the question that arises is 'whether there is something wrong in the way these Public Housing Developments were designed which led to higher crime rates being there?' A number of practitioners, architects, and criminologists have found that are ways in which designs of buildings and neighborhoods can affect the rate of crime in an area. A history of the attempts at crime prevention through environmental design (Robinson 1997) is presented below:

Elizabeth Wood was a practitioner at Chicago Housing Authority. Her belief was that managers of residential areas could never do enough to stop the damaging actions of even a small group of hostile or indifferent tenants. While Wood worked for the Chicago Housing Authority, she strove to make surrounding residential environments of lower class citizens more rich and fulfilling. As she attempted to bring about design changes aimed at enhancing quality of life for residents and increasing the aesthetic qualities of the residential environment, she also developed a series of guidelines for improving security conditions of these environments. One of her design goals was to improve visibility of apartment units by residents; another was to create spaces where residents could gather, thereby increasing the potential for resident surveillability. However her attempts were never picked up.

Jane Jacobs in 1961 was one of the pioneers who observed the working of cities and wrote her seminal book 'Death and Life of Great American Cities'. Hers was among the earliest discussions of urban decay and its relationship to crime. She sparked the widespread interest in how environmental conditions could be related to crime prevention and her writings greatly influenced Oscar Newman and C. Ray Jeffery.

Schlomo Angel (1968), in *Discouraging Crime Through City Planning*, noted how citizens could take an active role in preventing crime, starting with a diagnosis of which environments afford the most opportunities for crime to occur. Angel thought that certain areas suffer from higher rates of crime than other areas because of the higher levels of opportunity that rational offenders could take advantage of. Angel posited that deterrents to crime include high-intensity use of an area which provides large numbers of effective witnesses and low intensity land use which decreases crime because of lower numbers of potential victims. Angel's ideas regarding changing the physical design of environments revolved around channeling pedestrian traffic and zoning businesses into areas where mass transit and parking facilities are near.

Oscar Newman an architect advocated the concept of 'Defensible Space'. His projects began in 1969 when the National Institute of Law Enforcement and Criminal Justice (NILECJ, now the National Institute of Justice) undertook a series of research projects to appraise the relationship between the physical environment and risk for criminal victimization.

C. Ray Jeffery a criminologist was the first to use the concept of "Crime Prevention Through Environmental Design" in 1971. Jeffery's book by the same name encouraged crime prevention strategies aimed at changes to the physical environment and increased citizen involvement and proactive policing. Jeffery contended that the way to prevent crime is to design the "total environment" in order to reduce opportunities for crime. Jeffery's work was based on the precepts of experimental psychology. His concept arose out of his experiences with a rehabilitative project in Washington, D.C. that attempted to control the school environment of juveniles in the area. Rooted deeply in the psychological learning theory of B.F. Skinner, the approach emphasized the role of the physical environment in the development of pleasurable and painful experiences for the offender that would have the capacity to alter behavioral outcomes. His original CPTED model was a stimulus-response (S-R) model positing that the organism learned from punishments and reinforcements in the environment. Jeffery "emphasized material rewards . . . and the use of the physical environment to control behavior". The major idea here was that by removing the reinforcements for crime, it would not occur.

These attempts described above have continued in the name of 'Crime Prevention through Environmental Design' or CPTED which is aimed at "identifying conditions of the physical and social environment that provide opportunities for or precipitate criminal acts and the alteration of those conditions so that no crimes occur." (Robinson 1997) There have been a number of studies both in USA and in other parts of the western world. A list of the studies conducted so far from 1970's to 1990's (any study during the last 20 years?) is attached at Annexure I

Before the concepts and implementation of these concepts are examined it is important to understand why American cities are what they are.

History of Urban Planning in USA

The Urban Planning experience in USA can trace its roots to the concept of the Garden City propounded by Ebenezer Howard. Howard looking at the nineteenth century decay of cities – especially London-advocated self-

sufficient Garden Cities, encircled by green agricultural land. The Garden City was to be divided into quadrants with the industry in one preserve and the housing, schools and greens in the others. The center of the town was the commercial and cultural hub. His approach to the city's problems was to fit everybody into safe undisturbed boxes. This translated into the model company towns in the country. Radburn in New Jersey is the finest example of this type of city in USA. The Garden City concept was picked up by Sir Patrick Geddes in the 1920's and applied to regional planning. A movement to build new towns or cities and decentralize the big cities, enterprises and population started. Lewis Mumford, Clarence Stein, and Catherine Bauer were all a part of this campaign and are termed as decentrists.

The most dramatic of the interventions, which evolved as a counter to this was the Radiant City concept by Le Corbusier. His concept was the most radical, composed not of small spread out suburban towns but skyscrapers – 48 to a town – housing 1200 people per acre. This was the city of the motorized car. 95% of the land would be left free to parks and other green spaces. This concept was hailed by many and was embodied in scores of public housing and garden office complexes. Pruitt-Igoe public housing in St. Louis was an illustrative example of this. It was the city's answer to the decentrists garden city.

At around the same time USA saw the emergence of the City Beautiful concept by Daniel Burnham of Chicago. The idea was to build big baroque monuments in the city to uplift it. These monuments can be seen in Chicago, Benjamin Franklin Parkway in Philadelphia, and Civic Centers in St. Louis and San Francisco. These monuments did nothing to alleviate the ills of the cities. (Jacobs 1961)

Though the three schools of thought seem very divergent they had some similarities:

- They defined rigid norms, which did not allow for an innovation or variance by the occupants.
- They advocated only single land use planning rather than mixed land use planning
- They designed the cities not for pedestrians but for motorcars.
- They viewed the streets as separate entities from the dwelling and the commercial establishments.
- They advocated blocks/ neighborhoods for segregated populations, they did not believe in diversity.

- All believed that allowing a lot of open spaces in the forms of parks as essential to the well being of the citizens.
- The city designs promoted a sense of “anomie” and everybody minded their own business.

Contribution of Jane Jacobs

Jacobs (1961) in her book “Death and Life of Great American Cities” expounded the idea of a city as a living being that is born, grows, matures, decays and can revive. The elements of the city, “the people, streets, parks, neighborhoods, the government, the economy,” cannot exist without one another and are, like the organs of the human body, connected with each other. In this evolutionary approach streets play an important role: they are the lifeblood where urban dwellers meet each other and where trade and commercial activities take place. The street is the scene a “sidewalk ballet,” according to Jacobs, which determines the security, social cohesion and economic development of cities. From this perspective, even taking out the garbage or having a talk with a passer-by is a deed of dramatic expression. These every day acts make a city into a vital city.

There are four conditions of the “sidewalk ballet”. Firstly, neighborhoods should have several functions, so that there are people on the streets at all hours of the day. If in a neighborhood there is only activity at night, or in the morning, as in many business or commuter areas, activities like hotel and catering, culture and retail trade hardly get the chance to blossom. In neighborhoods with a mix of functions, however, throughout the day these facilities are needed which in itself starts a process of reinforcement. Secondly, Jacobs believes that a city benefits from short building blocks and an intricate street structure. Pedestrians must have the possibility to go round, take a different route sometimes, and thereby discovering something new. Thirdly, there should be enough variation in the residential area: buildings that differ in age, level of maintenance and function contribute to a varied and colorful city image. Lastly, Jacobs advocates a high degree of concentration of people in one place. She supports compact city neighborhoods where different kinds of households and individuals (families, elderly, entrepreneurs, artists, migrants, students) live together. The fact is that this variety on the small scale results in the critical mass, which is necessary to maintain an equally varied supply of local facilities. In such a busy and diverse neighborhood the local supermarket, the kebab shop and the chain store can coexist without problems. In this way, urban

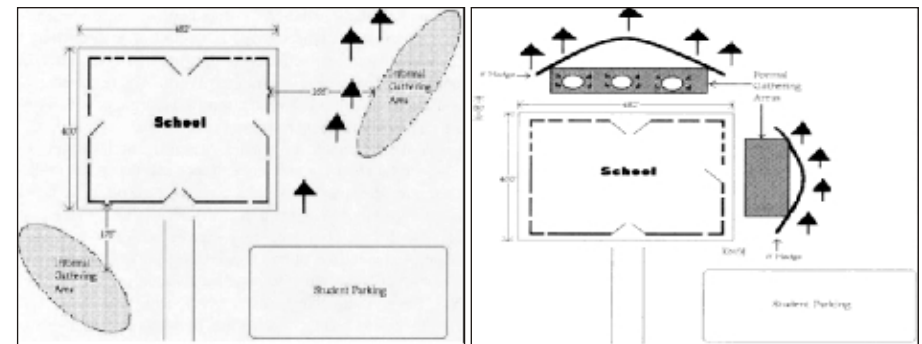
diversity ensures that there are people close by at every moment of the day. If there are enough "eyes on the street," she claims, crime is not given a chance and the collective feeling of security increases. The variety in functions, buildings and people also plays an important role in maintaining social cohesion. It is not so much about keeping in touch with the neighbors, but rather about interaction on the street, at the bus stops or in shops. This is how people get the feeling of belonging to a community, or being at home somewhere. Not only socially, but also economically, urban diversity is of great importance, according to Jacobs. In an area of the city with different kinds of suppliers and buyers, entrepreneurs can share their facilities, such as office spaces and machines, and profit from a varied supply of knowledge and expertise. The cross-fertilization, which results from that diversity, works as a magnet for companies that are looking for a new place to establish themselves. Additionally, the mix of old and new buildings in the neighborhood gives every type of entrepreneur a chance. In this way, it is possible that a modern stockbroker's office and a traditional furniture maker are neighbors. According to Jacobs' motto, "new ideas often need old buildings" so a city neighborhood can grow into a true breeding ground of entrepreneurship, creativity and innovation.

Oscar Newman and Defensible Space

Of all the proponents of CPTED Oscar Newman has been the most visible. Oscar Newman an architect introduced the concept of defensible space in 1972. According to Newman defensible space describes a residential environment whose physical characteristics – building layouts and site plan – function to allow inhabitants themselves to become the key agents in ensuring their own security. However a housing development is "defensible" only when residents choose to adopt this intended role – a choice that is facilitated by the development's design. Defensible space is therefore a socio physical space. (Newman, 1976, pp 5)

There are four basic concepts in defensible space. Natural Surveillance: This refers to the use of architecture to create spaces that are easily viewed by residents, neighbors and bystanders. There have to be "eyes on the street" to deter crime. Natural surveillance is achieved through three principal mechanisms – diversity of use where each area has more than one primary use; building designs to provide eyes on the streets; and good lighting, which creates a feeling of safety and deters crime.

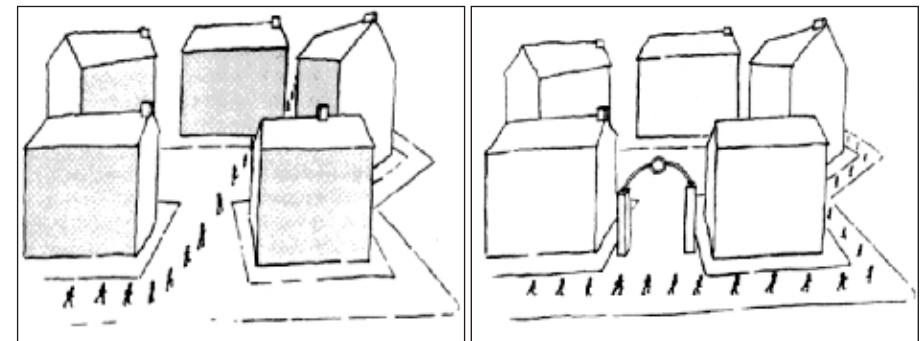
Figure 1 : Natural Surveillance zone being created by use of thick shrubs



Source: Katyal (2002)

Territoriality: A second crime prevention technique is to construct landscapes and buildings that create and reflect a sense of territoriality. Territoriality connotes ownership or stewardship of an area. It both provides an incentive for residents to take care of and to monitor an area and subtly deters offenders by warning them that they are about to enter a private space.

Figure 2: Demarcating territory



Source: Katyal (2002)

Building Community: This uses structures to build communities instead of dividing them. Cities create a sense of 'anomie', which the design has to break by building spaces that facilitate unplanned social interaction. These spaces can be strategically located by placing them around waiting areas such as elevator lobbies, playgrounds from small tots, position entrances on hallways or streets so that they face each other.

Strengthening Targets: The last but not the least by using hardware like steel strengthened doors, deadbolts on doors etc.

Newman's suggestions to application of defensible space to different types of housing are given below:

Single Family Houses

Single-family homes, row houses, and duplexes are most defensible, by definition, because building entrances and outside spaces are used and controlled by only one household; that is, they are "private." To capitalize on the inherent advantages of these housing types, designers should:

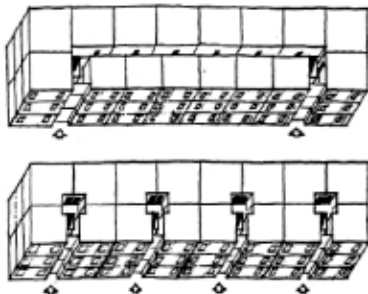
- Avoid setting the front of the building too far back from the street, to keep the building observable to neighbors.
- Provide fences or other barriers to demarcate and prevent easy access to and through back yards.
- Provide good outside lighting around entrances and avoid visual barriers that create hiding places easily accessible from public streets.

High-Rise Buildings

Two- to four-story apartment buildings are more of a challenge because more than one household must use entrances, interior circulation areas, and some outside spaces; are "public."

- A priority for designers of public apartment buildings is to minimize the number of apartments served by each entrance. In the 48-unit building at the top of figure, the common stairs and corridors are accessible to 48 families, and the long corridors are tempting to intruders—offering escape routes and a fairly low probability that anyone will report them if they are observed. The building at the bottom of figure has the same number of apartments, but there are only 12 units per entrance (4 per landing) and escape is not as easy.

Figure 3: A 48-unit building (top) with common stairs and long corridors that are tempting to intruders, and the same building (bottom) made safer by allowing access to only 12 units per entrance.

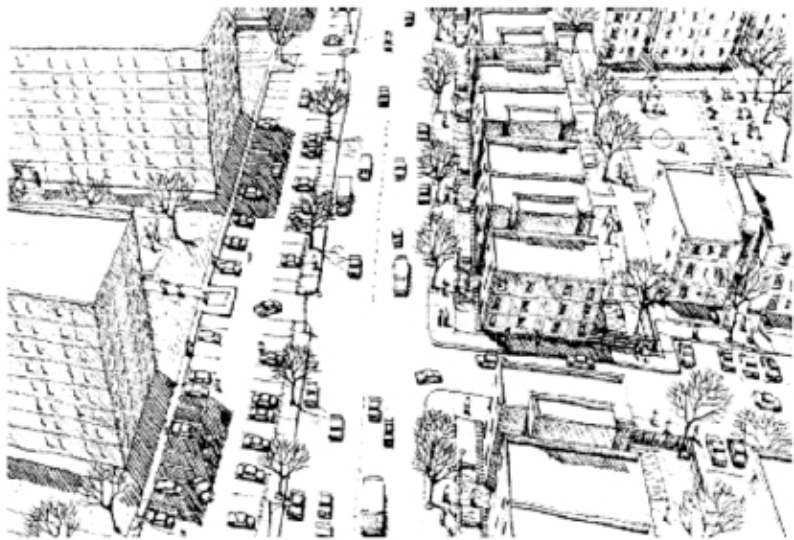


- Also important in these cases is that outside spaces be divided up and allocated to individual families insofar as possible. Where this cannot be done, it may be possible to define areas for use by a limited number of families—for example, by providing a clearly marked play area for children immediately adjacent to (and observable from the windows of) a small number of apartments.
- High-rise apartments with large outside open spaces are hardest to make defensible. Elevator economics encourages one central interior public space serving a great many units. Moreover, a high-rise project typically has a large outside "no man's land"—a public space where intruders can mingle without notice and find easy avenues of escape. High-rise projects can be made more defensible, but the means (guards and reception desks) are usually unaffordable even for moderate-income families, let alone the poor.

Newman shows two housing projects located across the street from one another: a garden apartment complex on the right and a high-rise on the left. Both projects are designed at the same density and with similar parking provisions (40 units to the acre and 1 parking space per unit). The high-rise project has all building entries facing the interior grounds of the development. Parking has been designed as a continuous strip along the street, further disassociating the buildings from the street. The project on the right is only three stories in height and has all the buildings and their entries juxtaposed with the city streets or the interior streets and parking. Each entry faces the street and serves only 6 families, whereas the high-rises have 60 families sharing a common entry. Small play and sitting areas have been provided near the entry to each walkup. This serves to extend into the street the sphere of influence of each of the six families. The residents in the walkup are a very short distance from the surrounding streets, and because of the positioning of the building entries, play areas, and parking, the neighboring streets are brought within the sphere of influence of inhabitants. Another important lesson to learn from this comparison is that 2 radically different building configurations can be produced at the same density: in this case a density of 40 units to the acre with 1-to-1 parking. This is a very high density that will satisfy the economic demands of high land costs. The walkup development achieves the same density as the high-rise by covering more of the grounds (37 percent ground coverage versus 24 percent). Municipalities that wish to reap the benefits of walkup versus high-rise buildings must learn to be flexible with their floor-area-ratio requirements

to assure that they are not depriving residents of a better housing option in order to get more open ground space that has little purpose.

Newman's sketch of alternative ways to develop a four-block area. The project on the left is turned in on itself, away from the public street.



Source Cisneros (1996)

Applications of Defensible Space

Oscar Newman (1996) successfully applied these techniques in different settings.

- Mini- neighborhoods in Five Oaks in Dayton, Ohio suffered from the problem of drug dealers and prostitutes. This was a neighborhood with a mix of housing types and, was broken into ten small neighborhoods by using gates to close some streets to bring people together and decrease the access and entry of un- social elements.
- Clason Point in South Bronx, New York was a 400 unit public housing project of row houses. It suffered from vacant houses, inter occupant fights, muggings etc. By defining the areas Newman was able to bring the residents to be responsible for their areas and thus the whole character of the area changed.
- The third was constructing dispersed scattered site public housing in Yonkers New York, using the principles of defensible space.

There are other applications of this concept some by Oscar Newman and some by other cities. Successful applications have in Miami Shores in southern Florida, a drug-infested area of Bridgeport, Connecticut, and a neighborhood in North Philadelphia.(Cisneros, 1996). However if defensible Space techniques are not properly implemented there can be failures also. Potomac Gardens, in Washington, D.C., tried a less ambitious approach. Managers simply installed 8- foot perimeter fences around the buildings in conjunction with a focused initiative to evict known drug dealers. The number of drug-related arrests in the complex plunged from 150 in 1991 (the year before the defensible space improvements) to only 7 in 1992 (Kovaleski, 1994). But in the case of Potomac Gardens, the results may be less impressive than they seem. Crime rates in the nearby Hopkins Project increased markedly after the fences went in at Potomac Gardens. A good case has been made that much of the drug trade from Potomac Gardens simply moved over to Hopkins.

Another danger is that the criminal element may not leave. A perimeter fence around a project could actually make matters worse for residents when drug dealers and gangs control the internal turf, because the fence only consolidates that control. Atlas (1991, p. 65) extends the debate with his concept of "offensible space". This is defined as "the use of defensible space and environmental design strategies for enhancing security for the criminal element and obstructing justice". He notes that it is not just town planners and designers, or indeed police architectural officers, who have successfully used the principles of "defensible space". Drug dealers and criminals may possess an intuitive understanding of the concepts of territoriality, surveillance and control of access to create "safe" or "offensible" space within which they may carry out criminal activities.

Oscar Newman has always emphasized, fences should break up and allocate spaces internally, not wall off a development from its surrounding environment. (Cisneros, 1996) The latter can sometimes help, but only in the right circumstances. We must recognize that defensible space applications are not all winners. Success is likely only when techniques are mixed to fit the circumstances of the project at hand.

Implementation of concept of Defensible Space

As Newman's work has been the most visible and his concepts form the foundation of most of the CPTED attempts, this paper focuses largely on application of his guidelines. With correct application, the defensible space approach is a potentially powerful addition to the kit of tools for improving

the living environment of public housing residents. The approach maybe criticized as promoting gated communities. It does not exclude people it only tries to bring together people in a community together. It is a relatively low cost option, wherein if applied with prudence, it will help to improve housing conditions and community stability, the many current vacancies in the area will help fill the city's need for more affordable housing in a safe and decent living environment. Cheap wire-mesh fences create a "fortress" impression, connoting a community that considers itself under siege. Open ironwork fences with attractive landscaping signal a stable and pleasant place to live. The difference in cost between the two alternatives is modest in relation to the potential benefits. The all-important lesson to be learned from designs for defensible space is how vital perceptions are—not only to criminals but also to residents. The way we feel about the place where we live governs our motivation to take care of it or to neglect it.

Environmental designs can constraint crime (Katyal, 2000) in four ways:

- Create Legal sanctions bys
 1. Help police catch criminals. Bridgeport in Connecticut constructed concrete barriers near the highway which slowed traffic and consequently deterred criminals as they saw a quick getaway difficult.
 2. Help police to intervene in an evolving incident. Police are more comfortable to go into areas with strong natural surveillance and believe that residents are more likely to help them there.
 3. The presence of bystanders in areas of good natural surveillance can help increase the trust between bystanders and police and help get additional information about incidents.
 4. Design with lots of good lightening and which encourages people to visit a place
 5. It helps Police to deploy more persons where crime is likely to foster. Example in Hartford Connecticut the police mapped areas with higher propensity to crime for distribution of personnel.
- Create Social Norms to push crime out. Designs empower ordinary residents through techniques such as natural surveillance and territoriality and social cohesion to be intolerant to crime. When people can see and they are a part of a community, they try to maintain its sanctity thus they throw crime out of the area before it comes in.

- Affects Individual Attitude not so much consciously as subliminally. It can create spaces for interaction, use features to define territorial units etc which make an individual care for the area.
- Increase the cost of crime for perpetrators by increasing the risk in terms of time spent in a criminal activity, and chances of identification.

Government's Role: The Government's role in this can be divided into three parts as builder, as regulator and as enforcer (Katyal, 2000). These roles are detailed below:

Government as Builder

1. Just as Federal regulations require public housing to conform to building codes, national fire prevention standards, and the mandates that projects "promote security" and "harmonize with the neighborhoods they occupy." Governments can strengthen these regulations by incorporating an explicit crime prevention focus. This is very easily possible for new housing as its subsequent costs will be less as compared to designs which promote crime. Recent trends away from high – rises to three to six stories should be encouraged. By promoting crime control mechanisms in their own construction and planning, they can thereby teach other architects and private landowners the techniques of applying them.
2. For already constructed housing projects Government should encourage retrofitting – whereby the techniques of defensible space like creating the feeling of territoriality by designating public area as small lawns to families, better lighting to help surveillance etc.
3. High-rise buildings which have single entrances to a large number of persons and which are not possible to redesign and have major problems should be razed to the ground and in their place two to three storey walk ways should be constructed. The residents should in the meantime be eligible for Section 8 vouchers.
4. To create better natural surveillance in public places they should provide better lighting to deter crime substantially. Covert sidewalks into areas of activity and surveillance by putting benches, planting small trees with seating areas, making small play areas.
5. Harden target in public spaces by placing bus stops and other transit facilities where it is not possible to escape fast after committing a crime. Also convert streets with high crime into 'cul-de-sac' or close ended

streets. Increase foot traffic by slowing traffic, creating one way traffic etc.

6. A park that is rarely used is a street without a neighbor and a house of festering crime therefore Park designs should be thin, that allow observation at every point. They should have visible well marked entrances and exists and effective lighting, the absence of hidden spaces and high maintenance levels.
7. Provide incentives to private developers in the form of tax incentives and procurement strategies if they go in for crime prevention methods through their designs in new neighborhoods. One example has been the Florida Safe Neighborhood Program, which was instituted out of the recognition that many of the causes of crime could be eliminated through better design and provides for direct spending on architectural solutions to crime. Property owners' associations, community redevelopment organizations and local governments receive grants to collect and provide information about natural surveillance.

Government as Regulator

1. Reframe model building laws to incorporate crime control features. This could require developers to submit a "crime impact statement" like an "environmental Impact Statement".
2. Zoning should be adopted and should strive for diversity of use as advocated by Jane Jacobs. Also there should be enough diversity in housing stock of a zone to encourage people to live in it for long periods so that a feeling of their community is built.
3. Areas identified with high crime should be given special effort to build the confidence of the people there. Land uses that are known to decrease crime should be strategically located like a religious building.
4. Strengthen tort liability for poor architectural design /plan and turn to insurance companies to act as educators in this field. This has been successful in the case of fire safety laws. A leading case of tort liability has been Kline vs 1500 Massachusetts Avenue Apartments Corp., in which the D.C. Circuit held that a landlord is 'obligated to protect those parts of his premises which are not usually subject to periodic patrol and inspection by the municipal police." A tenant had been assaulted and robbed, and placing liability on the landlord would create the proper incentives to use better security precautions.

5. Law enforcement agencies could use criminal regulation of designs through forfeiture and other methods, to eliminate recidivist locations.

Government as Enforcer

1. There should be regulation of places of crime. Owners of decaying and abandoned buildings which are known as breeding grounds for crimes should be forced to forfeit them. Oakland launched a program that focused on places rather than on individual offenders. Owners of properties which were identified as helping crime were forced to clean and maintain them. This had a great effect on the crime rates.
2. Owners who are aware that criminal activities are being carried out in their buildings should be sanctioned against.

Along with the above mentioned implementation methods governments should encourage community policing of the areas, should force the forfeiture of a property by a landlord if it is a source of nuisance, mainly drug dealing, and use crime resistant architectural devices like paints which resist graffiti, public utilities which are vandal proof.

Department of Housing and Urban Department (HUD)

A review of the literature available on the website of HUD shows that there is not much emphasis on crime prevention. Though there were some efforts at defensible space applications in the 1980s and early 1990's the momentum was lost once Henry Cisneros Secretary demitted charge. In his essay on Defensible Space he mentioned two programs Em powerment Zone and the Community Partnership against Crime (COMPAC). These two programs now seem to be inactive. The only programs related to crime seems to be a partnership with the police to map crime prone areas using the Geographical Information System (GIS). The defensible housing program can still be picked up and made a part of the Urban Revitalization Demonstration (URD) program or HOPE IV which aims to eradicate severely distressed public housing.

Since 1993, this program has been an important part of the transformation of public housing by encouraging public housing agencies (PHAs) to seek new partnerships with private entities to create mixed-finance and mixed-income affordable housing. In 2003, the HOPE VI program was expanded to assist local governments in the production of affordable housing in Main Street rejuvenation projects. The activities permitted under HOPE VI include, but are not limited to: the capital costs of demolition, major reconstruction, rehabilitation, and other physical improvements; the

provision of replacement housing; management improvements; planning and technical assistance; and the provision of supportive services.

Conclusion

It is possible to revitalize crime ridden public housing developments with the use of the CPTED techniques. However it needs a concerted effort at the part of planners along with all other support agencies working in the neighborhoods to plan and maintain safe and secure neighborhoods.

A major question, which has to be resolved, is who is going to be responsible for implementation of any crime prevention programs, the residents, the Public Housing Authorities or the Department of Housing and Urban Development or the Police Departments. This is going to effect the adoption and implementation of any such program.

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Annexure

Tables given below have been extracted from Paul Cozens, David Hillier and Gwyn Prescott Crime and the design of residential property - exploring the theoretical Background Part 1 University of Glamorgan, Pontypridd, Wales Key studies on CPTED in 1970's

Author (date)	Focus of study	Location	Main conclusions
Kohn <i>et al.</i> (1975)	Alterations to two-row housing projects (Markham and Clason Point)	New York	Generally beneficial Fear of crime reduced
Hunter (1978)	Improvements to four walk-up blocks of flats, gardens created on ground floor	Liverpool	Depressing results Generally unsuccessful
Gillis (1974)	Multiple occupation and delinquency	Edmonton and Toronto	Deprived families dominated buildings
Pabiant and Baxter (1975)	Rates of forcible entry into 32 schools	Houston	Street lighting and visibility to nearby (1975) residents has improved Break-ins less likely in "attractive" schools
Repetto (1974)	Residential burglary rates	Boston	No clear correlation between physical layout and residential crime rate
Waller and Okihiro (1978)	Victimisation of burglary in terms of defensible space	Toronto	No support for Newman's theory
Mawby (1977a)	Levels of vandalism of telephone kiosks	Sheffield	Offender rate of area more important than design
Mawby (1977b)	Burglary in four council estates – compared two high-rise and two conventional housing types	Sheffield	High-rise no more at risk than conventional housing. Reporting of crime higher. Offender rates improved Housebreaking less likely in high-rise
Mayhew <i>et al.</i> (1979)	Defensibility and vandalism of telephone kiosks	London	Tenure of nearby housing more important. Child density implicated
Wilson (1978)	Vandalism in 258 blocks on 38 council estates	London	No direct relationship between design and vandalism. Child density crucial. Impact of design visible at lower densities
DOE (1977)	18 council estates	Lambeth	Design relevant but child density/social make-up of residents and caretaking/maintenance important

Source: From Mayhew (1979), pp. 153-55.

Key studies on CPTED in 1980's

Author (date)	Focus of study	Location	Main conclusions
Merry (1981)	Social factors in CPTED "undefended" "defensible space"	An East-coast port city (not named)	Social factors more important. Enthusiasm for CPTED should be moderated
Booth (1981)	Accessibility and opportunities to observe public spaces	Nebraska	May reduce crime inside public apartments Otherwise rejected as a "sterile" concept in public space outside
Newman and Franck (1980)	Crime in housing developments	San Francisco, Newark and St Louis	Strong support for Newman's ideas
Newman and Franck (1982)	Effects of buildings size of crime and fear of crime	San Francisco, Newark and St Louis	Effect of building size not as important as expected. Social factors implicated
Greenburg <i>et al.</i> (1982)	Comparison of physical attributes and territoriality in high and low crime areas	Atlanta (Georgia)	Territoriality not a distinguishing factor in low crime areas
Brown and Altman (1983)	Surveillance and territorial displays in burglarised and non-burglarised houses	Utah	Strong support for both surveillance and displays of territoriality in non-burglarised houses
Brower <i>et al.</i> (1983)	Resident perceptions of territorial features and perceived local threat	Baltimore City (USA)	Real barriers and territorial displays seen to reflect care. Efficiency depends on context
Benett and Wright (1984)	Territoriality as perceived by burglars	UK	Territorial displays not perceived as important by burglars. Surveillance was important
Coleman (1985)	Design improvement controlled experiment (DICE)	London	Inconclusive – child density important
Nee and Taylor (1988)	Perceptions of burglars regarding target hardening techniques	Ireland	Target hardening viewed as being ineffective
Normoyle and Foley (1988)	Defensible space and fear of crime in elderly public housing residents	USA (nationwide)	Fear was lower among high-rise dwellers Integrated old/young occupancy mix did not raise anxiety
MacDonald and Gifford (1989)	Deterrent effects of surveillance and territorial displays upon convicted burglars	Victoria, Canada	Surveillance supported territoriality had no effect

Key studies on CPTED in 1990's

Author (date)	Focus of study	Location	Main conclusions
White (1990)	Neighbourhood permeability and burglary	Virginia	Major arteries can attract burglars
Perkins <i>et al.</i> (1990)	Social and physical environment and participation	USA	Criminals and residents perceive defensible space differently
Perkins <i>et al.</i> (1992)	Street blocks, perceptions of crime and disorder	Baltimore city (USA)	Disorder related cues increase fear of crime. Some support for defensible space
Nasar and Fisher (1993)	Crime and fear "hot spots"	Ohio (USA)	Low prospect, high concealment and boundedness increases fear. Some support for defensible space
Nasar <i>et al.</i> (1993)	Physical cues to fear of crime	Ohio (USA)	Trees, shrubs and walls provide concealment, blocked prospect and escape. Some support
Brantingham and Brantingham (1993)	Nodes, paths and edges and crime	Canada	Crime strongly related to aggregate elements of environment
Perkins <i>et al.</i> (1993)	Crime, defensible space, territoriality and incivilities	New York (USA)	Defensible space and demographics important. Signs of territoriality and disorder, less so
Nasar (1994)	Building exteriors and affective responses	USA	Image and meanings attached to housing types varied
Tsokounoglou (1995)	Spatial vulnerability to crime	London	Defensible space does not enhance safety significantly
Harris and Brown (1996)	Home and identity displays and territoriality	USA	Homes can reveal territoriality. Defensible space supported
Perkins and Taylor (1996)	Community disorder and fear of crime	USA	Physical and social incivilities increase fear of crime
Ross and Mirowsky (1999)	Perceived disorder and decay	Illinois (USA)	Social and physical indicators can overlap and increase or reduce feelings of safety
Ham-Rowbottom <i>et al.</i> (1999)	Perception of defensible space concepts	UK	Cues not universally perceived by police/resident or burglars
Brown (1999)	Secured by design	Gwent, Wales, UK	Support for SBD and defensible space. Crime lower on SBD
Armitage (1999)	Secured by design housing estates	West Yorkshire, UK	Support for SBD and defensible space. 40 per cent fall in burglary. Some day-night displacement
Pascoe (1999)	Secured by design	UK	Support for SBD and defensible space

Endnotes

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Percentage of Residents Reporting Concerns About Crime and Disorder, by Size of PHA and Building Type

	Large PHAs (1,250–3,999 units)			
	Highrises	Lowrises	Townhouses	Scattered-Site
Major problems with crime:				
feel unsafe	14	29	27	18
fear of crime	27	37	29	17
home victimization*	0	6	11	15
gunshots	16	37	29	15
drug dealers	21	43	26	22
Major problems with disorder:				
broken lights	14	25	15	14
not enough streetlights	22	22	32	27
broken/removed doors	6	13	0	8
trashy yards	21	39	38	33
graffiti	7	16	14	10
damaged elevators	6	4	1	2

	Largest PHAs (4,000–49,999 units)			
	Highrises	Lowrises	Townhouses	Scattered-Site
Major problems with crime:				
feel unsafe	33	30	36	25
fear of crime	36	38	37	26
home victimization*	7	9	14	12
gunshots	40	39	49	27
drug dealers	35	40	47	24
Major problems with disorder:				
broken lights	29	24	31	16
not enough streetlights	36	31	36	25
broken/removed doors	22	24	17	17
trashy yards	28	48	52	28
graffiti	23	32	27	19
damaged elevators	35	0	5	3

*Percentage of residents who have been the victim of a burglary or a household larceny during the previous 6 months.

Percentage of Residents Reporting on Fear, Crime, and Disorder, by Size of PHA and Size of Development

	Large PHAs (1,250–3,999 units)			
	Development Size			
	2–50	51–100	101–500	501+
Feeling unsafe	21	33	27	50
Fear of crime	29	33	32	28
Major problems with crime:				
gunshots	21	35	33	52
burglary	21	16	20	28
robbery	17	22	18	21
assault	11	32	22	35
drug dealers	37	35	32	35
Major problems with disorder:				
broken lights	13	28	15	39
not enough lights	34	30	24	51
broken doors	8	0	8	8
trashy yards	39	39	40	51
graffiti	21	11	14	14

	Largest PHAs (4,000–49,999 units)			
	Development Size			
	2–50	51–100	101–500	501+
Feeling unsafe	32	15	39	48
Fear of crime	32	15	35	57
Major problems with crime:				
gunshots	39	28	42	65
burglary	21	17	23	25
robbery	26	15	23	33
assault	28	23	28	30
drug dealers	41	32	44	53
Major problems with disorder:				
broken lights	21	17	29	42
not enough lights	32	27	34	46
broken doors	16	8	21	30
trashy yards	29	39	58	53
graffiti	26	14	28	35

The consequences listed here have been taken after reading various books and articles including

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REPUBLIC OF KOREA: A Never Ending Miracle

Prem Kumar Gera*

With per capita income less of than \$100 p.a., the Republic of Korea's (ROK)/ South Korea's stage of development was no different from that of India in 1960s. Till 1970s, it was poorer than Malaysia and Mexico. However during the last four decades it's per capita GDP has zoomed by 10 times. At present it is more than \$20000 and is recognised as a developed country. Its GDP growth was 0.2% in 2009 when much of the rest of the world was contracting at an estimated rate of 6%. The ROK was seriously affected by East Asian economic currency crisis in 1997, however it was the first to come out of it.

Over the last decade ROK has reinvented itself. It is a never ending Asian miracle. People of ROK are known for their innovations. They just not make goods but design and develop the products. They brand their products and market with style. Samsung and LG products are dominating whole range of home electronic items in the world like Samsung cameras, LCD TV, refrigerators, washing machines etc. In 4G technology, Samsung may soon be a leading force. Hyundai Motors is now among the top auto/ car manufacturers. All this has been possible due to their focus on innovation and quality that leads to giving value for money to their customers. One must remember that till few years back, ROK used to be synonyms with producer of cheap imitative products. However, now we look at products from ROK as innovative brands.

Their spending on R&D has been 3.5% of their GDP, when compared with 1.5% in China and less than 1% in Malaysia and India. This makes them innovators par excellence. Their citizens work very hard. Average Korean works for more than 40 hours a week. Its percentage of population using internet is perhaps the highest in the world. The State is well known for its e-governance applications used for delivery of services to its citizens. The ROK model of development which not just export led growth, but with a complete

focus on welfare of its citizens, has found world wide acceptability. There is no reason, why this can not be replicated in other southern Asian countries if they focus on creativity and quality which can not be just unique to South Koreans.

Besides being just creative and hard working, the society there has undergone a metamorphic change. It has reinvented by becoming more open in accepting ideas from the West without changing their religious and cultural ethos, though majority of South Koreans have stated to be not following any religion. They have not just accepted focus on quality and hard work but have also quit old prejudices. This has brought about fundamental reforms in the South Korean society. Perhaps this has been an on going process. South Koreans have been bringing down various societal barriers that held them back from integrating with the world. This got initiated with gaining political freedom which did not come easy. The assassination of President Park Chunghee in 1979 and the protests that followed led the Koreans to bring about significant changes in their polity in 1987. ROK is now following the model comparable with any liberal western democracy.

South Koreans have evolved from a closed door hermit kingdom to an open society prepared to accept new ideas as available from the West. Politically ROK is trying to become very influential in its own right. Last year it hosted the G20 Summit, first Asian country to do so. So by all this, it looks that the ROK has the capacity to become a global leader along with Japan and China.

Embracing globalisation passionately has been the basis of ROK's miracle. From a humble beginning in 1960s, when the destitute Korea capitalised on its cheap labour to produce and export low tech products like toys, shoes and steel etc, it soon shifted into manufacturing products having high technology inputs like ships, microchip and other advanced products. Companies of ROK had been shielded from competition and heavily supported by tight links to the government and banks, allowing them to borrow and invest willy-nilly while building up frightening debt burdens. For quite some time the South Koreans enjoyed the fruits of their hard work and shielded their banks and companies which raised astronomical debt burden till they realised that globalisation was a two way phenomenon and the 1997 crisis was to make them wiser, by noticing some obvious flaws in their ways of supporting their businesses.

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Initially ROK's economy remained closed and was not effected by globalisation. They did not receive foreign investment and were not attracted by the foreign tourists. They shielded their companies from competition and allowed them to become Chaebols¹ or business giants in their own manner. Their self-delusion evaporated during the Asian financial crisis of the late 1990s. As its most prominent companies collapsed into bankruptcy and the government had to take recourse to a humiliating \$58 billion International Monetary Fund bailout. The country reinvented its entire economic system and ways to do business. Again they used the crisis as a catalyst for change, by realising that the old ways would not work. They used the 'Crisis' as an opportunity to innovate and bring structural changes in their economy. This continuous process gave boost to their income further and their quality of life kept pace improved as the government continuously invested in human capital as it had realised that skilled manpower was their biggest resource in becoming a global leader.

In 1999, George Soros purchased control of a brokerage then called Seoul Securities and plucked Korean-American Kang from Wall Street and inserted him as CEO. Kang created an instant stir. CEOs in Korea were expected to work their way up the seniority-based corporate ladder, and the incumbent managers at Seoul Securities were outraged that a 37-year-old outsider was now their boss. Local media got wind of his Wall Street level compensation, and he got dubbed "the \$3 million man." Kang became a symbol of evil foreigners taking advantage of Korea's moment of weakness.

Kang had entered a securities industry that didn't operate by international standards. Poorly trained brokers would flog stocks to old ladies based on rumour and press clippings. Kang got to work applying what he had learned on Wall Street, cleaning up the firm's risk management and expanding and strengthening new businesses like institutional sales and investment banking. As profits rose at Seoul Securities, other brokerages copied Kang's imported

¹Chaebols refers to a South Korean form of business conglomerate. They are powerful global multinationals owning numerous international enterprises. The Korean word means "business family" or "monopoly"

ideas. The industry has changed so much, Kang says today, that if he arrived now as CEO he wouldn't create nearly the same commotion. Koreans "are much more open, have much more global experience," says Kang. "That's the real drama. You can talk about government policies, but [the difference] is the people."²

ROK's Government opened up its markets by breaking apart the cosy government-banking-corporate networks, forcing the big companies to become truly profitable, independent and internationally competitive for the first time. This process attracted new influx of foreign money and ideas and new concepts of corporate management followed world wide. The foreign investment found attraction in ROK's economy that increased competition. Many existing companies in various sectors including banks, autos and other industries were sold to international giants at throw away prices.

Apple's recent success of launch of iPhone forced Samsung to accelerate development of its own product. All such measures increased the number of foreign residents in Korea from 250,000 in 2000 to more than 870,000 in 2009. Post financial crises ROK's giant companies learnt to face competition that came from the giant MNCs which compelled them to become innovative as they realised that only through new initiatives can they match the competition. In the era of globalisation South Korean companies like Hyundai Motors started engaging global staff from all the countries where their operations grew. Its offer to take back Hyundais from buyers who lost their jobs during the worst of the Great Recession in early 2009 in the U.S., was devised entirely by Hyundai's U.S. managers. Indeed it helped the company outperform its rivals during the downturn. Hyundai has integrated foreign experts into its Seoul management team. As a result, at the Hyundai's headquarters cafeteria offers salads, steaks and other Western dishes at lunchtime, which was unheard of in 1990s.

This attitude has been reflected in social norms as well. The possibility of having lady managers at higher levels was a remote possibility. Senior lady managers in big corporations were practically nonexistent. Most women were relegated to minor tasks and were expected to quit after they got

²Michael Schuman, 'Asia's Latest Miracle' Time Nov 15, 2010

married. For those bold enough to stay on, the corporate culture made it almost impossible for them to get ahead. With winds of economic freedom blowing across the country, the removal of gender barrier in career growth got a boost. Younger women armed with degrees from the western world stormed the bastion of male managers to show just how valuable women could be to the South Korean companies. To endear office mates, they would often join them in after-work power-drinking sessions, which none of their male counterparts would have even dreamed of. As the global market becomes fierce, the focus has been on maintaining talent rather than the old discrimination. Now in the ROK, companies are placing merit over gender when selecting its executives at all levels.

Many young South Koreans are becoming entrepreneurs just after graduating from their colleges. They are starting their own companies, often in innovative IT or high-tech businesses. Such a proposition was beyond any parent's imagination as they would have liked their children to join the government or a big company like Samsung or Hyundai after obtaining degrees from a prestigious university in Korea or abroad. All this is due to various factors including a longing for more freedom among South Korea's youth and the availability of venture capital in the market and replicating stories of entrepreneurship and free enterprise observed world wide. All this has been intimately linked to Korea's political changes. The country was largely ruled by dictators for 26 years, until massive street protests forced free elections in 1987, and even after that, the government still intervened heavily in the economy. But ROK has become a much more democratic society over the past decade, driven by Presidents Kim Dae Jung and Roh Moo Hyun, the first leaders to come from an opposition party, and the market-oriented economic reform made necessary by the 1997 financial crisis³.

The economy of a country is very reflective of the politics of the country. When the government was big and had a strict system of control, it was difficult to succeed without the support of the state, so parents pushed their children to reach for stability, by working for Government or in a company like the Samsung. But now the government is smaller and intervenes less. People feel they can become successful, whichever company they work for. South Korean society has many stories to support the above conclusions. The society has become audacious to counter China's economic growth model

based on its economic view of State Capitalism without civil liberties. ROK's counterpoint of superior free enterprise based on constitutional rights is closer for India to examine but this doesn't mean their system is perfect. Despite its progress, the society still remains too wary of foreign influence and too biased against women in the workforce. Businessmen complain that too much red tape clogs their way. The outdated education system is so rigid that parents flee the country in droves to put their kids into high schools in the U.S. and elsewhere. South Korea has 75,000 students enrolled at U.S. universities third highest, after India and China. The Korean economy is still not a fair place where everyone is governed by the same rules. There remains relentless threat from North Korea that hovers on every one in Korea. But ROK's capacity to overcome all threats as opportunity makes it a nation that is always innovating and evolving for new attaining new heights. It is a country to watch and emulate in many aspects.

³Op cit

LEARNING EMPLOYABILITY IN SCHOOLS: Hidden Potential

Chandra Bhushan Kumar *

Abstract

Conventionally, students prefer opting for arts, commerce or science stream in senior secondary classes after their class X. There are few takers for vocational stream. It leaves a large number of class X passed out students without learning any employable skill after they finish schooling. Recently launched Modular Employable Skill (MES) courses by the Central government have enough flexibility to introduce it in senior secondary classes for the presently deprived students. Successful initiation of MES courses in Delhi government schools offers great opportunities for other senior secondary schools in India which has set a goal of 500 million skilled workforce by 2022.

Introduction

India intends to have 500 million skilled workforces by 2022¹. The Government has designed a strategy to expand and upgrade the existing technical institutional system of Industrial Training Institutes (ITI) and Polytechnics in the country to make this happen. A new scheme with the name of 'Modular Employable Skill' (MES) courses², designed in consultation with the industries, has been put in operation since 2007. In senior secondary³ schools, two years vocational stream, running concurrently with Arts, Science and Commerce streams is in operation to impart employable skills amongst current students.

While ITIs and Polytechnics target post-school students; MES chiefly targets out-of school students, whereas vocational stream targets current students. However, as the country is moving towards universal secondary education, students attending senior secondary classes need more options and attention in realizing the stated intention in next 12 years.

Demographically, India is becoming a nation of young people. Its literacy figures seem promising. School education has become a fundamental right for the children in 6-14 years age group since 2009. Simultaneously, a new scheme- the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for improving the gross enrolment ratio in secondary classes IX and X in the country has also been initiated. These measures, combined with increased awareness, are bound to improve the situation of enrolment in senior secondary (XI and XII) also, which is the last stage of state controlled schooling.. Mostly in the age group of 16-18 years, these students are also the future workforce for the country. Targeting them will help in creating an informed, educated and aware workforce, who will then be capable and adaptable to the changing market environment.

The popularity of skill oriented curriculum (such as vocational stream) at the school level has been limited as students prefer other three regular and conventional streams: science, arts and commerce. A study of Delhi government schools indicates this preferential bias against the vocational stream owing to various factors. This results in 90% of senior secondary students remaining outside the ambit of employable skill initiative at the time of finishing schooling in Delhi (Part 2 elaborates it). This can be overcome by some innovative thinking and horizontal integration with the current scheme of MES. Delhi government schools experimented with this idea in 2009 successfully. It offers hope for students in other senior secondary schools in the country.

This paper would like to emphasize the need for introduction of employable skill courses during senior secondary years for all students, irrespective of streams. If India wants to achieve its target of 500 million workforce by 2022, these students seem better placed to make it happen. Another important factor will be increased participation of girls in the future workforce. Taking a case study of Delhi, which linked MES with senior secondary schools in 2009, this paper will analyse the strategy, its results, the risks and the possible pathways for future.

This paper has been organized in following parts: part 1 describes the current skill development initiatives in India, their applicability for schools and the rationale for skill training in schools; part 2 describes the existing senior school education system in Delhi and the status of vocational stream; part 3

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¹ Available at http://planningcommission.nic.in/reports/genrep/skilldev/rep_skilldev1.pdf. Accessed on 03/09/2010.

² Details are available at <http://dget.nic.in/mes/index.htm>. accessed on 03/09/2010.

³ Senior secondary and higher secondary are treated equivalently. It covers two classes- XI and XII.

elaborates the strategy and the steps for employable skill initiative in Delhi; part 4 critically evaluates the initiative; and part finally 5 suggests possible pathways for future success.

Part 1: Skill learning in India and in Senior Secondary classes

Traditionally, Indian society has witnessed skill development through two key systems. First and foremost is through skill-based caste structure. Skill-based caste structure preserved and promoted the skill specific learning within the specific families (Basham, 1968). Learning remained hereditary. But, with changing time, the rigidity of the structure made this system unattractive and undesirable. Modern education and degeneration of traditional socio-economic structure created a vacuum in the market. This vacuum was fulfilled to a limited extent through another system, the on-site learning. Mostly out-of-school students at tender age used to opt for this system. The cyclical poverty and limited applicability of inflexible school education system encouraged the students to leave the schools⁵ and work in roadside eateries, automobile repair shops, ready made garments sector, as domestic servants etc. Earning was more important than learning. The market lacked standardization and there was no incentive for skill development and up gradation. Most importantly, it promoted child labour⁶.

An assessment suggests that about 12.8 million persons enter the labour market every year in India. The age structure of this workforce is significant. In 2020, the average Indian will be only 29 years old, compared to 37 in China and the US, 45 in West Europe and 48 in Japan (Ministry of Labour & Employment, 2010). This advantageous 'demographic dividend' needs to be tapped for the overall well-being of the society. Accordingly, India has set a target for 500 million skilled workforce by 2022. However, at present, only 5% of the labour force in the age group of 20-24 years has obtained any vocational skill through formal means whereas the percentage in industrialized countries ranges between 60% and 96%⁷.

It is important to understand the journey of the labour force in India. In 2009, schooling for children up to age of 14 years has been made a fundamental right. Schooling starts, in general, at the age of six years. However, drop-out

⁵About 63% of the school students drop out at different stages before reaching Class-X.

⁶Any child who is of less than 14 years in age and works in specified hazardous professions (including domestic servants and roadside eateries) is considered a child labour.

⁷Available at <http://dget.nic.in/mes/index.htm>; accessed on 05/09/2010.

rates have been very high. Only 29% of the total children reach senior secondary schools. Almost 61% are available for the labour market without the completion of secondary education⁸. With this background, Ministry of Labour & Employment formulated a national policy on skill development. It also designed an ambitious scheme, in close co-ordination with the industries, namely the Modular Employable Skill (MES) courses under Skill-Development Initiatives (SDI) for targeting, chiefly, the students who drop out from the schools. As on 17 August 2010, 1169 such courses are available for training. MES brings standardization in skill-learning as per the current market demand; it offers the choice of moving up in the skill ladder through constant up gradation. Since the course duration ranges from sixty hours onwards without any fixed calendar, it offers flexibility. The separation of training and evaluation helps in maintaining quality. Involvement of certified private agencies and institutions in both areas will increase the reach and availability of the courses. And, most importantly, it is fully reimbursable by the Directorate General of Employment & Training (DGET) in case of successful completion.

In absolute numbers, 13.4 million students were found studying in XI-XII classes in 53,619 senior secondary schools in the country as on 30.09.2005⁹. There were four streams in these classes- Arts, Commerce, Science and Vocational. The selection of stream was based on the student's performance in class X examination¹⁰. Invariably, high performers opted for Science and Commerce streams followed by Arts. Vocational courses were the least preferred at the school level. These preferences were mostly dictated by the following reasons:

- (1) Potential of an engineering and medical career after school (for science stream)
- (2) Potential of management/financial/accounting career after school (for commerce stream)
- (3) Family influence
- (4) Peer pressure

⁸ Abstract of Selected Educational Statistics (2005-06), Ministry of Human Resource Development, Government of India.

⁹ Ibid

¹⁰ Class X or Matriculation examination is first major screening at the school level for selection of stream.

- (5) Lack of popularity of vocational stream amongst the school management
- (6) Limited infrastructure for vocational teaching
- (7) Limited capability for vocational training
- (8) Absence of clear cut linkage to post school career options for vocational students.

The case study of Delhi reflects such preferential biases towards Science, Commerce and Arts. However, other than 2.5 million vocational training seats, labour market is not very conducive for majority of students in the country¹¹. Acquisition of employable skill, for these students from other streams, is often considered an option beyond school hours. It is not a substitute for regular schooling, but additionality only. Further learning such skills is costly (unregulated market), risky (quality-wise) and difficult (unavailability, inaccessibility) business.

Part 2: Structure of Senior Secondary School Education in the NCT of Delhi¹²

Delhi, being capital of the country, is at much advantageous position in terms of awareness, and standard of schooling. The school education is available in private as well as government sectors. In 2009-10, 180,358 students from 1,288 senior secondary schools appeared in class XII examination conducted by the Central Board of Secondary Education. 668 of these schools were under Delhi government, 36 under Central government, 157 government aided and 427 were private schools respectively. This paper limits the discussion only to Delhi government schools.

In the last ten years, the performance of Delhi government schools has remarkably improved in class X examination, from 40.2 % in 2000-01 to 90.99% in 2009-10. In absolute terms, now 120,125 students are available for senior secondary schooling in 2010 than the 29,056 in 2001 through Delhi government schools. An analysis of stream-wise trend in class XII suggests that in 2009-10 only 6.18% students opted for vocational streams. In 2005-06, this was mere 3.12 %. More than 93% students preferred conventional Arts, Commerce and Science streams. Employability under these streams depends upon the student's performance in various competitive examinations or

her/his acquisition of skill outside the school hours. Following graph provides an indication of preference for streams in the government schools in Delhi (Fig 1).

Another factor, which is important, is quality. Almost sixty percent of students fail to score more than 60% marks in class X examination as well as in class XII examination¹⁴. This becomes a hindrance in further higher education or professional courses as most of these opportunities prescribe 60% marks as minimum prescribed criteria for applying to good colleges.¹⁵ The status of vocational education system has also not been very encouraging. In 2009-10, 6021 students appeared in class XII examination in Delhi government schools. These students opted from 17 vocational subjects, which were taught in selected schools with the help of part-time vocational teachers. The curriculum of these subjects was more than a decade old with limited linkages to the market. Expansion and upgradation of the current status was difficult, as it would require substantial funding, flexibility and fungibles. Moreover, it would need attitudinal change at the level of parents, teachers and the society to consider vocational stream above and over the three conventional streams.

In these backgrounds, the journey of joining skilled workforce for more than 90,000 students, every year, from Delhi government senior secondary schools seems cumbersome, long and difficult. They are left on their own in the market to acquire a skill suiting to market's interest. This market is unstructured, unregulated and offer little option for standardized learning. This 'Hanuman Kood' (Jump) (Bhave, 1996) from protective school environment to free, but cruel, outside world is an arduous journey for students. In Delhi, where 67% workforce¹⁶ is in unorganized sector (Delhi, 2006), these students (and other similarly situated) find little space and encouragement for acquiring the skills and further upgrading it to adapt to the changing market environment. Those who join the labour force fail to utilize their true potential and hence the productivity suffers greatly.

The analysis of present structure of senior secondary school provides some key points:

- (1) Limited options are available for higher learning after the schools.

¹⁴ Result analysis of the Class X and XII for Delhi Government schools. Available at <http://edudel.nic.in/>.

¹⁵ Like for Indian Institute of Technology examination, 60% marks in class XII is the basic eligibility.

¹⁶ At country level, it is 93% selection of stream.

¹¹ Available at <http://dget.nic.in/mes/index.htm>; accessed on 05/09/2010.

¹² Data in this part are taken from <http://edudel.nic.in/>.

- (2) In schools, few opt for vocational streams.
- (3) The infrastructure for expansion of vocational education is limited.
- (4) The limited availability of vocational teachers.
- (5) Students in other three streams do not get any chance to acquire any employable skill.

State has three options in the present situation

- (1) Making Vocational education attractive, accessible and available: It will require funding, more vocational teachers and an attitudinal change on the part of parents/guardians as well as the school.
- (2) Continue with the status quo: Leaving the students on the whims and fancies of the unregulated and unstructured market and hoping that they will acquire the skills on their own.
- (3) Linking MES courses at the senior secondary level: In the existing MES guidelines, this option is not available. Also, the capacity of the school and the acceptability by the students were not tested.

In Delhi, third option was explored in project mode in the government senior secondary schools. The details of the same have been discussed in the following pages.

Part 3: Strategy and the Steps

In 2008-09, academic session, Directorate of Education in Delhi government discussed, deliberated and initiated the idea of skilled training for its class XII students. However, mainstreaming this idea in the existing school system needed following activities:

- (1) Conceptual clarity about the idea understanding the guidelines, structure, finance, management of the project related to the idea: At that time, MES was only a two-year old government scheme. Use of IT (Information Technology) gave access to all relevant documents (guidelines, structures, contact details, course outlines, registration process, training providers, training locations, training evaluators etc.) that were posted by the central government on its website <http://dget.nic.in/mes/index.htm>. Being located in the same city also helped in accessing the details and seeking clarifications if any for the Directorate. Following key issues emerged:

- (a) There may not be any financial implication for the Directorate as the scheme is fully reimbursed by the Central Government on successful completion.
 - (b) It was possible for the Directorate to implement the scheme on its own using existing resources.
- (2) Identification and analysis of stakeholders: Key stakeholders in the project were political executive, senior functionaries in the secretariat, finance department, Directorate's officials at various levels, school principals, vocational teachers, prospective trainees.
Extensive consultation helped in refining the idea into a project suitable for schools. Overall structure, with following elements, was agreed upon:
 - (a) Target: Students appearing in class XII examination in 2009 will be targeted.
 - (b) Timing: The courses will run during two months of summer vacation when the schools are closed.
 - (c) Fee: No fee will be charged from the students.
- (3) Identifying the team and capacity building: Success of such initiatives depends upon the identification of a spirited team and its capacity. This element is also critical for integrating the effort within the existing institutional framework. Vocational branch of the Directorate was made the nodal agency supported by a select group of enthusiastic officers. In this team, some principals and teachers were also co-opted. Periodic interaction, consultation and deliberations helped in structuring the dissemination and implementation of the plan.
- (4) Interaction with the concerned external environment (in this case, the DGET team, State Vocational Training Directorate): MES courses are centrally co-ordinated by the DGET and at the state level by State Vocational Training Directorate. The idea of involving education Directorate for MES courses was new to both the agencies. However, regular consultations helped in breaking the ice. Both the agencies guided and helped the Education Directorate throughout the process of registration, implementation and monitoring.

- (5) Identifying the courses and the trainers: DGET had prescribed 1161 types of MES courses under 65 sectors¹⁷. Identification of suitable courses depended upon three factors: (a) suitability and attractiveness for Delhi students; (b) capability of the school in terms of infrastructure; and (c) availability of existing and probable trainers for the courses. Since MES courses were hourly courses, the Directorate opted for those courses which could be finished within the summer vacation period without disturbing the normal schooling. It was also important to select only those courses at the beginning, where success, to some extent, seemed feasible. At first instance, thirteen sectors were identified, which were then further narrowed down to six after obtaining the responses of students and the trainers. These were: Automobile Repair, Beauty Culture & Hair Dressing; Fashion Design & Garment Making; Information & Communication Technology; Travel & Tourism; and Retail. Various training sessions were organised for the trainers where they sought and clarified their doubts with the chosen experts¹⁸ in the field.
- (6) Registration with the DGET: At present DGET has six regional centres¹⁹ in the country. Any agency desirous of running MES courses needs prior registration with the regional DGET office in a prescribed application for²⁰. Being government department, no registration fee was needed for the education Directorate and the application along with details of trainers and selected schools (depending upon the infrastructure requirement under selected courses) was submitted. The inspecting team of DGET and State Vocational Training Directorate conducted the inspection and gave its go ahead for running the courses in identified schools with the support of identified trainers.
- (7) Dissemination of information: Simultaneously, awareness campaign was launched through Directorate's website, all senior secondary schools, and Education Minister's press briefings during the months of March, April and May 2009. A leaflet was designed (Annexure-I) and distributed amongst the students, teachers and parents/guardians. Orientation

programmes and Power Point presentations on various skills and its future advantages were organized in all the twelve school districts in Delhi. At least 12,000 students attended these publicity camps.

- (8) Implementation strategy: The implementation of the programme had the following components:
- (a) Selection of District-wise Co-ordinators: Altogether 29 co-ordinators were selected exclusively for MES courses. These co-ordinators maintained the database and kept daily record of course activities. They liaised with the Principals of selected schools (where the courses were run) on training days and acted as a link between the Directorate and the trainers.
 - (b) Registration of students: 4,400 students were finally selected to undertake training in the six sectors. According to the choice of the students, each student was allocated the training location within her/his district. A declaration was also signed by the concerned parent/guardian promising regular attendance in the course. A register was maintained manually as well as electronically to keep regular record of trainee students.
 - (c) Infrastructure for courses: There exists a provision for infrastructure support within the guidelines of MES. However, it is based upon the number of trainees; hence additional resources could come only after the start of the courses. Accordingly, the school was asked to keep the existing infrastructure in order using existing resources. Since no additional infrastructure was needed for running the courses, there was no need for any outside funding.
 - (d) Selection of trainers: For four sectors (Automobile Repair, Beauty Culture & Hair Dressing; Fashion Designing & Garment Making and Information & Communication Technology) trainers were available within the Directorate. The need was to motivate them and to take commitment for the courses. Since no fee was charged from the students and MES prescribes for reimbursement of training cost after successful completion, the Directorate urged them to agree for fee after the receipt of fund from the DGET. The trainers wholeheartedly supported this approach. A roster of trainers was maintained to ensure the availability.

¹⁷ Available at <http://dget.nic.in/mes/index.htm> accessed on 05/09/2010.

¹⁸ These experts were suggested by the State Vocational Training Directorate.

¹⁹ Faridabad, Kanpur, Kolkata, Mumbai, Hyderabad and Chennai (<http://dget.nic.in/mes/index.htm>).

²⁰ Details are available at http://dget.nic.in/mes/VTP_Guidelines_&Forms_July.pdf accessed on 07/09/2010.

- (e) Selection of Outside trainer: DGET maintains a list of private vocational training providers for each region in the country. The concerned training provider for other two sectors (Travel & Tourism and Retail) to organize the training in selected schools. They readily agreed with the commitment of future payments against each successful trainee.
- (f) Selection of Outside evaluator: MES courses are evaluated by third party. This list is also available with the DGET. The DGET also guided the Directorate in selection of outside evaluator, who organized workshops for the trainers and provided model evaluation papers in the concerned sector. They also did mid-term evaluation of the ongoing training.
- (9) Monitoring: The courses were run in project mode with constant monitoring. The monitoring structure was both vertical and horizontal in nature. Since, the courses were conducted during summer vacation; it was much easier to monitor the progress on a daily basis. Online registration of attendance helped in identifying the weak links and in taking corrective measures promptly.
- (10) Timeline: Summer vacation was the time available for actual implementation of the scheme. However, training and awareness were

Table 1: Sector-wise details of students enrolled under MES (2009)

Course	No. of Students	Appeared	Passed	Pass %
<i>Retail trade</i>	32	31	31	100
<i>Automobile Repair</i>	59	53	53	100
<i>Travel & Tourism</i>	334	303	293	97
<i>Fashion designing & Garment making</i>	589	560	553	99
<i>Beauty Culture & Hair Dressing</i>	889	836	827	99
<i>Information & Communication Technology</i>	2526	2340	2247	96
Total	4429	4123	4004	97

started in the month of March itself. The scheme commenced on 20/05/2009 and by early July 2009 all the courses were finished. The evaluation of these courses was completed in July itself. DGET provided the completion certificates to 4004 successful students, a success rate of 97% (Table 1).

Part 4: Learning

Success of this initiative encouraged the Directorate in approaching the Planning Commission for making it a regular feature as a Plan Scheme²¹. This Scheme has since then, continued in Delhi with minor modifications. However, it would be worthwhile to get an independent evaluation of this initiative done in order to strengthen it and to replicate it to other senior secondary schools of the country.

Following positive factors are noticed in this initiative:

- (1) Catch them Young: A student in senior secondary class is more than 16 years of age. She/he is aware about her/his interest and potential, to some extent. School is the most disciplined environment to pass on basics of employable skills. For students coming from marginal families, this is the right time to expose them to such skills.
- (2) Education with employability: Imparting training for MES courses within the schools helps in establishing a linkage between education and employability for the students who opt for Arts, Science or Commerce stream.
- (3) Gender benefits: The response of girl students has been very encouraging. The school environment offered safety and security and the parents/guardians supported this wholeheartedly. It is worth mentioning here that more than fifty percent students, who completed the courses successfully, were girls.
- (4) Students from Poor families: Due to higher education cost in private schools, students from poorer background preferred Delhi government schools. This Scheme offers them hope for acquiring employable skills without any additional costs.

²¹ Available at

<http://www.delhi.gov.in/wps/wcm/connect/06585f80425a2cfc534bdb0d5f7ce2c/9General+Education+%5B79130%5D.pdf?MOD=AJPERES&CACHEID=06585f80425a2cfc534bdb0d5f7ce2c> (accessed on 10/09/2010)

- (5) Convergence of two separate efforts: MES courses are coordinated by DGET, Government of India. Its integration with the Education Directorate provides an opportunity to dovetail various development initiatives at the state and central level.
- (6) Capacity building of schools: This initiative helped the schools in realising its potential for employability. It also informed the school management and teachers about various employable skills.
- (7) Optimum use of School Infrastructure: During summer vacation, school infrastructure remains idle. Creating new training infrastructure costs money and time. This initiative helps in overcoming the barrier of infrastructure.

However, the initiative also indicated some risks. These are:

- (1) Initiating the scheme for secondary school students: Being politically attractive, there may be a temptation to initiate these courses in class IX-X itself. This will defeat the purpose of RMSA, which intends to increase the successful completion of secondary education for students. 12 years schooling is important for all and any initiative to introduce MES course before senior secondary may be counter productive.
- (2) Organizing the courses during school time: It is necessary not to interfere with the school curriculum drastically. There may be a tendency to use library or physical education (games) periods for this purpose. This will not be suitable for the students' overall well-being.
- (3) Reluctance on the part of school management: Overburdened school management may not be keen to take up another task. It is necessary to create right incentive structure to ensure their participation.
- (4) Funding: In Delhi, the Directorate was able to scrape through in the first year without any seed money. The funding from the central government (DGET) depends upon various documents, certificates. However, training and evaluation cost money. This can be taken care by providing one time seed money. Even students may be asked to deposit (returnable) training fee, however, it may become a barrier for poor students.
- (5) Linkage with market: It is a general tendency to expect employment after completion of course. Straight talking is important and every

person involved, directly or indirectly, must have complete information about the objective of the course.

Part 5: Pathways

Organizing MES courses at the senior secondary level within the school environment has great potential. It may create solid foundation for basic skilled workforce in the country. This workforce, being educated, will be more capable to adapt to the changing market environment. They will be better placed to upgrade their skills in future to increase their productivity. Since all expenditure is currently reimbursable by the central government, it seems a viable option for learning without any cost on the part of student or the concerned education department.

The existing education system offers negligible opportunity of employable skill learning for the students in Arts, Science and Commerce streams at the school level. Their counterparts in vocational stream seem better placed in this direction. However, the expansion of this stream does not seem feasible in view of limited awareness, lack of resources and preferred biases in favour of three conventional streams.

The case study of Delhi government senior secondary schools for running MES courses is an encouraging experiment. 4004 students, 97% of total appeared, in different courses got successful. As a secondary consequence, it helped in building the capacity of the school management and in creating awareness amongst all the stakeholders. Moreover, it helped in reaching to girl students and the students coming from poor background. Its continuity depends upon careful implementation and close monitoring. Learning from Delhi's experience may help other senior secondary schools in the country to explore similar linkages through their education departments to facilitate skill training under MES initiative to all the senior secondary students in making the 'Hanuman Kood' a successful jump.

(The views expressed in the article are author's personal views.)

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KUDUMBASHREE: A Participatory Approach to Development

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Abstract

Kerala has a unique place in the developmental history of India. It boasts of the lowest infant mortality and the highest life expectancy rates in India. It is the only state where the number of females is more than that of males. It has a high level of literacy and the largest per-capita circulation of newspapers and magazines in India.

This state is noted for its social reform movements. It holds the credit of having elected as its first government a Communist one in 1957 after its formation in 1956. Reforms in the fields of education and land administration were initiated to bring down the social and economic inequalities. Thereafter, the state made many strides to develop into what it is today. The level of social development that Kerala has achieved is commendable and comparable with the developed countries of the world. A striking feature is that Kerala's social development has come about without corresponding economic development as is the case with developed countries of the world. As Amartya Sen says: "[T]he average levels of literacy, life expectancy, infant mortality, etc., in India are enormously adverse compared with China, and yet in all these respects Kerala does significantly better than China". He further says: "In some respects, Kerala despite its low income level -- has achieved more than even some of the most admired high-growth economies, such as South Korea". Scientific American has named Kerala "A Mystery Inside a Riddle Inside an Enigma" (Wallich qtd. in Alexander, 140).

Kerala has to accelerate the pace of economic development to match the kind of social upliftment made so as to maintain stability in growth and development. The economy of Kerala grew at a rate of around 2.27 % in the 1970s and 1.16% in the Eighties. The average growth rate for the last fifteen years has been around 5.8% which is comparable to the national average. The high level of education, especially female education, and better child care facilities have contributed to the decreasing birth rate and the approval of the small family norm. The death rate and infant mortality rate have come down substantially over the years and these

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occurred faster when compared to the national average. The state government declared in 1991 that Kerala had achieved 'total literacy. That was made possible through Total Literacy Campaign carried out by the Kerala Sastra Sahitya Parishad (KSSP) or the 'People's Science Movement' which won the 1996 alternative Nobel Prize.

Women empowerment is possible only through female education and awareness, a high average age at the time of marriage, high rate of employment and role in decision-making. Amartya Sen rightly points out, "Nothing, arguably, is as important today in the political economy of development as an adequate recognition of political, economic and social leadership of women. This is indeed a crucial aspect of 'development as freedom'" (qtd. in Oommen, 86).

This paper traces the history of 'Kudumbashree' in Kerala, one of the major initiatives in poverty eradication in which women are involved and attempts to bring out its salient features through a study of its performance. Women form themselves into Self Help Groups and try to gain economically. This has added a different dimension to the process of development in Kerala.

The Origins of 'Kudumbashree'

Programmes for Basic Services to the Urban Poor

Kerala has been witness to various practices in micro credit since the Eighties. The Self-Help Groups are a product of the belief in community action for effecting economic growth. The identification of the poor by the community took place in the nineties in Alappuzha under the Urban Basic Services for the Poor (UBSP) programme during the Eighth Five Year Plan period.

The UBSP programme was a revamping of the Urban Service Scheme (UBS) on the recommendations of the National Commission on Urbanisation (NCU). The UBS was introduced by the Government of India during the Seventh Five Year Plan in 1986-87 for the welfare of the poor, particularly women and children in the urban areas in the fields of health, environment etc. by making them aware and educating them. The UNICEF was a partner in the programme which covered one hundred and sixty eight towns in thirty seven districts. The Scheme was a joint venture of the UNICEF, Central Government, State Government and the concerned Municipalities. The Scheme was started in thirteen towns of Alappuzha and Ernakulam in 1987. People's participation via community and making them self-reliant were the objectives.

The UBSP was a way of merging the services accessed by urban poor from various programmes and schemes of different departments. The poverty alleviation programmes of the Urban Poverty Alleviation Division of the Ministry of Urban Affairs like UBSP, Nehru Rozgar Yojana (NRY), Low Cost Sanitation Scheme (LCS) and Environment Improvement of Urban Slums (EIUS) were put together to achieve the shared objectives. The UBSP was spread across five hundred towns in the country in 1992-93. Sixteen towns in Kerala were selected as UBSP towns. Alappuzha, Thiruvananthapuram and Kollam were the 'demonstration towns' of the UNICEF. The UNICEF bore the training expenditure. The Centre provided sixty percent of the cost of the remaining towns while forty percent was to be spent by the State Government. Self employment for women, skill development training, drinking water, smokeless chullahs, low cost two-pit latrines and drainage facilities, sanitation and personal hygiene, education for children, immunization, housing and so on were the objectives of the programme.

Community Based Nutrition Programme and Poverty Index

The Community Based Nutrition Programme (CBNP) was launched in Alappuzha town in 1992. The UNICEF was also associated with the programme. It was amalgamated with the UBSP programme. A wide Community Based Survey was undertaken under the CBNP/UBSP to analyse the outputs of the programme of providing 'urban basic services'. Out of the thirty-six wards of the town, the households of seven wards were included in the survey. The results of the survey were a matter of discussion among the members of the community. The poor women of Alappuzha town talked about their own views on the programme. These included suggestions like the poorest of the poor should be the primary beneficiaries of the programme. The women were of the opinion that the poor should be identified by the community itself as the data on household income to measure poverty were not reliable. They also found that they had no part in the decision-making process which was the realm of men. They wished to carry out the programme by themselves by setting up a community-based structure from which would flow the powers of planning, decision-making, implementation and monitoring. These structures would be linked with the Municipality, the Government, its departments and agencies and the UNICEF. The community-based structure would be the focal point in terms of delivery of services. An organization at the local level of the Municipality would serve to establish links with the higher and lower levels. It would not,

however, interfere with the working of the community-based structure. Thus the women decided to upgrade the quality of their lives by themselves. The Government, the Municipality, the UNICEF and other agencies had to play their own respective roles.

Amartya Sen considers poverty as a state of deprivation wherein one suffers from lack of basic capabilities in terms of what one wishes to do or become like education, health, employment, empowerment, equity and security. A 'Poverty Index' was developed consisting of nine verifiable factors to assess poverty. The factors were: thatched or kutcha house or sub standard house or hut, absence of a latrine, employment for only one person in the family, at least one uneducated person, at least one child of 0-5 years old, drinking water not available within a radius of 500 feet, at least one person using intoxicants, family belonging to the Scheduled Caste or Tribe and having means only for less than two meals a day.

The NABARD also stepped in at this point of time with the Self Help Groups and banking system came to be utilized for them. The CBNP in Malappuram district in 1994 was grounded on the happenings in Alappuzha. It attempted to raise a community-based structure of women for delivering the services of the programmes of government. The Seventy Third and Seventy Fourth Constitutional Amendments of 1992 were landmarks in that the Panchayati Raj institutions and Urban Local Bodies became powerful. In Kerala, the process of decentralization started off in October 1995 when many developmental activities were entrusted to the local governments. The second wave was in August 1996 when about one-third of the resources of the State Plan were decided to be transferred to the local governments. The People's Plan Campaign was launched in the same year. "It (Kerala) is also the first state in India, which tried to combine planning processes, participatory techniques and ideas relating to good governance along with the decentralization effort" (Stephen John and Jos 54).

People's Plan

The People's Plan Campaign was a milestone achievement in the governance pattern of Kerala. It was the result of discussions held at the First International Congress on Kerala Studies and other conferences in 1995 and 1996 and also the New Democratic Initiatives (1987 to 1991) of the Left Democratic Front (LDF) Government. The Plan consisted of the Total Literacy Campaign, elected councils in district, funds to local Panchayats, People's Resource Mapping Programme etc. The Campaign was planned on the basis

of certain beliefs. One was that local people were in a better position to know of their needs and issues than the government officials. The officials and experts should work with the people rather than controlling them from above. The optimum utilization of available resources was thus possible. The Campaign would encourage people to express themselves on matters which they would not be able to disclose and discuss in the formal environment of the government. There would be an attitudinal change in both the 'government' and the people. Planning at the local level and people's participation in it would help in furthering development in a truly democratic way. The 'felt needs of the people' were known during the Gram Sabha or ward assembly meetings. The people's views came about on different subjects like agriculture, irrigation, fisheries and animal husbandry, education, industry, transport, energy and markets, housing, social welfare, drinking water, public health, culture, women's welfare, scheduled castes' and scheduled tribes' welfare, cooperatives and pooling of resources.

Reports were prepared showing information got from the field. Nine hundred and ninety Panchayats and sixty three municipalities reported on their geographical, social and economic details. The mapping of places took place through 'transect walks'. The environmental aspects were taken care of in the maps so that planning in future would take them into account. Plans were drawn up at the Panchayat level and these went to the Block level and finally to the District. Even though the Campaign suffered from instances of corruption and people's participation, especially of women, scheduled castes and scheduled tribes not being up to the expected levels, it saw people planning out things, allocation of funds to the scheduled castes and scheduled tribes and the government machinery trying to be transparent and accountable.

Kudumbashree

The ten year poverty eradication programme of the State namely Kudumbashree was inaugurated by the Prime Minister of India at a meeting of about one and a half lakh of poor people in Malappuram on the 17th of May 1998. There were around fourteen partners like NABARD, UNICEF, HUDCO, UNFPA, local bodies etc and about sixty two thousand NHGs, ten thousand and fifty ADSs and three lakh volunteers from the community. By the March 2002, Kudumbashree spread to the whole state. Kudumbashree works in collaboration with the Khadi and Village Industries Commission, Social

Welfare Department, Scheduled Tribes Department, Industries Department and Spices Board.

Kudumbashree in Kerala is one of the significant steps towards the empowerment of women in India. It is a G2C or Government to Citizen programme. 'Kudumbashree' literally means "prosperity ('shree') of the family ('kudumbam')". The woman who is no longer the 'Angel in the House' but a 'Woman in the World' represents the 'shree' of the Indian family.

Kudumbashree is regarded as a great leap forward since the land reforms movement, literacy campaign, People's Plan etc. It has been realized as one of the foremost initiatives in the Kerala Model of Development. It is aimed at removing poverty through the efforts of people themselves and the Local Self Governments have to take the lead. It took off as a joint programme of the Government of Kerala and the National Bank for Agriculture and Rural Development (NABARD) and was effected through the Community Development Societies consisting of poor women and constituting a part of the local self governments. The participatory approach to development through reducing poverty is evident in the process of planning that takes place in the Gram Sabhas.

The Essence of Kudumbashree

The Elements of Kudumbashree

The three vital elements of Kudumbashree are - micro credit, entrepreneurship and empowerment. The poor are identified using clear-cut criteria, on the basis of community. The principle of Inclusion of All is followed in the programme as in the case of the Eleventh Plan. The concept of 'social capital' as put forward by Robert Putnam is also an inherent element of and an important output of Kudumbashree as women from diverse backgrounds meet on a common platform to discuss their issues and come up with solutions suited to the local conditions. The wealth of wisdom and knowledge that arises out of this interaction is for the benefit of the individual, family, society, state and nation. It builds their confidence and mutual belief in their abilities to tackle individual and yet common, social issues at their own level. The measures under the programme are planned to secure social security with the involvement of the beneficiaries themselves who respond with their demands. The programme can be expanded to include the young and the old. The feedback and monitoring mechanisms are strong enough that the weaknesses are highlighted and corrective measures

can be taken to improve performance. There are about thirty seven lakh members from more than half of the households in Kerala. The programme has been successful in serving its purpose in the sense that the basic minimum needs of the poor women have been satisfied to the extent that they can live with dignity and security of livelihood.

Kudumbashree has its basis in the SHG-model made popular by NABARD similar to the Grameen Bank model of Muhammad Yunus in Bangladesh. Credit mobilization is at the core of Kudumbashree. The NHGs don the role of Thrift and Credit Societies (TCS). Credit is mobilized from the savings of members during weekly meetings. The money is deposited by the community volunteer in a commercial or cooperative bank. The member is given an individual passbook and money is lent to the needy members. They can avail themselves of loans to satisfy the needs of family like medical expenses, purchase of textbooks, uniforms and to pay off their existing debts, if any. More than ninety percent of savings are given away as loans. The selection of beneficiaries, the amount of loan, the rate of interest and the period of repayment are all decided by women. Monitoring is done by the NHGs themselves. The TCS constitute the largest 'informal' banking system in Asia. 10,687 Thrift and Credit Societies are there in fifty eight towns and the number is 1,45,674 in rural areas covering nine hundred and ninety one Village Panchayats in Kerala. "The poor women act as savers, borrowers, account keepers and financial managers" (Oommen 7). Women are given training in Community Financial Management.

The Linkage Banking Programme has been made use of as the NHGs are connected to banks. But only twenty one percent of the thrift money is credit availed through banks. 56 percent of NHGs do not make use of bank-linkage facility. Banks charge an interest of 10.5 percent on loans to SHGs and NABARD refines at the rate of 6.5 percent. The total thrift that the NHGs collected during 2008-2009 was Rs.172.7 crores and the loans raised come to Rs.481crores. Loans given away through Linkage Banking Programme amount to Rs.15547 lakhs.

Kudumbashree differs from other Self Help Group initiatives in that it has been capable of reaching out to the poor woman in a village or a ward. It has become an instrument for the success of any development activity. In other words, all aspects of social welfare are now routed through Kudumbashree. Varied programmes are required for the empowerment of poor and the poorest of the poor. In Kudumbashree, poverty means that the poor are

deprived of not only money but also basic rights, which makes it different from other poverty eradication programmes. It is a programme of the community, by the community and for the community.

Mission Statement

Kudumbashree has proclaimed its mission statement as follows:

To eradicate absolute poverty in ten years through concerted community action under the leadership of local governments, by facilitating organization of the poor for combining self-help with demand-led convergence of available services and resources to tackle the multiple dimensions and manifestations of poverty, holistically.

(www.kudumbashree.org)

Structure

Organizational Setup

Kudumbashree is a society registered as the State Poverty Eradication Mission under the Travancore Kochi Literary, Scientific and Charitable Societies Act of 1955. The Chairman of the governing body is the Minister for Local Self Government in the State. There are field officers in each district. The official setup helps in coordinating and strengthening the activities of the community.

Kudumbashree has a three tier structure consisting of Neighbourhood Groups (NHGs), Area Development Societies (ADS) and Community Development Societies (CDS). An NHG or Ayalkootam consists of twenty to thirty women with five volunteers who perform different functions. They are Community Health volunteer, Income Generation volunteer, Infrastructure volunteer, Secretary and President. The former looks after healthcare needs like immunization, maternal and child healthcare, nutritional requirements, cleanliness and hygiene. Infrastructure volunteer takes care of drinking water, housing, sanitation, drainage etc. Income Generation volunteer looks into opportunities for income generation like self employment and acts as a link of the NHG with NABARD and commercial banks. Eight to ten NHGs form an ADC. The NHGs send their representatives to the ADCs at the ward level and the ADCs to the CDSs. Plans are prepared at each level Micro Plan of the NHG and Mini Plan of the ADS -- and finally consolidated at the level of CDS as a Sub Plan of the local self government. It is a bottom-up approach to and participatory model of planning.

There are 1.94 lakh NHGs, more than 17,000 ADCs and 1061 CDSs. More than 37.69 lakh families in the rural areas benefit from this programme. Through these Groups and Societies, women have come to the forefront of society by being members and participating in the proceedings of the Gram Sabha and giving vent to the grievances of poor people. The CDSs undertake surveys of the social and economic status of people, social audit of the activities etc and thus actively contribute to the process of development. A state level office headed by an IAS officer functions as the controlling authority of the Kudumbashree Mission. A District Mission Team works at the district level. A charge officer and the CDS governing committee handle administration at the level of panchayat. Government employees work on deputation with the Mission.

The Governing Body of Kudumbashree which meets once in three months takes decision at the policy level. The Governing Body has as its members Secretaries in the Departments of Finance, SC and ST Development, Social Welfare, Health & Family Welfare, General Education, Rural Development, the Director of Panchayats, Director of Municipal Administration, General Manager of NABARD, Nominee of State Planning Board, one District Collector nominated by the Government of Kerala and women's representation is ensured through the membership of Chairperson of the State Women's Commission or her nominee, one Lady Mayor nominated by the State Government, one Lady District Panchayat President nominated by the State Government, two Municipal Chairpersons of whom one shall be a woman, two Block Panchayat Presidents of whom one shall be a woman, two nominees of Panchayat Presidents Association of which one shall be a woman, three eminent persons nominated by the State Government of which at least two shall be women. The present Executive Director of Kudumbashree is a lady IAS Officer.

In 2008, an Executive Committee was set up consisting of the Principal Secretary of the Department of Local Self Government as the Chairman, the Executive Director of Kudumbashree as the Convenor, the Director of Panchayats, a Finance Department official, the Commissioner for Rural Development and the Director of Urban Affairs as members.

The organization of Kudumbashree is as follows:

Executive Director

Director (A&F)

Administrative Officer-Accounts Officer-Public Relations Officer-Programme Officer (UPA) - Programme Officer (Marketing) - Programme Officer (ME&HR) - Programme Officer (Samagra) - Programme Officer (Training and Gender) - Charge Officer (Social Development) Senior Consultant (MF) - Support Staff (OSS) and Consultants.

Kudumbashree and the Local Self Government

The Grama Panchayats and urban local bodies rope in the Kudumbashree CDSs to work out their plans of action, especially in the field of poverty reduction. The Local Self Government has formulated Citizen's Charters in consonance with the model of Kudumbashree. Kudumbashree took part in the exercise of the BPL list being validated by the community. The 'network' of Kudumbashree is used for many of the community related projects like universalisation of Take Home Ration, computer education in schools, rehabilitation of the destitute population etc. Women through Kudumbashree get representation in the activities of the government. They are able to channel the resources in the right direction. The gap between the citizens and the government is bound to get reduced in the whole process. Agricultural production, economic development, poverty eradication, social equity etc. have been adopted as the objectives of the Eleventh Five Year Plan. These are the concerns of the LSGs and women from the CDSs of Kudumbashree are members of the LSG Working Groups on projects for the same. Women are being looked upon as the agents of change by assuring transparency and accountability in the governance of the state.

An Analysis of Performance

Achievements and Impact

Kudumbashree is regarded as one of the largest movements for women empowerment in Asia itself. The people of a community get together as a group to provide help to the poor. The collective responsibility of the people, government, civil society and all other stakeholders is emphasized in Kudumbashree.

The number of NHGs increased from more than 37,000 in April 2000 to 1.77 lakhs in November 2006 and the increase in the number of families is from 8.67 lakhs to 37.35 lakhs. The number of NHGs in each Gram Panchayat increased from 29 in March 2001 to 165 in November 2006. The percentage of

the total NHG families taking only one meal a day is only 3.5 percent. There is a sixteen percentage reduction in the proportion of families taking only one meal a day. The number of families taking three meals a day has increased over the years.

Above three lakh NHG members undertake farming on leased land under the Lease Land Farming Programme called Harithashree. Dairy industry is another source of income. Yuvasree, launched in 2005, is a Special Employment Programme for men and women in the age group of eighteen to thirty five years under Kudumbashree. The guidelines of Yuvasree are being modified to attract more people to open enterprises on their own. Bhavanashree, a micro housing programme is a scheme in housing loan to the poor in rural areas in which the interest rate is seven to eight percent per year. The NHG members are also given technical training in building houses. Sixteen percent reportedly benefited from the housing scheme which is yet to register its results. More than fifty percent of the houses constructed are concrete ones. Two thousand four hundred and five houses were constructed and Rs.1,067 lakhs was disbursed during 2008-09. Open defecation is considerably reduced with more than twenty nine percent families resisting from it.

Ashraya is a project in destitute identification and rehabilitation. The Self Sufficiency, Self Reliance and Sustainability project (S3) in the Village Panchayats deals with a host of issues like geriatric care, child and adolescent care, care of the differently abled, women's empowerment, unemployed educated youth and so on. The three panchayats where it was initiated on a pilot basis are Venganoor in Thiruvananthapuram, Kodakara in Thrissur and Munniyoor in Malappuram. It was there after extended to other panchayats. Under Swarna Jayanti Shahari Rozgar Yojana, self employment programmes are undertaken in the fifty three Municipalities and five Corporations. Enterprises can be set up individually or by a group of a minimum of ten people. Fifteen thousand three hundred and eighty two individual and one thousand three hundred and sixty five group enterprises come under the programme. The Goat-Rabbit-Quail (GRQ) Project is another micro enterprise aimed at providing regular income to the families practising farming at homes.

Kudumbashree, an NGO called Health Action for People (HAP) and State Bank of India (SBI) jointly started an enterprise by the name, Santhwanam. It consists of educated women from Kudumbashree families who go to houses and take measurements of height, weight, body mass index and check blood

pressure and blood glucose level of the members of family. Santhwanam was formed with a view to fight prevalent lifestyle diseases. Hundred members were trained in 2008-09.

Balasabhas, with the slogan 'Catch them young and nip poverty in the buds', are the Neighbourhood Groups of Children in urban as well as rural areas. Women have realized the importance of education and started sending their children to schools. The Local Self Governments have set up special schools named 'Buds' for the physically and mentally challenged children.

In Kudumbashree's solid waste management programme, Clean Kerala Business, carried out in association with the Urban Local Bodies, women from Community Based Organisations collect waste from house to house. . 'Thelima' refers to the entrepreneur groups for solid waste management in urban areas. Clean Destination Campaign in tourist places involves Kudumbashree workers.

Many micro enterprises like Vidyashree Computer units, clinical laboratories, manufacture of rubber products, production of coconut oil and food items etc are undertaken under the Mission. Nutrimix Babyfood Production Project is a child welfare measure under Kudumbashree. Nutrimix is the product of research by Central Plantation and Crops Research Institute (CPCRI) in Kasargod. Nutrimix is supplied to Anganwadi children as a result of cooperation between the Social Welfare Department and Kudumbashree. A micro enterprise project named Nature Fresh for the production and marketing of milk was implemented on a pilot basis at Edavetti Grama Panchayat in Idukki. Other panchayats have taken up this project which laid the foundation for Ksheerashree project of Thiruvananthapuram and Samagra, "an initiative independently developed by Kudumbashree being implemented in the State in collaboration with the three tier local self governments and other agencies. ...an attempt to address the entire production supply value chain holistically, by scaling up productive activity both qualitatively and quantitatively and seeking viable supply opportunities" (Annual Administration Report 2008-09, 37).

Kerashree is a famous brand of coconut oil in Kerala produced by Kudumbashree women. Gramashree hotel and grocery shop, Pulari curry powder, Udaya chappals and leather products, Navodaya bakery etc are some of the production units. In Arogya Swayam Sahaya Sanghams or health self help groups, Kudumbashree trains NHG health volunteers. Self employment opportunities have grown throughout the years.

The plan to engage Kudumbashree members in the implementation of National Rural Employment Guarantee Scheme (NREGS) is a welcome step in the direction of expanding the scope of Kudumbashree activities for poverty eradication. In 2008-09, NREGS was extended from four to all districts in the state. Kudumbashree ADS are concerned with:

1. Registration of labourers
2. Preparation of Annual Action Plan including labour budget and identification of works.
3. Selection of mate
4. Provision of amenities at worksite
5. Provision of tools and implements for work.
6. Community network to support social audit

(Annual Administration Report 2008-09, 24).

Capacity building programmes for Kudumbashree Mates were conducted in association with NREGs Mission in Wayanad, Idukki, Palakkad and Kasargod districts. Identify cards were also issued to Mates in Wayanad district as first phase so as to bring more legitimacy in their work. NREGs had also included as one of camping topics of Kudumbashree's CBO institutionalization Programme. And as part of it, effort has been made to capacitate and equip the Kudumbashree NHGs and ADS networks to play more pro active role in NREGs and also in the social auditing. NREGs had been included as one of the topics in the Kudumbashree CDS action plan. CDS action plan would provide more information relevant for the NREGs action plan formulation. (Annual Administration Report 2008-09, 24-25)

According to the Eleventh Five Year Plan, Kudumbashree NHGs are entrusted with the task of social audit of NREGS by the state government.

Tribal Special Project (TSP) is being implemented as a pilot project in four districts of Idukki, Waynad, Palakkad and Kasargod. Formation of NHGs and implementation of NREGS are being undertaken in the chosen areas. One thousand eight hundred and ninety six NHGs have been set up in tribal areas in 2008-09.

The beneficiaries of Aam Aadmi Bima Yojana for rural landless labourers and Rashtriya Swasthya Bima Yojana or Comprehensive Health Insurance Scheme of the Government of India are identified as per the information provided by the Mission. Kudumbashree is the State Level Nodal Agency

(SLNA) for the implementation of Integrated Housing and Slum Development Programme (IHSDP) and Basic Services to the Urban Poor (BSUP), two Centrally Sponsored Schemes which are included in the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). It is the nodal agency for Integrated Low Cost Sanitation Scheme (ILCS) also. It is a centrally sponsored scheme of the Ministry of Housing and Urban Poverty Alleviation and is being implemented in Perinthalmanna in Malappuram and Ottappalam in Palakkad.

Three thousand and two hundred members of Kudumbashree community-based organisations contested the 2005 elections to local bodies. One thousand four hundred and eight of them got through the elections.

The Ministry of Information Technology has approved an MIS solution and Repayment Information and Monitoring System being developed by the Centre for Development of Advanced Computing (C-DAC) for Kudumbashree.

The increase in literacy rates, better health conditions, improvement in drinking water supply and housing conditions show that Kudumbashree is on the right path of securing its goal of poverty reduction. The social, political and economic empowerment of women has been made possible as women have come to understand the importance of legal literacy, need to fight against social evils and are now a part of the political framework through membership in the local government bodies. Women of the NHGs in Alappuzha started a movement against arrack to bring down the level of alcohol consumption. Accordingly, alcoholism is reported to have come down from fifty five percent in 1992 to twenty five percent in 1999. Oommen says: "A good majority of the members in the active NHGs have acquired self-confidence, a sense of security, communication skills, recognized their innate capabilities, and above all learnt group dynamics" (qtd. in Kadiyala, 16).

The Mission has won awards and acknowledgements like 'We the people' Award from the U.N in 1995, International Innovations Gold Medal of CAPAM in 2000, UN Habitat 2002 Practices Global 100 List in 2002, UNDP Award for the one among the fifteen Best Practices in India in 2002 and 2006 India Innovation Award for Social Innovations.

Problems and Suggestions

The nine point Poverty Index is subject to criticism as it does not include income, land or any other assets capable of generating income. All the

criteria cannot be given equal weightage. An illiterate adult in a family does not contribute to poverty as much as a child who is not sent to school due to income constraints. The presence of only one employed person does not mean that the family is poor as that person may earn enough or even more than is required for all in the family. A family identified as poor on the basis of four out of nine indicators may find itself out of the list when a child in the family grows beyond five years. Therefore the criterion of the presence in the family of a child less than five years of age has been done away with by Kudumbashree. Even a Scheduled Caste or Scheduled Tribe family or a family with a drug addict or a consumer of alcohol need not be poor. The indicators have to be revised to make the Index more authentic.

The number of households in poverty is more than half of the total households. Out of the 7.5 million households in the state, 3.8 million have been classified as poor as per the four out of nine criteria of Poverty Index. There are, however, doubts regarding the criteria of Poverty Index and therefore the figures as well. There has been no significant increase in income levels or assets as reported in the case of ninety one percent and eighty two percent of ST and SC families respectively. The situation of debt requires serious consideration. The average debt stands at Rs.14566 in highlands and Rs.28927 in coastal areas, the overall average being Rs.19236 which is comparable to Rs.19666, the average indebtedness of a rural household reported by NSS in the fifty ninth round.

There were 1051 individual enterprises and 2789 group enterprises in the rural areas by the end of December 2006. But these were restricted to a few districts. This unevenness has to be corrected for the success of the Mission in the whole of the state.

The CDS or NHGs or ADS are looked upon as attempting to take away the powers of local bodies as is, in the case of many Grama Panchayats. The focus on micro credit and thrift tends to relegate the problems of education, nutrition, health and sanitation into the background. There should be more emphasis on maternal and child healthcare and nutrition of children apart from micro-enterprises. The ICDS and maternal child welfare centers need to be connected with the activities of the CDS. The sanitary facilities are to be improved further as nearly ten percent still indulge in open defecation.

The members of the CDS in Kasargod, as M.A Oommen remarks in The Community Development Society of Kerala, recorded a lower level of participation in the field of planning and decision-making as compared to

the municipality. This is true of women of NHGs. The participation should not be limited to just attending the meetings of Gram Sabhas. The needs of the community should be preferred to individual ones. S.J. Anand in his *Self-help Groups in Empowering Women: Case Study of Selected SHGs and NHGs* points out the situation in Malappuram in the following words: "During the field survey about 73 percent of the members remarked that their participation in the political process was almost nil. Though 91 percent of the members in CDS groups attended the gram sabhas, some of them felt that there was no use in attending, as the major share of the panchayat funds went to politically affiliated persons. Others who attended the Gram Sabha at the initiative of the group leaders said that they merely sat as spectators" (qtd. in Kadiyala, 25). But there are areas where women take part in large numbers in Gram Sabhas. There is no balance in the level of participation across the state.

Sahayi Centre for Collective Learning and Action has tried to highlight some of the drawbacks of the system and functioning of Kudumbashree based on a study and interview of three hundred and twenty two members of NHGs, one hundred and fifty two NHG leaders, seventy six ADS and thirty eight CDS leaders, thirty eight Panchayat Presidents, thirty eight ward members and thirty eight Officers in charge of Kudumbashree at the Panchayat level in seven districts. There are people who have joined the NHGs without a clear idea of what they are expected to do and achieve. The administrative and bureaucratic mechanism tends to overpower them. Therefore the bureaucratic approach in CDS, ADS and NHGs should be replaced by a managerial one.

About one-third of the members of NHGs joined because of internal motivation while others were motivated by near and dear ones and politicians. A quarter of those who were interviewed had no knowledge of the objectives of their groups. But they were keen to comprehend the same. About two-third of them got trained while the rest are yet to be trained under the programme. About thirty six percent of those who were in doubt relied on their leaders' ability to clear their doubts.

So it is important that the leaders have to continually hone their skills and improve their knowledge and awareness for the effective functioning of the different groups. Around fifty seven percent opined that the decisions were taken by majority while thirty nine percent were of the view that the President or Secretary took the decisions either jointly or individually. There

was nearly ninety percent attendance in the weekly meetings and they did not find any difficulty in airing their views and opinions. About thirteen percent never attended Gram Sabha meetings. Twenty four percent attend only once in a while. Ninety five percent viewed the programme as free from political interference. Majority could draw benefits from being members of NHGs. Their knowledge, skills and attitude changed for the better. Many leaders encourage the members to attend the meetings. Ninety four percent of CDS leaders received training through Kudumbashree or voluntary agencies. Fifty three percent of officers-in-charge said that they could not carry out their official work due to their responsibilities in Kudumbashree. Appointing a full-time officer who is interested in the work is regarded as a solution.

The 'scaling up' process of Kudumbashree throughout the state has thrown up certain issues for which 'social marketing' is put forth as a viable shield. Kotler and Andreasen define social marketing as "differing from other areas of marketing only with respect to the objectives of the marketer and his or her organization. Social marketing seeks to influence social behaviors not to benefit the marketer, but to benefit the target audience and the general society" (qtd. in Edward and Zakkariya 82).

Social marketing is the systematic application of marketing alongside other concepts and techniques to achieve specific behavioural goals for a social good. It can be viewed as a social change campaign which is an organized effort conducted by one group (the change agent) which attempts to persuade others (the target adopters) to accept, modify, or abandon certain ideas, attitudes, practices or behavior. (Kotler and Andreason qtd. in Edward and Zakkariya 82)

The four Ps of social marketing Product, Price, Place and Promotion apply to Kudumbashree. The Products are viewed with reference to the benefits that accrue from them. Cost-benefit analysis is part of the concept of Price. The members pay a 'price' in terms of time, energy and resources and it is necessary to convince them of what they can attain. Place refers to the places of training, offices and meetings. Promotion involves advertisement, use of media for popularizing the programme and public relations. The officers at the district level tried to promote the programme at the Panchayat and Municipality levels. The Panchayats at the grassroot level attempted to create awareness among the people.

People may join the NHGs wanting to get short term results like money for paying off their debts etc which may defeat the purpose of realizing the goal of the Mission, namely empowerment in economic terms. Social marketing comes into play here as the programme can be moulded in such a way as to incorporate the achievement of its goal taking into account the current needs of the clientele, with an eye on the long term effects on society as well.

It is necessary to sustain the progress made by Kudumbashree. That the self-help groups of NGOs and other community organisations can affect the performance and impact of Kudumbashree cannot be overlooked and steps should be taken to strengthen the Mission's delivery system through continuous efforts. A Group Insurance Scheme can be developed for Kudumbashree members. Subsidising provisionary items or increasing the price of product can counter the problem of rising prices of provisionary items due to inflation and expenses in transporting a product from the place of production to that of demand. Availability of all provisionary items at one place like in a single window system will cut down expenses in travelling and save time.

Information and awareness about various programmes of the government among NHG members lead to their proper implementation. Training is an important component which needs to be build up in order to enable the members to sharpen their skills and contribute effectively to the Mission. Women who are not able to attend week-long training programmes in far away places should have the option of attending the same in the panchayat office itself. The trainers should be sufficiently motivated so as to enhance the quality of training. Qualitative training of all members and leaders, delineation of roles and responsibilities, more awareness campaigns, involvement of voluntary and civil society organisations on a larger scale, well established process of social audit, communication between Kudumbashree groups and local bodies, coordination and unity are the need of the hour.

Conclusion

Kudumbashree movement is (thus) first of its kind with many distinguishing features: it is an organizational innovation overcoming the barriers of government bureaucracy to reach the benefits of various government programs and resources to the poor; it is a Multi-sectoral, women centered, participatory poverty eradication movement which simultaneously aims for the economic empowerment of poor through the development and nurture

of thrift and credit societies and micro enterprises; it aims for social and political empowerment of socio economic disadvantaged section of the society by acting as collective social action domain and by creating avenues for the political participation. (Edward and Zakkariya 84)

Kerala tops the list of states which are part of the participatory mode of development in India in the annual study of the Panchayats Empowerment and Accountability Incentive Scheme of the Ministry of Panchayati Raj of the Government of India published in 2010 whereby the performance of states is evaluated on the basis of three criteria namely, functions, finances and functionaries. Kudumbashree has reinforced the development initiatives in Kerala and overall development is now possible through it. Kudumbashree, in itself, can be regarded as an independent 'model of development' in the years to come as it blends the vital aspects of decentralization, good governance and most importantly, people's participation. Kudumbashree or 'prosperity of the family' leads to prosperity and well being of the society and the nation at large

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