

## **Methodological Considerations Regarding Biases against Indigenous Knowledge System: A Survey of Development Theory**

### **Abstract**

*Sustainable development is greatly dependent on the political will of the governments, mode of governance, capacities of a state and the abilities of its people. It also requires a legal environment under which communities are empowered to pursue programs and projects. Raising awareness for sustainable development is different in many respects because sustainability calls for a long-term perspective, integrity of human support systems, equity, democratic and decentralized participatory decision-making and wise use of resources. It requires inter-personal communication to create a demand and capacity for a healthy and supportive environment. It is a universally acknowledged fact that people are both the 'means' and an 'end' to development. Often, this simple truth gets obscured because we are used to talking in abstractions, in aggregates, in numbers. Human beings, fortunately too stubborn to lend themselves to become a mere abstraction, are conveniently forgotten. Quantitative Sciences especially Economics, in discussing the means of development, often talk about investments and capital. Physical capital has taken a center stage, to the exclusion of many other factors of production. Human capital is measured neither quantitatively nor qualitatively. Nor does it receive the attention it deserves. On the other hand, many societies, despite an abundance of financial capital, have been unable to develop. The experience of the OPEC nations is illustrative in this respect. Human capital human institutions and skills were missing in most of these nations, and without it their vast windfall gains could not be translated into real development. This paper is based upon an empirical research held in a village of District Sheikhpura. The emphasis of paper was to see*

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**Abid Ghafoor Chaudhry**  
Department of Anthropology,  
PMAS-Arid Agriculture University, Rawalpindi

*the theoretical basis of development theory and to compare it with the Indigenous Population's Perception on Development. Objective of doing so was to remove the biases against the local perception and practices aiming development through increasing self-reliance and social empowerment due to which the dream of sustainable development could only be fulfilled in Pakistan. Data collection was done through the exploratory method while using main techniques of participant observation, in-depth interviews, focused group discussion and key informants.*

**Key Words:** *Conventional Development, Indigenous Knowledge System (IKS), Sustainable Livelihood, Participatory Development, Conflict Resolution,*

## **INTRODUCTION**

It is important to note that the term 'development' has been conceived differently by various 'development schools'. Since the debates on development with new perspectives have gained global attention, two schools in development debate have contributed considerably. Firstly, the 'modernization theory' and secondly 'dependency theory' but analysis of both tend towards a centralized view of development and interpret changes in the organization and activities of local populations as responses to externally-initiated change according to the observations of Norman Long.

He (1977) further explains that 'both approaches, it seems give sufficient attention to the ways in which local groups and processes can contribute and indeed modify the patterns of regional and national development. Hence, they tend to take too deterministic a view of socio-economic change and do not allow sufficiently for the interplay of local and national forces.' However a corrective to this view is provided by anthropological work on socio-economic change. Anthropologists have been particularly interested in the question of differential responses to change and have analyzed the emerging patterns of entrepreneurship at village level. This has been combined with an interest in developing actor-oriented models of behavior which identify the social strategies used by different individuals and households (Long, 1977). It is in these antecedents when Dube (1995) concludes that it is amazing that the notion of development was left so vaguely defined. Most of the indicators of

development — growth rate, GNP, and per capita income were purely economic criteria. Indicators of social and cultural development were not made explicit. On the basis of the above suppositions, there is a great need of the hour that concrete efforts should be made to revitalize our local knowledge and practices in order to come up with a sustainable model of development. Similarly instead of wasting our national resources, time and energy in chasing the foreign models at one point of time and evaluating the causes of the failure at the other, the effective revitalization of IKS can be time saving and cost effective mean to touch sustainability in development centered chores. It is encouraging to observe that, over the past ten years, there has been a dramatic increase of interest in the role that indigenous knowledge can play in promoting and adopting participatory approaches to seek sustainable development.

It may not be accidental that the growing interest in the potential contribution of indigenous knowledge to development is becoming manifest at a time when current development models have proven not too successful. Today, hundreds of millions of marginalized people all over the world are still being excluded from the mainstream of development. These people have not benefited from development efforts which have mostly been based on a top-down development model, with the maximization of productivity as its major target. The agricultural sector provides a prime example. The objective of the Green Revolution was to maximize yields through the introduction of new crops. These crops depended on the optimal availability of fertilizers and water to achieve high yields. From a production point of view, Green Revolution was a success, but its potential could only be fully realized in areas with good soil and a secure water supply, and by farmers with access to financial inputs. However, for people without good land, no adequate access to irrigation facilities and a lack of financial means, the results have been of little use.

## **LITERATURE REVIEW**

The national picture also worsens with the efforts made by the governments in their respective tenures and later on high jacked by the influential in the office or the influential rural supporters to whom Alavi (1976) calls “*Rasagirs*”. Working on these lines Chonchol (1976) focuses on the role of pressure groups and influential people in adoption of innovation especially through any project. He says that pressure groups or influential get their share on priority basis because they can afford to take risks and exploit others, because they know that while doing this

nobody would stop them and their links in government and bureaucracy would protect them. Roth (1976) in agreement with Chonchol also says that people who are neither big land lords nor politically influential, can easily be suppressed by influential people due to the lack of class solidarity among the poor. Issac (1971) in his study has also evaluated the relationship between wealth, power, political influential and improved agricultural innovations. He says that during the initial stages of adoption of agricultural innovation, persons in higher quartile of society in terms of wealth, power and influence are normally exceptionally innovative, while those in the lower quartiles are exceptionally conservative and persons in the high middle rank also tend to be conservative supporting the common idea of middle class conservativeness.

The recently developed notion of ‘participatory development’ in the world has in fact brought worth citing results in various fields especially agricultural sector. The government of Pakistan in the year 2001 launched a newly conceived developmental paradigm of “Devolution of Power” through the Local Government Ordinance (LGO) 2001 which was amended in the year following. Agricultural development was also envisioned at cross roads through this ordinance. Critics of developments have strongly expressed that this new concept was even a continuation of previously held “*Basic democracies*” (Ayub Khan’s period) in 1960s and “*Local bodies*” (General Zia’s era) in 1980s. The idea of Citizen Community Boards (CCBs) in LGO 2001 is another mean of benefiting the likeminded people who have opted to become vehicles of those who are after the whims of extension of their hold over country. Similar argument is made by Alavi (1976) who gives example of Pakistan. He says politically influential land lords manipulate the project into their favor, due to the power structure in Pakistan, which allows them to exploit, and they get share of small potential beneficiaries.

Burky says that the local power structure is inevitable in rural life because “individuals and political parties with ambitions in district, provincial or national politics seek alliances with the local faction leaders that secure for them support at the gross root level” (Burky, 1976). Having said the above, it is contended that how the notion of ‘participatory development’ is could be launched in a society witnessing conflicts, social exclusion of marginalized segments, caste disputes, land and familial hatreds. In fact common to all problems is what Prawl (1969) has mentioned about the planners, policy makers and the administrators as seeing

“farmers are ultra-conservative individuals, stepped in tradition, hemmed in by custom, lacking in motivation and incentive, captives of age-old methods, and lacking in ability to make decisions”. Alatas has emphasized the that anthropological studies have by now firmly established that farmers have been biasedly and wrongly characterized as lazy, conservative, bound up by traditions and superstitions. Such characterization has been and continues to be helpful only to planners and administrators because they are absolved from responsibilities for the project failures (Alatas, 1976).

Failure on the part of the planners and policy makers has rightly been highlighted by Thiesenhusen, Esman, Du Bois Cora and Frans Doorman. Thiesenhusen says “reaching to the poor has turned out to be a much more complex task than was earlier visualized” (Thiesenhusen: 1978). Esman discusses that planners and administrators here are on an unfamiliar ground. There is no previous experience to guide them in their operations (Esman: 1980). Often, they are therefore unable both to anticipate socio-cultural hurdles, which arise during the plan implementation phase, and to try to overcome them. Cora highlights the human factors in development process “since human factors in the rural development process have not traditionally been accorded the due importance, knowledge in these matters has not developed to the required degree” (Du Bois Cora: 1959). The contention is also affirmed by another scholar Roth (1976) who says that for an innovation, “it is must that the innovator should have cultural knowledge of the community in which he is going to introduce the innovation.” Two other important contributions have been made by Mendonsa (1980) and Currens (1976). As per Mendonsa’s evaluation, innovations are accepted in any area or domain, if these are according to the values of the target population. Similarly Currens is of the view that “while introducing any innovation the government and the officials are very important and the decisions of Government in this regard are of prime importance in the sense that if the same are against the needs or interests of masses then during the process of introduction, the innovation would face difficulties.”

Many case studies and research projects have shown that there are no simple technical Western solutions that can be easily diffused and adopted by people on the margins. New insights reveal that development interventions have failed to push people to participate because of the absence of instruments and mechanisms that enable them to use their own knowledge. Recent research has given valuable insights into how people use their own locally generated knowledge to change and

to improve, for example, natural resource management. Greater efforts therefore should be undertaken to strengthen the capacity of local people to develop their own knowledge base and to develop methodologies to promote activities aimed at the interface of scientific disciplines and indigenous knowledge. Garber and Jenden (1993) state that “Development projects are about delivering resources, not about anthropological analysis; they have to deliver resource to exist. Although some agencies and organization conduct initial ‘feasibility’ studies with the help of anthropologist, the ultimate goal remains the delivery of resources. Hence, most staff on a development program is recruited on the basis of relevant technical expertise, related to one resource or another. Anthropologists, when they are employed in ongoing development programs are most usually expatriates, and rarely do they participate directly in the delivery system. Rather, they are observers of the delivery process and, as observers, acquire their own particular understanding of what’s goes on. Because of their unique interests, anthropologists tend to be distinct from anyone else involved in the delivery”. Seddon (1993) also comments that “all too often development projects designed and implemented by international aid agencies lack that crucial appreciation and understanding of the dynamics of local economy and society that derives from what I call ‘anthropological approach’. Such an approach involves a detailed analysis of the complexities of local level structures and their operation based on an adequate body of empirical material collected with due consideration for these complexities. It involves recognition that economic or sociological models cannot simply be translated from one context to another and applied without local research if they are not to do considerable damage to local processes.”

### **Native Perspective on Properties of IKS**

Having stated about importance of IKS and Development, the paper would now present the local briefings of rural people regarding how they perceived IKS as a conduit of development especially in agricultural domain.

### **IKS is a Carrier of Sustainable Livelihoods**

The major understanding of the people about current day’s agriculture was that though it promised high output in form of agricultural yield but it required the innovator and adopters to make sure that high inputs are also contributed. People in a historical perspective compared that before the advent of mechanized agriculture,

the mode of agriculture was largely at subsistence level. Whereas the new technologies implied in the agricultural sector has considerably increased the rural poverty because of the complex cycle of chemical technology regarding cropping patterns and expensive agricultural machinery have endangered the subsistence of poor farming families. According to IFAD (2006) “the Sustainable Livelihood Approach (SLA) is a way to improve understanding of the livelihoods of poor people. It draws on the main factors that affect poor people’s livelihoods and the typical relationships between these factors. It can be used in planning new development activities and in assessing the contribution that existing activities have made to sustaining livelihoods”.

People question that if the use of mechanized agriculture was to be promoted there must have been a clearly articulated methodology (tested and retested by the government) to remove the negative impact of high reliance on the modern technology. The promise of high economic gains through modern agriculture was not fulfilled rather the recipients were even robbed of what they were having in original through their traditional methods. These conditions made scholars to reconsider their development models and paradigms to see the possible leakages and weaknesses. In this respect, the locally evolved IKS could raise the Sustainability of Livelihoods in rural areas, as Ashley and Carney (1999) are of the view that:

*The SLA does not claim to be a new development paradigm or even a new approach to development.... meaning a set of principles, backed up with a set of tools; the plural (approaches) is used deliberately to indicate that there is no single way forward that might conflict with other development approaches.*

This view further supports that IKS methodology needs to be considered in detail with respect to the response after being quit for so many years. Moreover, it signifies the importance of research to update the traditional methods according to current social and economic compulsions. These knowledge systems may appear simple to outsiders but they represent mechanisms to ensure minimal livelihoods for local people. IKS often are elaborate, and they are adapted to local cultural and environmental conditions (Warren, 1987).

### **IKS can fight Rural Poverty**

People compare modern methods with their traditional farming and opine that their traditional methods were compatible. The reasons in support of this view are like; no

hazards to soil fertility level, low level of pest attacking crops, low rate of disease attack, local practices being village centered, cost effective and raising rates of social participation as supported by DFID: *Rural poverty has been accepted as both a major cause and result of degraded soils, vegetation, forests, water and natural habitats. The importance of environment-poverty links for the natural resource, health and vulnerability dimensions of the livelihoods of the poor is evident in empirical research* (DFID, 2001).

In addition, Pinstруп (*et al.*, 1997) and Scherr, (1999) have also found that:

*Rapid deforestation and biodiversity losses are depriving people of valuable forest resources, such as fuel wood, food and medicine. Soil degradation is a major threat to the livelihoods of 1 billion people, mostly the poor who are more likely to live in degraded or fragile areas.*

On the other hand, for rural people quitting IKS was not matter of just leaving behind a system of agricultural practices and adopting new ones rather it was more than that. Though, people also acknowledge their misunderstandings during adoption of modern farming as they thought that new farming practices and technologies would bring prosperity and material comfort in their lives. Unfortunately, this promise was never fulfilled. This shift of farming practices (from traditional to modern) produced a drastic change and antipathy in the lives of the farming community by destroying their cultural integrity and pushing them into a competition of material goods.

### **IKS is a based on Participatory and Integrated Development**

IKS as agreed by all scholastic contributions is a locally evolved system in which the indigenous people used to develop their own local model to ensure their subsistence. The early communities were also told to be interrelated because of their common survival challenges. Agriculture is a labor intensive profession therefore it was a far idea for rural people to sit idly and doing nothing for their livelihoods and contributing to their neighborhoods. IKS was based on the locally resources and functioned independently through social participation without outer dependence that successfully raised local empowerment. The current day's 'human development approach' seems to understand the importance of development by the people themselves. Mose *et al.*, (1995) state that 'in recent years there has been a

convergence of ideas about the importance of people's participation in rural development and participatory development.' FAO (2000) also acknowledges that:

*A range of participatory methods and tools has been developed to help rural people to diagnose problems, gather information, explore options, and commit themselves to action, often collective action.*

It was shared by the people that each time government proclaims to promote the participatory development in the rural areas; the rural people are always ousted from the process. It is so because local powerful people and others with their vested interest take most of lead in whole development exercise due to which real beneficiaries are left behind and remain unattended.

### **IKS concentrated on Participatory Planning**

All developmental initiatives under traditional knowledge system of practices were planned and executed locally that consumed local human and natural resources. People referred to their social consensus as the base of their community level interventions regarding their agriculture as well as their social lives. The view of people was because of their interdependence over their neighbors through a chain of relations based on emotions, sentiments and mutual help. Being a small scale community, people mostly related themselves with other residents of village in their needs. According to a local view, IKS is not only based on participatory approach rather it also promoted and required people to be united in a web of social and cultural relationships to ensure people's mutual survival. Mose (et al., 1995) are of the view that

“Decentralized and participatory planning, involves two interdependent processes: firstly, understanding local knowledge of farming systems, and people's interests and priorities for natural resources development; and secondly, the development of people's skills and confidence together with new institutional arrangements to support these, as the basis for continued participation in natural resource improvements beyond the life of the project”.

### **IKS raises Group Solidarity and Strengths**

Rural people insist to envisage IKS as a complete cultural recipe of survival. Their stance over it held that their traditional life patterns and farming practices were

actually rooted in their culture. As ‘culture is learned and passed onto the next generations’ similarly the indigenous knowledge was received from elders. It was put into practice by the intermediary generation and after sometime it was handed over to the upcoming generation after an update. The cultural recipe of people thus enhanced group solidarity. The people used to present and demonstrate their unity in social ceremonies and other socio-religious events and occasions. The caste bond and extended families were also a great source of social unity. This group solidarity was people’s social strength on one hand and an effective mean of social control on the other. This idea is supported by Conrad (1995) who cited Rieder; Horwitz and Laberge that ‘close social ties constitute not only the cornerstone of all social reaction but also a choice that should be favored in developing control policies and measures’ (Conrad, 1995). Traditional Knowledge System and its practices have its own uniqueness (though not well documented) but it is the community’s knowledge basing on the continuous experimentation of the inhabitants with their surrounding natural and environmental realms. In this respect UNESCO states:

*The dominance of the western knowledge system has largely led to a prevailing situation in which indigenous knowledge is ignored and neglected.... over many centuries, human beings have been producing knowledge and strategies enabling them to survive in a balanced relation with their natural and social environment.*

### **IKS is bearer of Bottom-Up Approach**

Unlike the government owned project themes and implementation plans, IKS is something that is generated locally and administered by the local people with Bottom-Up approach. An interesting plea shared by respondents was that “*We do have something unique with us; it is therefore you have come to us and trying to find it out.*” It is basically the methodological error and weakness of the implementation plan that whenever the government tries to imply ‘People Centered Approach’ in the process of rural development it is usually high jacked by the development agencies and so-called intelligentsia. Chambers (1990) stated that: *As we enter the 1990s, the dominant paradigm of development expressed by normal professionals and implemented through normal bureaucracy is still top-down and center-outwards.*

Moreover it is also confirmed by Waters-Bayer (1987):

“Attitudes generated by the top-down transfer of technology (TOT)

paradigm have precluded learning indigenous knowledge of farmers. Reasons for non-adoption of innovations resulting from the conventional TOT paradigm have been attributed to outsider's stereotypes of small-scale farmers (e.g., ignorance, laziness, conservatism) or an inadequate delivery system (e.g., poor extension service, lack of credit facilities) but seldom to the characteristics of the innovations themselves”.

Probably the best thing about IKS is that it is the intellectual property of the local people in which they are its owners and practitioners. They with the passage of time update it without relying on any external source. It is beneficial because people use their own resources and devise methods of their use without harming or threatening the natural habitat. Rajasekaran (1993) cites Haverkort (1991), that: Indigenous knowledge is the actual knowledge of a given population that reflects the experiences based on traditions and includes more recent experiences with modern technologies. Moreover,

*“These people are well informed about their own situations, their resources, what works and doesn't work, and how one change impacts other parts of their system”* (Butler and Waud, 1990).

Rural folks compared that there are two types of thinking predominant in the world over centuries. Firstly, the ideologies in which humans occupy the central place, secondly, the exploitative view (as in capitalistic thinking) which is overwhelming at the cost of humans. People were of the standpoint that mechanization of agriculture is capitalistic in its approach. It has nothing to do with the humans and the human feelings of sacrifice and reciprocity. It is only about material benefits, comforts and gains through the profit-loss margin. They reported that IKS was based on people centered approach therefore the concept of sacrifice, reciprocity and other related items were dominant in during pre-modernization as compared to today's world. Similarly, they said that whenever people from cities with new ideas approached them (like it happened in the past developmental experiences in the village), villagers were given the impression of these ‘development advocating people’ as well experienced and educated who could only solve all problems. But the words and promises of the ‘development champions’ got never fulfilled. Reijntjes et al., (1992) have also observed and written in favor of the argument given above by suggesting that:

“Certain inherent limitations in IKS have strengthened the attitudes of outsiders that IKS are ‘primitive’, ‘unproductive’ and ‘irrelevant’: (1) IKS are of oral in nature; (2) IKS are not formally recorded and documented; (3) Each individual possesses only a part of the community's IKS; (4) IKS may be implicit within local people's practices, actions, and reactions, rather than a conscious resource”

Rajasekaran (1993) has rightly observed which can be quoted in reference to study area's previous experiences with development experts in three of the main developmental projects launched in the village:

1. Agricultural Researchers do not investigate the impact of the technologies they develop. They feel their responsibility ends once the technologies are released to the extension system;
2. Agricultural Extension personnel perceive that dissemination of technologies to farmers is their only responsibility. Once the technologies are disseminated to the farmers, they are completely satisfied with their jobs; and
3. Even some enthusiastic extension workers who have tried to bring feedback from the farmers are not encouraged either by extension administrators or researchers.

### **IKS promotes Self Reliance and Cost Effectiveness**

As matter of fact, IKS is typical of any particular culture, environment and geographical area therefore IKS always evolve techniques and ideas that are based locally and could be regenerated through employing the local resources. In this regard, Warren and Rajasekaran (1993) state that:

*“There is much to be learned from the IK systems of local people. If we are to move towards interactive technology development from the conventional transfer of technology approach, it is feasible, efficient, and cost-effective to learn from the village-level experts”.*

They further emphasize that:

*“Validating farmers' experiments creates an environment of respect for local people and village-level extension workers thus leading to their increased participation and*

*empowerment”.*

Main emphasis of the argument given by people was that IKS based technologies were locally based and evolved while consuming local resources therefore these were much cost effective and affordable as compared to the expensive and unsustainable technologies and techniques that are imported from the cities and even abroad.

### **Strategy of Recycling of Resources especially Natural Resources**

Reijntjes et al, (1992) provide evidence in the favor of the argument by stating: *Livestock form an important component of this agro-forestry system - particularly poultry, but also sheep freely grazing or fenced in sheds and fed with forage gathered from the vegetation. The animals have an important role in nutrient recycling. Also fish ponds are common and the fish are fed with animal and human wastes.*

They further quote Michon (et al. 1983) who are of the view that:

*“Natural processes of cycling water and organic matter are maintained; dead leaves and twigs are left to decompose, keeping a continual litter layer and humus through which nutrients are recycled. These forms of recycling are sufficient to maintain soil fertility without the use of chemical fertilizers”.*

### **IKS is based on Utility not Leisure**

IK is an integrated system that was developed and continually refined by the forefathers as a parameter of survival rather than just a past time. The necessity and the cultural worth are therefore established through the people’s attitude under which they resist their unique life style to modify. Like any other thing, people use to develop their affiliations with their knowledge based system. There are many scholars who through their research works have supported the current version on the utility of IKS. Pretty and Sandbrook (1991) state that: *Indigenous knowledge systems are tuned to the needs of local people and the quality and quantity of available resources.*

The people pertain to various cultural norms, social roles, or physical conditions. Their efficiency lies in the capacity to adapt to changing circumstances. According to Norgaard (1984):

*“Only very rarely, however, is traditional knowledge treated as knowledge per se in the mainstream of the agricultural and development and environmental management literature, as knowledge that contributes to our understanding of agricultural production and the maintenance and use of environmental systems”.*

### **IKS is not Stagnant rather it is updated continuously**

IKS is something which was originated by the indigenous people while keeping their survival issues in mind. Culture and IKS are both changing and not stagnant in their very nature. It is therefore IKS as a basic survival mechanism updated itself with the passage of time so that it may remain in use as a remedy to cope with the challenges posed by the nature over time. World Bank (2006) in this respect accepts this very aspect of IKS by stating: *Significant contributions to global knowledge have*

*“originated from indigenous people. Indigenous knowledge is developed and adapted continuously to gradually changing environments and passed down from generation to generation and closely interwoven with people’s cultural values”.*

The argument under reference is backed by the finding of Warren and Rajasekaran (1993) who are of the view that:

“IK is a valuable national resource: its systems are dynamic, never static, and are continually influenced by internal creativity and experimentation as well as by contact with external systems. IK helps to assure that the end users of specific agricultural development projects are involved in developing technologies appropriate to their needs”.

Indigenous knowledge is dynamic, changing through indigenous mechanisms of creativity and innovativeness as well as through contact with other local and international knowledge systems (Warren, 1991, a&b).

### **IKS is as scientific as any other System**

Local peoples’ knowledge is also based on ideologies developed by them in relation to their particular natural resources and physical realities. Moreover, like any other complex science or branch of organized information system, IKS does have its own local terminologies. People of any particular area develop their understanding in a scientific *“Cause and Effect relationship”*. All that needed is to understand the IK in

its own particular cultural settings. Reijntjes et al, (1992) also provide a feature of IKS as scientific as any other system: *In their small plots, often less than 0.1 ha, Javanese peasants mix a large number of different plant species. Within one village, up to 250 different species of diverse biological types may be grown: annual herbs, perennial herbaceous plants, climbing vines, creeping plants, shrubs and trees ranging from 10 to 35 m in height.*

### **Can IKS be a Solution?**

This was a question that remained alarming most often during the time when the research chore was in swing. The views were so diverse due to which the research was oft time confused. We must acknowledge the positive role of respondents in village who helped us in solving this genuine riddle that kept on knocking the back stage of our minds. Also keeping in view the statements of Garry Jacobs et al (1997) in mind, we feel revitalization of IKS as need of the hour in order to have a 'Sustainable Development Model' (SDM) in Pakistan. We contend that more intensive and carefully conducted researches are need of the hour to validate the traditional perceptions on development as well as making the traditional practices according to the new world standards and prerequisites. The 'Indigenous Model of Development' (IDM) was conceived on basis of the respondents' views that largely attempts to incorporate the development perception from a utilitarian point of view.

IMD defines social change as primarily source of concern regarding the level of people's expectation and aspirations. Currently no model serves the same purpose in Pakistani Punjab. An urge to improve quality of life and infra structure, local model of development is best suited to people's expectations if we keep in mind the flexible nature of IMD. As stated, IMD is governed by the local people who devise the parameters of the activity therefore it is also reflective of the local people's priorities. It wholly recognizes the importance of people's willingness to participate and refer to undertake the development activities according to the way people define the patterns for change. So it is basically a group of organized activities that are related to the community members therefore being a process thoroughly central and focused on the people brings people closer for a collective action where the people know that their views and contribution would be honored.

Change and needs perceived by the people themselves through participatory development approach would result in a more meaningful fashion and being

receptive of change. IMD also offers people with something they can relate themselves as a product of their ancestors rather than to bring something alien to their life, cultural institutions and societal norms. IMD is exclusively evolved from people of the community therefore the participation of the members also validates its status of approval from the people. It entirely consumes local resources due to which a sense of independence is echoed among the people. In addition, it sets the goals and directions of development process with an emphasis on the participation and through the real representative of the populations. Meanwhile, the experts, development agencies, government can play an intermediary role while giving the real beneficiaries a pivotal role. Unlike today's development themes and exercises IMD is a continuous process where the innovators, executing agency, monitors, and evaluators are the community members themselves therefore they have a strong sense of ownership among them. IK recognizes development as a complex whole instead of just relying on enhancing the economic scores. This local model believes and makes sure that all ethical, social, cultural and environmental facets of development are properly accommodated and given due importance. IK is a set of practices that not only contributes in the economic domain but also are connected to the rest of the other social institutions which are also connected to economic domain. The respondents replied that though the crop did not bring the amount of grains (as that of modern and commercial agriculture practices) but it also embrace minimal production issues for which a subsistence level farmer could even think of investing more financial resources. Similarly, the traditional life mode was less formal and complicated due to which the life was easy and was the one where people had time to sit with the elders and learn from them and also had the opportunity to strengthen their friendship ties.

IMD advocates the reliance on the internal resources (human and natural) if the development has to be sought on sustainable basis. It is so because reliance on foreign resources may not ensure complete self reliance. It is basically why IMD devises technologies and ideas that are rooted in the local culture. By nature IK is unique to the place where it is evolved therefore it is very natural that IKS and its methodology along with its central theme would also be rooted in the local culture. Similarly, Indigenous methods suggested for sustainable development are also dependent upon the consumption of local resources from within the society which is importantly the feature of sustainability. IMD refers to the reality that if the development of the rural areas and populations has to be achieved then the same

must be administered planned, monitored and evaluated by people themselves. The role of local people must be as planners, managers and administrators rather than just to be called recipients. The external forces and actors like government, policy makers, and development agencies may facilitate them as neutral observers helping these local communities through positive and unbiased criticism. The Local Knowledge Paradigm (LKP) believes that innovations and innovative ideas may originate from any corner of the society therefore a social environment be created where anyone who has an opinion about a particular item of the society may share it openly without the fear of social ridicule. Unlike the people who believe that IKS is only depending on the older traditions and resistant to the new ideas.

Unlike the Western Traditional Development Paradigm (TDP) during decades of 1950s and 1960s, IMD also encourages that the change process be supervised by the local leader called “*Wadda*” (Elder). The external and bureaucratic agents of change of multifunctional village workers must be replaced by the traditional leaders who were source of inspiration for the rural communities. The traditional leadership concept was embedded in a person who led the community in the light of the traditional wisdom that largely featured the cultural fashions unlike the alternate British *Numberdari* system that was merely erected to collect the revenue from the farming communities and to increase and promote the colonial hegemonic control over the rural masses. A traditional leader won social acceptance and obedience because of the vision, ability to guide the people and character to convince people for a collective action. Having discussed the argument regarding the effectiveness of the IKS, the work of Warren (1992) seems relevant when he comments that:

“Indigenous knowledge, particularly in the African context, has long been ignored and maligned by outsiders. Today, however, a growing number of African governments and international development agencies are recognizing that local-level knowledge and organizations provide the foundation for participatory approaches to development that are both cost-effective and sustainable”.

The statement made by Warren is validated in Pakistani Punjab’s context where it is still ignored and taken as something being the last resort that only suits laggards and conservative sections of rural society. The picture conveys the message that getting hold of technology is something that is translated into the modern life style and somebody in the mainstream of the development. On the other hand, traditional

methods and their use is termed as outdated especially when people are found to be saying that my “*father used to do this and say this*” or “*my mother used to do this or say that*”. It is only during this gradual process that IK has been recognized as an effective methodology for prosperity even in current day’s scenario. One of respondents commented that IK related practices were developed in entire harmony with the nature and its conditions whereas the current day’s commercial and market oriented agriculture and other related practices are based on the notion of exploiting the natural resources from a profit making point of view. Similarly, Warren (1992), Slikkerveer (1989) and Jackson (1987) also acknowledge the long biased attitude toward the IKS by stating:

*“The role of nineteenth century colonialism and social science in ignoring and sometimes maligning indigenous knowledge has been well documented”*(Warren 1989; Slikkerveer 1989; Jackson 1987).

Having analyzed the conventional developmental approaches and the practical experience of the developmental efforts in the village signifies the importance of IKS to be revitalized so that it may start operating as a development alternative for the people otherwise the assumption of continued reliance on foreign development models and aid may seem true.

### **Revitalizing IKS: Some Methodological Considerations**

Rural development and mass uplift of the rural population occupies a ventral place in all efforts for modernization and development in predominantly agricultural and rural countries like Pakistan. Ever since the inception of Pakistan, the policy makers and planners have devoted considerable attention and resources to mobilize the rural people for the task of development and modernization, to create an awareness and urge for change and improvement, to foster a spirit of cooperation, to remove the antipathy and distrust of public functionaries, and to prepare them for accepting and adopting new ideas, methods and techniques in the fields of agriculture, health, and education. The research is of the view that past programs and approaches to rural development efforts in Pakistan were basically inspired from the Western models. These were mental constructs of certain Western writers in field of comparative politics and development administration that had been implemented to suit political exigencies of the past bureaucratic regimes in Pakistan. For instance, a major bias lied in these approaches was that the rural population is completely ignorant,

traditional in outlook, devoid of any urge for improvement or development, and incapable of perceiving and articulating its developmental needs. The entire reliance was therefore on external stimuli and bureaucratic structures.

The external and enlightened agent of change was assigned the pivotal role in the process of rural development. The scholars also put their conviction that human development is a process which is different from merely increase in economic growth. It is widely evident from the diverse nature of studies that high rate of economic growth is not an indicator of human development in the societies especially in the developing countries. Garry Jacobs et al (1997) therefore contend the need of a comprehensive and human centered approach which could only ensure the human development process possibly seeming to bring results. That is to say that after the trial of numerous development approaches in Pakistan, the end result was that benefits were enjoyed by the people in the higher quartile of the society or the people with great social influence while leaving the poor stratum of the society behind. It is largely because the population in the lower and lower middle class of society were doubtful of the people advocating for the development for the people and their communities. In such scenario, revival of IK could act easy to get accessed and comprehended and further rooted in indigenous culture with which people could relate themselves too. Though, it was noticed that people usually do not understand when one says 'revival of IKS'. This is because of the ignorance of people from cultural heritage due to influx of Western ideas and technologies. People often feared that once IK is revitalized, then they would have to abandon their current life styles therefore they did not pay attention towards the latent benefits of IKS. But the aged people are well aware of utilities and therefore they were in position to rectify status of IK as an alternative for development in community. So far as IK is concerned, it is by nature a democratic way of administering developmental efforts with least formal legalities. It effectively involves community members because of reason that it consumes mostly the local resources for which local community members are supposed to contribute for remedial measures therefore it is naturally a process that encourages and is dependent on involvement of people. In this regard, Garry Jacobs et al (1997) further comment that:

*“A theory of development needs to begin not with goals and policies to promote development, but with knowledge of the essential nature and characteristics of development itself, for development is not a set of policies or programs or results. It is a process. This process has been taking place in societies since time*

*immemorial*".

### **Ethnocentrism towards Rural People**

Anwar Siddiqui (1979) is of the view that past developmental approaches to rural development in Pakistan were based on the conceptualization of social scientists and writers in the field of social change and development administration who developed their theories and approaches essentially from their own experiences in the West. Some lip service has been paid to study and analysis of the modernization process in the developing countries and to relate their theories with the socio-cultural environment of these countries. But essentially the experiences and achievements of the modern West provided them a framework on the basis of which goals and objectives of modernization were set up for the developing countries, and strategies and programs for achieving these objectives are formulated. A keen perusal of the points made in the lines above can safely lead to the conclusion that local populations of underdeveloped countries are graded with a bias towards communities. There is a kind of effort made by the proponents of Western world who argue that development is only possible with meaningful adoption of practices suggested by the Western developmental models.

### **Strategies for Rural Development**

Major emphasis was given to external stimuli for social change and modernization. J.A. Ponsioen (1968) for example claims that development is not a spontaneous process, and it takes place under the persistent and conscious interference with societies by the development agencies. Prominent among writers was Professor Ralph Braibanti (1966), who wrote extensively on the role of bureaucracy in Pakistan. He argues that in the social context of Pakistan, bureaucracy occupies an inordinately strong position relative to other political organs; and that it is inevitable, even desirable. Milton J. Esman (1963) also acknowledged the dominant power position of the bureaucracy in developing areas. Bernard E. Brown (1962) also advocated the strengthening of executive branch for the task of achieving development and suggests the provision of built in check and balances for the control of bureaucracy eliminating any need for external political controls. Eisenstadt (1964) referred to the attempts of the political elite and bureaucracy to direct and control all social developments of the country. Unlike the power holder in the village while following the national lines tend to be power hungry and keep on

establishing their relations with power institutions and its players in order to enhance their social status and inevitable role within their area of social influence. The general public is found to be repelling the government officials as exploiters and vampires. S. C. Dube (1967) has rightly observed that:

*“Historically in Indo-Pakistan subcontinent, bureaucracy has been an instrument of political suppression and control and exploitation. Police, magistracy, revenue and irrigation department have been symbols of political control and economic exploitation of the rural masses’.*

It is therefore the development agencies and agents of change are found generally to be complaining the distrust and non-listening attitude from rural people. This mistrust only be overcome with the help of having an organization or a governmental move in which IKS is revitalized. The revitalization process will be ideal when these people will be given primary importance and their fears would be addressed in ways that suit the cultural and social norms of rural communities. Concept of “agents of change” holds a central place in literature on social change and modernization. The agent is perceived as an art of the bureaucratic structures established for development. He is an innovator or carrier of innovative ideas. He may be an expert, a social worker. But his function is to gain acceptance and confidence of the people to persuade them to accept new ideas, methods, and techniques to involve them in the process of change. Nieuwenhuijze (1969) referred to this emphasis on a bureaucratic change agent and the assumption of a subject object dichotomy between agent on one hand and society, community or group on the other. Conventionally, role of change has been and still is assigned to the change agents. Problems with this class is that they are even external to the environment only educated in the urban environments fail to understand the technicalities of social change process. The new set of behaviors that they encounter in the rural areas are often therefore termed to be fatalist and resistant to change. This would be said that this analysis of change agencies is particular of low in vision and professional approach in dealing with the people of rural areas. The change agents are expected to innovate and carry on innovative ideas and methods to rural people to persuade them about wisdom and usefulness of these ideas and methods to involve them in process of change and to introduce change irrespective of the level and quality of this involvement.

In the literature one can also find that economic development was graded as the

supreme of all. The political and social institutions' roles and functions were under rated and went without recognition of the policy makers. Braibanti(1966) believes that popular participation in the political process in the developing countries becomes a "less effective vehicle for the attainment of a just society". He qualifies popular participation with the quality of such participation providing rationale for such concept as "guided democracy" evolved in many developing countries like Pakistan. Similarly, Eisenstadt (1964) also draws attention to need for participation and involvement of the rural population in the process of development that is often ignored in the entire developmental effort conducted in Pakistan. Bureaucratically controlled pseudo participative groups and institutions are also established. All these efforts however result in either negative participation or passive participation and indifference. Arther H. Niehoff (1966) in his work discusses that "*without initial participation by the recipients change cannot take place*". He cautions against the passive participation since the recipients will make little efforts to continue the projects when the change agent leave.

Since the development needs of rural people were to be gauged by the so called enlightened bureaucrats, the goals and objectives were to be defined by them, political participation and political control of the development process was viewed as detrimental to the process of change the obvious recourse was to establish new bureaucratic structures for rural development. The existing instrument of local government was disregarded, made ineffective and in some cases completely demolished. Different types of village aid, and community development organizations were set up. Under the Basic Democracies system of Ayub Khan, Local Government System of Ziaul Haq and Devolution Plan of Musharaf government, an attempt was made to reshape the local government institutions for the purposes of rural development and mass involvement in that process but the complete domination and control of these institutions by the bureaucracy at district, provincial and national levels, local power holders that were the result of British colonial era did not bring the desired response.

While seeing the result of development efforts in Pakistan and the currently recently experimented 'City Government System' through 'Devolution of Power' whose conceptual framework was theoretically unsound. It did not take into account the history lessons, the cultural scenario and the socio-political environment of Pakistan. The underlying assumptions of all these conceptual frameworks take only a

perfunctory view of the society. The crux of developmental approaches described in lines above help conclude that these models could only be feasible in the environments and geographical settings where these were developed and tested for the potential result. The researchers found after survey of literature that following were the weaknesses of these development paradigms:

**Manipulation of Public Offices**

It has been an unlucky tradition in Pakistan that governments tend to manipulate public offices into their vested interests due to which these offices and office bearers become instruments in the hands of power holders. During this whole process, actual aim, purpose and the target population is totally vanished. Lucian Pye (1963) also argues that: *The greatest problem in nation building is how to relate the administrative and authoritative structures of government to political forces within the transitional societies.*

Similarly Henry Frank Goodnow (year unknown) from his experience in Pakistan and on the basis of his study of the civil Services in Pakistan concludes that:

*“The higher bureaucracy exerts such predominant influence as to make the climate unfavorable for the development of democratic institutions”.*

**Low Capacity for Innovation and Change**

The development agents and agencies by their very nature are totally unaware of the process of innovation that suits rural areas. The same behavioral response is interpreted as conservatism by these technical staff. Dube (1967) therefore contends that:

*“The bureaucracy resists innovations in its structural arrangement, and that, in several respects the hard core of the bureaucratic culture has been unyielding and has offered great resistance to innovation”*(Dube:1967).

The development planners and executers have a legitimate and useful role to play in the process of development. Its basic function is to implement and facilitate. Unfortunately, it was seen in the developmental projects of village, project officials became a party in the whole process due to which many neutral participants and potential beneficiaries tend to remain indifferent in the whole process. The very nature of development process and its implementation has to be dealt with very

much responsible code of conduct because it interplays with historical, social, cultural, moral values. A person or a development agency ignorant of these factors cannot perform this role effectively rather they later on become a source of putting fuel to the element of violence in rural society.

## **SUMMARY AND CONCLUSION**

It is customary in Pakistan that with advent of new idea in any field there raises a group of people blaming the old methods and putting all burdens of bad governance and low performance to the previously practiced methods and ideas. It is necessary to understand that every model has its own limitations and benefits. It is must that policy makers and practitioners unfold their biases toward these important factors and mutually agree on feasible approaches that promise comprehensive development in the country. The paper has presented the views of village people as well as scholastic views in favor to advocate the convictions in order to highlight effectiveness of IKS as a development alternative for country. IKS is low-cost in financial terms and promoter of involving local populations with no potential aims to raise conflicts in rural life. The research successfully presents the case to discuss IKS as something that evolved from native soil and carries historical affiliations of people with it. The only need is to clearly assess the needs of community where a specific project is going to be launched and to well anticipate the long term effects of schemes. Unfortunately, the research segment is undervalued in the country especially in rural areas due to which heavily funded programs are launched with taking into considerations the technical aspects while ignoring other social, economic, cultural, environmental, ecological, geographical, and political factors.

The Indigenous Model of Development (IMD) and other related perceptions of agriculture clearly indicated that IKS is something born out of the centuries old relationship of populations with their environment, soil and land. The farmers understand the utility of adopting specific locally evolved methods to fix their issues in agricultural sector. The beauty of IKS is that it gives rise to methods that are developed locally and consume locally available resources. It is therefore the solutions are also local due to which overemphasis on finances is reduced to a considerable extent. As emphasized by scholars cited above also highlights that Community Knowledge or indigenous knowledge as scientific as some other discipline. Therefore pleas in favor of IKS as sustainable solution for development of rural areas go stronger. It is because people still relate themselves to their

prosperous traditional practices and customs. It is equally viable that IKS can still be used for promoting participation in developmental process of rural areas because of its democratic nature. It is intended to point out the incomprehensiveness of western approach of development that underscores the importance of internal stimuli as vehicle for rural development. As against the imposition of new and cumbersome bureaucratic structures for the tack of rural development, we argue for strengthening the IKS institutions at the administrative level for sustainable rural development. The new strategy for rural development in Pakistan must therefore be comprehensive and based on the needs and aspirations of the rural people. It must recognize the importance of indigenous stimuli for modernization and development. It should assign a key role to the progress of political participation in creating an inner urge for development in raising levels of expectation if the rural people in developing indigenous leadership for articulating these interests and in providing popularly controlled IKS institutions for realizing their aspiration.

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