



for sustainable  
agriculture and  
regenerating  
rural economies

# Personalising Development: Policies, Processes and Institutions for Sustainable Rural Livelihoods

Findings  
from the  
Pakistan  
case study



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Dr. Javed Ahmed  
Dr. Shahid Zia  
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## A PAKISTAN CASE STUDY

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A country case study report for: **Policies that Work for Sustainable  
Agriculture and Regenerating Rural Economies**

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### **Policies that work for sustainable agriculture and regenerating rural economies series**

There are enough examples world-wide to suggest that agriculture which is pro-sustainability and pro-people is working. We now understand the concept of 'sustainable' agriculture is not confined within the farm boundary, but has strong links (and a potential to be a dynamic force within) a wider rural economy. So, 'sustainable agriculture' not only contributes to greater agricultural production, but also environmental regeneration and local economic development.

IIED's Sustainable Agriculture and Rural Livelihoods Programme has undertaken collaborative research to look at 'Policies that work for sustainable agriculture and regenerating rural economies'. The overall objective of this research is to understand the policy contexts and instruments that can promote sustainable agriculture and social change. This has been done in high, medium and low income countries in both the South and the North. 'Success stories' have been identified and the policy environment that has permitted these to emerge has been investigated. Are there lessons we can learn from these 'islands of sustainability' that will help us turn islands into continents?

This paper is one of a series of reports from the Policies that Work project, which give the research and methodological background and country specific findings. *The views and opinions reflected in this material do not necessarily reflect those of IIED, its partners or the project donors.*

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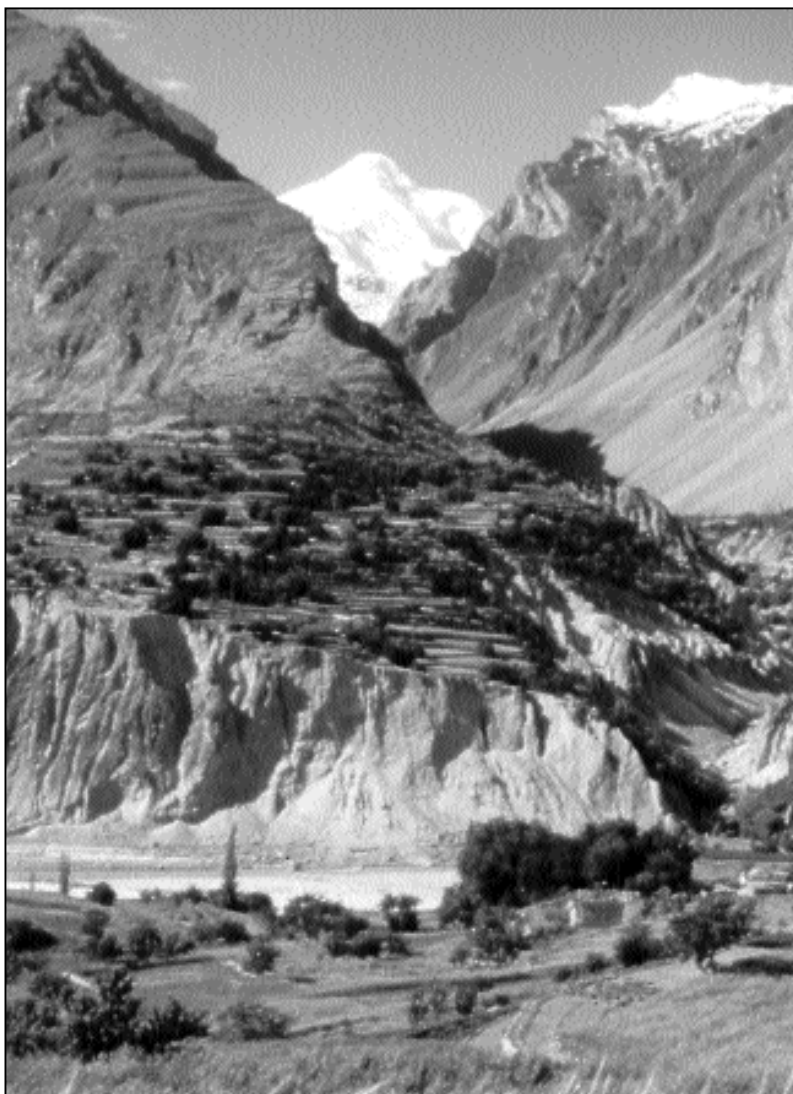


## List of Acronyms and Abbreviations

ADBP	Agriculture Development Bank of Pakistan
AKES	Aga Khan Educational Services
AKHS	Aga Khan Health Services
AKRSP	Aga Khan Rural Support Programme
APCOM	Agricultural Prices Commission
APTMA	All Pakistan Textile Mills Association
BAMA	Baltistan Agricultural Marketing Association
BRSP	Baluchistan Rural Support Programme
CEC	Cotton Export Corporation
CIMMYT	International Wheat and Maize Institute
FAO	Food and Agriculture Organisation
FATA	Federally Administered Tribal Areas
FGs	Farmer Groups
FIGs	Farmers Interest Groups
FSRE	Farming Systems Research and Extension
GoP	Government of Pakistan
HYVs	High Yielding Varieties
IIED	International Institute for Environment and Development
IPM	Integrated Pest Management
IPNS	Integrated Plant Nutrition System
IRDP	Integrated Rural Development Programme
IRRI	International Rice Research Institute
ISI	Import Substitution Industrialisation
IUCN	International Union for Conservation of Nature and Natural Resources
KIDP	Kalam Integrated Development Project
LWUP	Land and Water Use Programme
MFVDP	Malakand Fruit and Vegetable Development Project
NGOs	Non-governmental Organisations
NWFP	North West Frontier Province
PATA	Provincially Administrated Tribal Areas
PPI	Productive Physical Infrastructure
PTW-SARL	Policies That Work for Sustainable Agriculture and Regenerating Rural Livelihoods
RECP	Rice Export Corporation of Pakistan
RRA	Rapid Rural Appraisal
SARL	Sustainable Agriculture-based Rural Livelihoods
SOEs	State Owned Enterprises
Sq km	Square kilometre
SRSC	Sarhad Rural Support Corporation
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VOs	Village Organisations
WAPDA	Water and Power Development Authority
WIDP	Women in Development Programme
WOs	Women's Organisations
WUG	Water Users Group

### *Exchange Rate*

February 2000: 1US\$ = 51.88 Pakistan Rupees



Irrigated terraces, Gilgit (Photo: Steve Bass)

# Chapter 1: Policies that Work for Sustainable Agriculture and Regenerated Rural Livelihoods in Pakistan

## 1.1 The Policy Context

At the dawn of a new millennium, after its Golden Jubilee in 1997, Pakistan's development future hangs in the balance. The struggle to keep average agricultural growth of 3.3 percent ahead of annual population growth of 3.0 percent – for food security and foreign exchange earnings requirements – is becoming increasingly difficult. On the one hand, constraints on land from maximum acreage being under cultivation and also the demand for land by the growing population puts Pakistani agriculture in a precarious position. On the other hand, land holding problems and their fragmentation, security of tenure and rents paid by the sharecropping tenants are also taking their toll. Furthermore, limited access to knowledge about technology, credit, storage facilities, and transportation infrastructures have limited small farmers' greater participation in the national economy. The present operation of the public extension services, distribution of farm credit through the nationalised banks, and of import and manufacture of large-size tractors in the last two decades are prime examples of the fact that the interests of small farmers were not given due attention. Finally, increasing waterlogging, salinity, soil erosion, loss of soil fertility, incidence of diseases and pests as well as loss of biodiversity signal serious environmental consequences for future agricultural development, and hence, future generations of Pakistanis.

The government, for its part, has initiated an ambitious economic liberalisation programme in terms of providing a healthy environment for foreign investment. The state is, however, confronted with crippling financial insolvency and eroding legitimacy of its organs: legislative,

executive and judiciary. To make things worse, declining foreign exchange reserves previously squandered on imports of food to meet the demands of the urban population, and the import of cotton for the dynamic textile industry, have laid a heavy burden on the country's plan to improve the rapidly expanding urban and industrial sector. Civil society, for its part is confronted with social alienation and fragmentation. Experts believe the only response to this challenge is to move towards democratisation and improved *governance*. The role of the state in this new political system is being redefined to provide an enabling environment through institutional, legal and policy reform. These changes have profound implications and challenges for the business as usual development approach in Pakistan.

The agricultural policy-making process in Pakistan, because of its macro-economic implications, has been complex, fragmented, concentrated on a few crops that comprise major exports and imports, and not inclusive of the vast majority who subsist off small land holdings. In its macro-economic context it has been unable to reach to the grassroots and touch the poverty and potential at the micro level. Some of Pakistan's political regimes have made efforts through the Ministry of Food and Agriculture to introduce policy documents but they have been limited in implementation because of the multitude of actors and players involved, the influence of powerful groups, and the existing policies and institutions in the sector.

And yet this is a time of remarkable *change* and *upheaval*. A handful of NGOs and Donor Projects, employing a *personalised*<sup>1</sup> approach to development with rural communities, have been able to demonstrate that there is tremendous potential in developing agriculture among the rural poor. These we have termed the 'islands of success'.

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<sup>1</sup> *Personalising* is the recognition that the majority of rural inhabitants have been bypassed by policies at the national level. In order for development process to be more inclusive, we need to be able to differentiate development priorities according to such factors as cultural and environmental contexts, local politics and social settings, i.e., local reality does matter. However, it is equally important to recognise the need for policy narratives at the national level, so the term *Personalising Development* allows for challenges to status quo policy and hence gives room for wider acceptability and applicability.

The challenge now is to come up with an approach that takes into account the multiple realities, levels and factors – including economic, environmental, cultural, social and institutional – impacting rural Pakistan, and to try to scale up from these successful examples. What is required is that agricultural development takes a central role in the development of Pakistan. Yet in today's global context – globalisation, market liberalisation, decentralisation, structural adjustment programmes – governments are constantly faced with new challenges. Thus the quest to personalise policy so that it is inclusive of the vast groups outside the purview of agriculture and rural development policy needs to be approached with care. We believe that Policies That Work for Sustainable Agriculture and Regenerating Rural Livelihoods (PTW SARL) is a framework and process that can lead to a re-evaluation of the agricultural sector and give direction to a new approach.

The PTW SARL framework, contrary to common practice, does not singularly try to evaluate the effects of major policies in the sector. Essentially, it takes a few good examples and attempts to trace back the causes that led to success, and infer policies and elucidate wider factors that can actually work. So instead of “cause and effect” strategy, the study looks at the desirable “effects” and then traces the “causes” to inform policy on what is needed to reach that effect.

Thus, the approach enables us to gain insights into the problems encountered, including gaps in policy-making and wider factors, in an attempt to put the pieces together. It has far-reaching implications for the implementation part of policy-making, which would have been very difficult to pinpoint, had we taken the traditional route to policy analysis. The study highlights the limitations on the institutional side, the policy-making process and the potential that exists. In fact, the study distinctly attracts attention to the ‘Institutions and Processes that Work’ in the context of Pakistan.

A study based on a few examples, however, has its limitations in that it does not provide all the answers, but in many areas that are pertinent and yet outside the purview of current agriculture policy, it definitely

helped us to ask better questions. The study takes the policy debate in Pakistan out of prices and provincial quotas into the realm of the multifarious issues that the sector needs to address in the future.

## 1.2 Introduction to the Study

In today's world economies, the emphasis of development planning has shifted towards the simultaneous achievement of three major goals (Vosti and Reardon, 1997; Garretti, 1998). Firstly, in the face of growing population and persisting poverty, there is the need to ensure growth of national income over and above population growth. Secondly, the fruits of growth must be widely shared for a frontal attack on social inequalities and endemic poverty. Finally, the growth process should inevitably be sustainable in terms of environmental considerations, self-reliance and domestic resource conservation. Because of low incomes, high poverty levels and precarious resource endowment, the attainment of these goals becomes highly challenging in developing countries and demands that government policies be devised most appropriately, carefully and wisely to ensure a self-propagating and sustainable process of economic development.

It must be realised, however, that sustainability of economic development in a developing country like Pakistan is heavily dependent on sustainable agricultural development, as agriculture is a sector of major proportions. For example, although agriculture's current contribution to national income does not exceed 25 percent, it still is the largest productive sector of Pakistan's economy. Apart from being the cheapest food supply for the millions of poor Pakistanis, it also provides an assured livelihood to nearly 50 percent of the country's population. It remains the gold mine of foreign exchange as almost the entire exportable surplus in the form of primary or processed products originates from agriculture. Finally, there is little doubt that agriculture is an exclusive supplier of raw materials to, and the largest buyer of goods and services from, the emerging industrial sectors of the national economy (Pakistan, 1997).

Given this background and context, there is a clear need to review the achievements of Pakistan's agriculture, to look into the appropriateness of various policies in terms of sustainable development of agriculture and the health of the rural economy. To accomplish this task, IUCN-Pakistan has collaborated with the Sustainable Development Policy Institute (SDPI) and the Pakistan Institute for Development Economics (PIDE), and with active support and input from NGOs, projects and Pakistan government departments. The Pakistan case study is part of an international collaborative research project entitled *Policies That Work for Sustainable Agriculture and Regenerated Rural Economies* (PTW-SARL), coordinated by the Sustainable Agriculture Programme of the International Institute for Environment and Development (IIED). The British Department for International Development (DFID), the Swedish International Development Cooperation Agency (SIDA), the Swiss Development Corporation (SDC) and Danish International Development Assistance (DANIDA) have funded this project. Ten countries have taken part in this project, namely Australia, Bolivia, Brazil, Kenya, India, Pakistan, Senegal, South Africa, Thailand and the United Kingdom. In all countries, multi-disciplinary teams drawn from local institutions have carried out the research.

This paper is structured around three main themes. First, the aim is to review the achievements of Pakistan's agriculture and rural development policies from a macro-economic perspective and their relationship to sustainable agriculture-based rural livelihoods. Following the overview chapters 1 and 2, and chapter 3 on the conceptual framework and methodology, this paper discusses Pakistan's experience in sustainable agricultural and rural development in chapter 4. Moreover, an attempt has been made in chapter 5 to look into the factors underlying Pakistan's historical achievements in political, social and economic development along with evolving policy and institutional issues. Second, we shift our attention to the personalising development approach. At the micro-level, Chapter 6 explores – as an introduction to sustainable agriculture-based rural livelihoods – the factors that 'created space' for the emergence of this approach in the northern mountainous areas of Pakistan. Chapter 7 then attempts to draw out core policy and

institutional elements that have contributed to success, and yet at the same time draw attention to issues that need further attention. Third, we ask questions about scale. Chapter 8, therefore attempts to bridge the gap between macro and micro-level issues, and highlights some problems we expect to encounter when we scale up. Chapter 9 summarises the conclusions and discusses alternative policy options available to Pakistan for a self-sustaining process of agricultural development and rural livelihoods.





# Chapter 2 Overview of Pakistan

## 2.1 Pakistan's Economy

Pakistan (officially the Islamic Republic of Pakistan) appeared on the world's political map as an independent country on 14 August 1947. At the time of independence, it consisted of two parts, namely East Pakistan and West Pakistan, which were separated by nearly 1500 km of Indian territory. While East Pakistan consisted of East Bengal, the greater part of Silhet district and Chittagong Hill Tracts, West Pakistan included the provinces of Baluchistan, the North West Frontier Province (NWFP), Punjab and Sindh and the princely states of Chitral, Dir, Swat, Amb, Kalat, Lasbela, Kharan, Makran, Bahawalpur and Khairpur. In response to internal political problems, however, an independent state of Bangladesh was proclaimed in East Pakistan in 1971. In addition, most of the princely states were amalgamated into neighbouring provinces. Thus today's Pakistan includes the provinces of Baluchistan, NWFP, Punjab, Sindh, the Federally Administered Tribal Areas (FATA), and the disputed territories of Azad Jammu and Kashmir (AJK).

Pakistan's political system has its roots in the parliamentary type of government, interrupted by two prolonged periods of military rule from 1957-1969 and 1977-1988. The Muslim League and the Pakistan People Party have contested elections and ruled the country from time to time. There has been little change in the basic administrative structure at local, provincial and federal levels, and officials of the civil service of Pakistan continue to run the daily affairs.

As must be clear from the latest Sectoral composition of Pakistan's economy given in Table 2.1, there is general dearth of natural and man-made resources. For example, mining and quarrying accounted only for 0.43 percent of national income in 1987-88 and the energy sector's contribution did not exceed 4.3 percent. This lack of resources has

undermined rapid development of the industrial sector, which contributed only 18.3 percent to GDP. By contrast, agriculture's share was nearly 25 percent. The other sectors like trade, transport, services, public sector and housing contributed the rest and had respective shares of 15.9, 9.9, 8.7, 6.2 and 5.7 percent.

**Table 2.1: Sectoral Contribution and Share in GDP at Constant Factor of 1980-81 for 1996-97**

<b>Sector</b>	<b>Value Added (Rs. Million)</b>	<b>Share in Total %</b>
Agriculture	141032	24.5
Mining and Quarrying	2886	0.5
Manufacturing	104161	18.1
Construction	22183	3.9
Gas and Electricity	23752	4.1
Transport, Storage and Communication	55165	9.6
Wholesale and Retail Trade	93555	16.2
Finance and Insurance	13597	2.4
Ownership of	33095	5.8
Public Administration and Defence	36719	6.4
Services	49854	8.6
<b>Gross Domestic Product</b>	<b>575,989</b>	<b>100</b>

## 2.2 Site and Physical Geography

Pakistan is an Asian country, or more precisely the westernmost country of South Asia or the Indo-Pakistan subcontinent. It is bordered to the west by Iran, to the northwest by Afghanistan, to the northeast by China, to the east by India and to the south by the Arabian Sea. More specifically, the country is located on a great landmass north of the tropic of cancer, between latitude 24° – 37° N and longitude 60° – 70° E.

Pakistan has a total geographic area of 796,000 sq km or 79.6 million hectares. The province of Baluchistan alone accounts for nearly 43.6 percent or 347,000 sq km, followed by Punjab, Sindh and NWFP with their respective shares of 25.8, 17.5 and 9.4 percent. The Federally Administered Tribal Areas including the Federal Capital, Islamabad

account for another 3.5 percent of Pakistan's total geographical area (Pakistan 1997). Topographically, Pakistan can be divided into six main regions: namely, the totally snow covered northern mountains, the sub-mountain plateau, the Indus plain, the Baluchistan plateau, the western bordering mountains and desert area. Depending on the distance and height from the sea, the climate varies from coastal to sub-tropical and tropical with extreme variations of temperature and annual precipitation. In general, minimum winter temperatures could be as low as 4°C and maximum summer temperatures as high as 40°C and the mercury could rise occasionally to such levels as 52°C. Most of the Indus plain receives less than 15 inches of annual rainfall and agriculture is not possible without artificial irrigation. Partly due to mountainous terrain and partly due to lack of irrigation water a big chunk of 33.4 million hectares of land is either not available for cultivation or is classed as cultivable waste. Leaving aside the forest area of 3.6 million hectares, Pakistan's cultivated area is nearly 21.6 million hectares and only 17.85 million hectares have irrigation facilities from various sources (Pakistan, 1998).

## 2.3 Social Setting and Geography

Pakistan falls among the low-income countries of the world but is better off than most of them in many ways. Its average per capita income in 1995-96 exceeded US\$ 460 and it had a higher income level than 35 of the listed 50 low-income countries. Among the low-income countries, Pakistan was worse off only than China and Sri Lanka in terms of purchasing power parity. With respect to the incidence of poverty, it was second to none but Sri Lanka (World Bank, 1997). This somewhat enviable position seems to be the result of Pakistan's historical record of higher growth and slower rates of inflation relative to most of the low-income countries especially in agriculture (Chaudhry, 1994; World Bank, 1997).

In terms of human and social development indicators (Tables 2.2 and 2.3), Pakistan's development position has been less enviable (Haq and Haq, 1998). Like many developing countries, Pakistan is basically a

rural economy and is densely populated. According to latest available estimates, Pakistan's population stood at 139.024 million in 1997-98. In spite of mushrooming growth of urban centres, the rural population exceeded 98.96 million or 71.2 percent of total population during the same period. At the above population, the average population density in Pakistan would roughly work out to 1,750 persons per sq km of geographical area and 2,375 persons per sq km of reported area (Pakistan 1998). Not only that, the people-land ratios are rapidly deteriorating because of high population growth rates that exceeded 3.1 percent in the recent past and are currently estimated at 2.9 percent per annum. The decelerating population growth rates can be attributed to falling fertility rates since the 1980s (Sathar and Kazi, 1997). Pakistan's index of food security is deteriorating.

**Table 2.2 Basic Human Development Indicators of Pakistan**

Estimated population (million) 1998	153
Annual population growth rate (%) 1995-2000	2.7
Life expectancy at birth (years) 1997	64
Adult literacy rate (%) 1995	38
Female literacy rate (%) 1995	24
Combined first, second, and third level gross enrolment (%) 1995	41
Infant mortality rate (per 1000 live births) 1997	95
GNP per capita (US\$) 1997	500
GNP growth rate (%) 1980-93	6.1
GNP per capita annual growth rate (%) 1980-93	3.1
Real GDP per capita Purchasing Power Parity in US Dollars (PPP\$) 1995	2,209
Human Development Index 1995b	0.453
Gender-related Development Index 1995c	0.399

a. Population figures for 1990 are also taken from UNDP: sex and Age and Sex Distribution of Population 1992 (medium variant). The population growth rate has been calculated by using the formula  $\{[(\text{new value}/\text{old value})^{1/n}] - 1\} \times 100$ .

b. The Human Development Index (HDI) has three components: life expectancy at birth; educational attainment, comprising adult literacy, with two-thirds weight, and a combined primary, secondary, and tertiary enrolment ratio, with one-third weight; and income.

c. The Gender-related Development Index (GDI) adjusts the HDI for gender equality in life expectancy, educational attainment, and income.

**Source: Human Development in South Asia 1999**

Pakistan is typically characterised by low proportions of working age population and labour force participation rates. The former follows from a high percentage of children in the population and the latter from the low participation of females in labour force. Compared to average and male participation rates of 41.3 and 69.1 percent respectively, the female rate was less than 11.4 percent (Pakistan, 1998). Following the definition of the labour force, the above figures only represent productive or formal work and cannot be equated to the actual work effort of the two sexes. It may be noted that females in Pakistan are generally confined to household activities and inclusive of such activities they work as hard, if not harder, than the males (Sathar and Kazi, 1998). The low labour force participation rates result primarily from

**Table 2.3 Profile of Food Security and Natural Resources in Pakistan**

Food production per capita 1996 (1980=100)	122
Food imports per capita 1993 (1980=100)	114
Cereal imports per capita 1994 (1,000 tons, 1980=100)	195
Food aid in cereals per capita 1994-5 (1,000 tons 1980=100)	23
Food aid 1992 (\$ million)	190
Child malnourishment (under 5s)	38%
Land area (1,000 ha) 1996	77,088
As % of land area 1996	
- forest and woodland	2
- arable land	28
Irrigated land (as % of arable land area) 1994-96	80
Deforestation (1,000 ha per year) 1980-9	9
Annual rate of deforestation (%) 1990-95	2.9
Reforestation (1,000 ha per year) 1980-9	7
Production of fuel wood and charcoal (1,000m <sup>3</sup> per year)	
- 1980	16,683
- 1993	25,021
Internal renewable water resources per capita (1,000m <sup>3</sup> per year) 1998	1,678
Annual fresh water withdrawals 1987-96	
- as % of water resources	63
- per capita (m <sup>3</sup> )	1,269

Source: Human Development in South Asia 1999

low literacy rates. It has been remarked that while South Asia is the most illiterate region of the world, Pakistan is among the most illiterate countries within South Asia. Current overall literacy rates in Pakistan do not exceed 40 per cent, while only about 28 per cent of females are literate (Pakistan, 1998). The low participation rates of women in the labour force are a complex of low literacy rates, cultural and social constraints, and unequal gender relations.

Pakistan's social and cultural heritage dates back more than 5000 years to the epoch of the Indus civilisation, which was heavily transformed by emphasis on Islamic values. Although there may be regional variations, three aspects of Pakistan's evolving social system may be of direct interest. Firstly, most Pakistanis especially in the rural areas live in extended families. Respect for the elderly, compliance with decisions of the head of the household, love for children and subordination of women are the main features of the system. Secondly, inter-family relations revolve around kinship rather than caste, though the beradari patrilineage<sup>2</sup> is often the more important social institution. The council of lineage elders invariably is instrumental in setting inter-family disputes, picking up electoral alliances and in planning for social welfare programmes. The latter is especially important as the social welfare services provided by the government are inadequately developed in relation to needs. It may be noted that Pakistan allocated less than 7 percent of annual development expenditure to education, health, social welfare and population programmes during 1995-96 despite growing emphasis on a Social Action Programme (SAP) with World Bank support in recent years (Pakistan, 1998). While we have already noted the low levels of literacy in Pakistan, health services are equally inadequate. There are 1505 people per hospital bed, 1725 people per doctor and 5600 people per nurse. Finally, all social norms are embedded in tradition. Being a Muslim society, dance and music are comparatively less developed arts. Qawali and poetry recitation and more recently pop music; radio and television are a popular source of

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<sup>2</sup> Beradari, like kinship, refers to the way in which social relationships within a community or groups are defined and structured. While kinship refers to relationships linked together through marriage, Beradari instead is defined as a network of relationships based purely on consanguineal ties and common descent. So, for example, Beradari can consist of a family, tribe, village, and region and can expand up to the national level.

recreation especially in the cities. Animal races and village fairs continue to be enjoyed by the rural population.

## 2.4 Introduction to the Physical and Social Geography of the Northern Mountain Areas of Pakistan

Our study identified the sustainable agriculture-based rural livelihood 'islands of success' in the Northern Mountain Areas of Pakistan. The purpose of this sub-section is to provide a short physical and social overview of the region. Overall, Pakistan has been divided into seven broad land resource regions as follows: Northern Mountains, Barani Lands, Irrigated Plains, Sandy Deserts, Sustainable Rod Kohi, Western Dry Mountains and Coastal Areas.

Ecologically speaking there exists a great biotic, physical, cultural and ethnic diversity in the mountainous areas. There also exists a great variation in rainfall, topography, vegetation and farming systems in the mountains, which do not permit the making of any generalisations comparable to those in the plains. It would need public sensitisation to overcome social taboos, and the government's planned intervention to enable the coping with fragility and marginality and for human adaptation mechanisms to transform the mountains into agriculturally productive areas.

Land in the mountainous areas is used for arable farming, pasture or forestry. This is dependent on altitude, climate, physiography, soil moisture and socio-economic conditions. Over 90 percent of the area is comprised of steep slopes having a very thin soil base. These slopes are very unstable and they support patchy natural vegetation. Large tracts between 900 to 3300 metres support coniferous forests. In elevations up to 1500 metres pastures are grazed all year round. Small ruminants are grazed causing stress on the vegetative cover. With increasing population pressures and demand the land holding capacity has been substantially reduced. Higher elevations between 1500 to 3000 metres are grazed only during summer, the pastoralists moving with the snowline.

The northern mountains include Malakand Division, Hazara Division, Northern Areas and Murree-Kahuta Tehsil of Rawalpindi District covering 96,340 km<sup>2</sup> and a population of 7.82 million in 1993. The average literacy rate is less than 20 percent. Agricultural land is privately owned in smallholdings with the bulk of farmers engaged in subsistence farming. There are also communal and state owned lands. Income levels are relatively low and overseas remittances, as well as off-farm employment, play an important role in the local economy.

The western dry mountains make up the core of the arid land and cover by far the major part of Kohat and Bannu districts of NWFP and the tribal areas/agencies of Kurram, Northern Waziristan, South Waziristan, Bannu and Kohat. The average rural population density of 12 inhabitants per km<sup>2</sup> makes the region by far the most thinly populated area in Pakistan. The low density is attributed to lack of water resources.

The western dry mountains have a harsher core of dry mountains. The population potential capacity is very low and the current development pressures have impoverished the environment. This area is rich in minerals and natural gas but these are exploited by the more affluent and powerful. Water is scarce and whatever resources are there are not managed well. Untapped resources remain. The inefficient utilisation of water has meant that the water resources, wherever tapped, are being mined. The water table is dropping by 1 metre a year. The run off from flash flood waters is also not being tapped and is allowed to escape to the Arabian Sea. A number of sites for micro-dams are available. Less than 3 percent of the area is under high value crops. This can be enhanced provided the interventions are such as to value the cost of this resource appropriately. Soil erosion is the major component of desertification.

The mountainous areas in Pakistan fringe the northwest forming a formidable barrier. The range of mountainous areas varies from the highest to the definition normally followed of what constitutes a mountain range (500 metres). The ecology of these areas varies and its capabilities can be severely limited by available natural resources. This is



reflected in the culture and functional aspects. The social system can range from very collaborative to the extreme harshness of tribal systems. The harmonious living of the northern areas on one extreme is countered by the tribal conflicts in the southwest. The tribal system follows its own codes of conduct and justice. The tribes are very tightly organised. The tribal leadership is intact and codes are rigidly implemented. The social structure of some of the tribes has been modified in some cases by their proximity to settled areas. Efforts by successive governments have been unsuccessful because physical force has been used as an intervention. Evidence is available that this can be achieved through simple economic-based interventions. Pakistan has however not followed this route. This may have come about by accident and not as a matter of a conscious government fiat. The way of life and the compulsions are different from the plains. The cultural aspects provide security and subsistence under very harsh conditions. It may be easy to condemn a given social system because it no longer coincides with a given model of a system. Where living conditions are harsh, and where production systems are nomadic there may be no other options other than to be part of a given system. The areas are closed to development of resources, and conflict between the government and the tribes is a common occurrence. Education and health facilities are unheard of and roads are not allowed. Electricity power lines are frequently vandalised. Given this scenario development is pushed back by decades. The will and the right of the federal government are virtually non-existent. The conditions that can lead to a change are not noticeable but a more participatory approach especially in the western dry mountains would be required.



# Chapter 3 Conceptual Framework and Methodology

The previous overview sections provide a backdrop to this study as we now turn our attention to the PTW-SARL framework. Firstly, a descriptive historical jaunt in the development paradigm allows us to see where we were and where we are now in terms of dominant philosophies and trends as they related to agricultural and rural development. We then elaborate on our conceptual framework: sustainable agriculture-based rural livelihoods. Lastly, we define some key concepts and provide details of our methodology.

## 3.1 Agriculture in a Development Paradigm

The development paradigm in the 1950s and the early 1960s focused very much on the movement from non-industrial or agricultural based production to the growth of industrial-based production as a percentage of the economy. The focus of development was on industrialisation and growth, with the essential indicators being such figures as Gross Domestic Product and export earnings. The theoretical underpinnings of these assertions came from such writers as Lewis (1954), who, in his highly influential text “*Economic Development with Unlimited Supplies of Labour*,” asserted that as development occurred, the agricultural or subsistence sectors would become less and less important as a percentage of national product (Lewis, 1954 p. 412). One important result of this assertion was that many governments and policy makers began to view agriculture as a less important element of a national economy, secondary to industrialisation. Hirschman in his “*Strategy of Economic Development*” asserted that agriculture had few linkages to the rest of the economy, and thus would provide few knock-on growth effects through agricultural development. These arguments also contributed to

early opinion that agriculture was secondary to development, an opinion that ultimately contributed to the early neglect of agriculture in the development process (Eicher and Staatz, 1985).

Throughout the late 1960s and 1970s, dependency theory began to contribute to the debate on agriculture in development, although in a less direct way. The dependency theorists, primarily but not exclusively Latin American, began to draw attention to the linkages between not only agriculture and industry in the domestic economy, but also between agriculture, industry, and the international global capitalist economy. While highlighting the dangers of linkages that tied an economy inextricably to the unequal global economy, the dependency theory promoted the benefits of domestic industrialisation for overcoming these exploitative ties. Import substitution industrialisation became prominent as many less developed countries (LDCs) attempted to push their economies forward and reduce their political and economic dependence on the developed countries.

Through the assertions and writings of the dependency movement, a more political economy oriented approach became increasingly popular, and theories of development began to look beyond pure growth motives to examine the relationship and ties between issues such as industrialisation, agriculture, exports, rural and urban development and the persistence of poverty (ibid, p.12). These theorists contributed to a subsequent shift in the late 1970s in general development theory, which began to explore issues of equity as well as pure growth. With this shift in theory came a change in focus away from the primacy of industrialisation and a reassessment of the previous neglect of agricultural sector and rural areas overall. The increase in poverty and inequality in many of the countries pursuing economic development made it more apparent that the developing industries in many LDCs could not keep up with demands of a rapidly growing labour force.

More recently, the emergence of the Sustainable Development concept has gained widespread currency. Concerns about growing human populations and the idea of 'limits to growth' had prompted the Brundtland Report to conclude that there is a need "to concern

ourselves with the impacts of ecological stress – degradation of soils, water regimes, atmosphere, and forests – upon our economic prospects” (World Commission on Environment and Development, 1987).

Although still vague<sup>3</sup>, Sustainable Development holds appeal in that it promotes a balanced approach to development while building on earlier concerns of equity and growth for the well being of current and future societies. This, in turn, has spurred on the concept of *Sustainable Agriculture-based Rural Livelihoods* (SARLS).

## 3.2 What are Sustainable Agricultural Based Rural Livelihoods

Sustainable Agriculture is a complex and diverse issue. There are many definitions of sustainable agriculture, and they can be investigated at different levels from field, farm, local, regional, institutional to national levels. Nevertheless, a precise definition of sustainability and therefore sustainable agriculture depends on one’s perception of how agricultural systems are being affected or influenced by various levels and factors such as economic, environmental, social, institutional and cultural aspects. An applicable definition for Sustainable Agriculture in the context of Pakistan’s Case Study is given in Section 6.

The concept of sustainable agriculture has evolved from the farming systems approach where the emphasis had been on the productivity and stability of the production system with the subsequent consideration of the environmental impacts. But when the concept was extended to include livelihoods it needed to consider issues beyond resource-conserving technologies. Now the emphasis has shifted to include issues and their interactions such as social, institutional and cultural aspects.

The significance of sustainable agriculture reflects the need for balance between conservation on one hand and sustainable use on the other, which takes into consideration the rights of future generations and

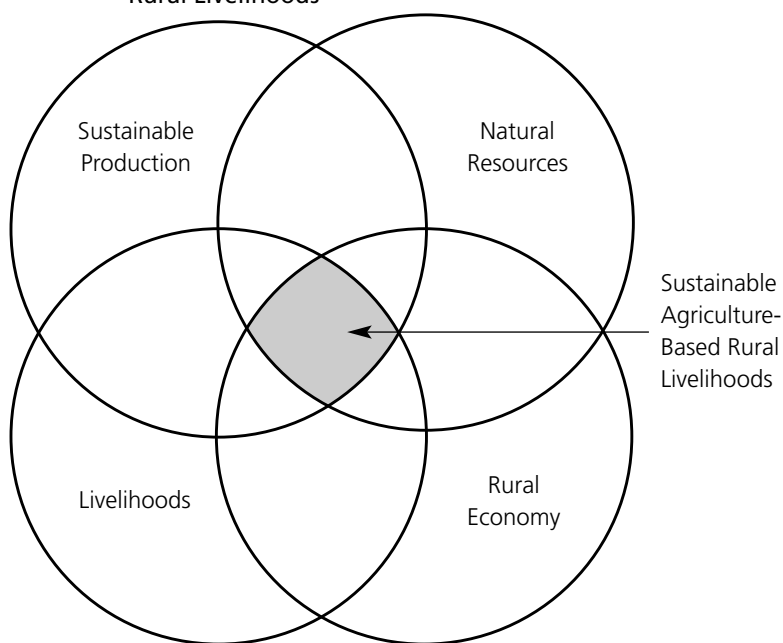
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<sup>3</sup> Since the Brundtland Commission’s Report, there have been at least 70 more definitions constructed, each different in subtle ways, each emphasising different values, priorities and goals.

perhaps the rights of nature itself. Sustainable agriculture can provide the short and long-term benefits and welfare of farmers and communities. The principles and practice of Sustainable Agriculture-based Rural Livelihoods (SARLs) are able to relieve the tension between short-term economic survival and long-term economic and environmental survival.

Since sustainability can be defined at many levels and each level has several degrees of interaction, and since sustainable agriculture has both spatial and temporal dimensions, it is important to have the participation of all stakeholders at different levels in the process of achieving SARLs. Besides considerations of impact assessment and ‘downstream effects,’ SARLs may include such issues as farmers’ empowerment, appreciation and reliance on local knowledge, capacity building and openness to adapt to changes. The scope/focus of SARLs would differ from institution to institution depending on their objectives.

Figure 1: Core Elements of Sustainable Agriculture-Based Rural Livelihoods



The conditions for SARLs therefore depend on the existence of four core elements: namely, sustainable production, livelihoods, natural resources and linkages to the rural economy (see Figure 1). That is, while improving agricultural productivity through sustainable technologies and practices can go some way toward increasing local food availability, this alone will not be sufficient to meet many people's food security requirements. This demands that we concentrate on looking at issues of entitlements, livelihoods and the linkage between sustainable agriculture and rural economy rather than strictly on agricultural productivity levels. This requires a shift in focus from a strict food entitlements analysis to more a general entitlements approach, including crucial non-food aspects such as employment and income generation, the retention of surplus, supporting women as producers, security of tenure, strengthened capacity of local organisations; developing new rural savings and credit schemes; and the creation of appropriate safety nets for times of crisis. A strong two-way link is necessary between agricultural production systems and the local economy, which buys its products and provides it with essential goods and services. These elements will all help to contribute to the creation of vibrant and equitable rural economies.

Each of the elements of sustainable agriculture and regenerated rural economies are shaped by policies from various sectors and at various levels. To achieve SARLs, the emphasis is therefore on policy and policy processes. Policy analysis, when it looks at policy impacts, tends to start with a particular policy and then traces what impacts it has had: a cause-effect strategy. Our analysis reverses that process and begins with effect-cause relationship rather than cause-effect. The uniqueness of this approach, of analysing the policies and policy processes that support the development of SARLs is therefore on the:

- Identification of key indicators and their analysis;
- Participation and analysis of stakeholders;
- Policy reference group;
- Alternative policy analysis.

### 3.3 Study Approach and Methodology

The above-mentioned definition of SARLs requires that we understand the policy environment and the institutional frameworks that produce policy and delineate policy processes. It is imperative then at the outset we clearly define what we mean by *policy* and *institutions*. These definitions, we believe, will particularly help in two regards. First at the macro-level, they will identify the gaps in policy-making and highlight wider factors, which would not have been previously documented. Second at the micro-level, they will highlight the shortcomings of concepts taken for granted and require further scrutiny so they become more meaningful especially when scaling-up success stories.

Policy in the context of this report is defined “as a settled course of action adopted and followed by a government, institution, body or individual” (Webster’s Dictionary). Therefore a government, an institution, a body, or an individual may all have formal statements of policy, intended to manage their affairs successfully. Yet in practice, unless they have adopted and followed a settled course of action, formal statements will not qualify as policy, however much governments may keep reiterating them.

Institutions are more difficult to define. While some see them as formal organisational structures, others point to the more informal norms and rules that exist in a society. For the purposes of this report, institutions may be defined as neither static nor a-historical but dynamic, context-specific and heterogeneous, enabling and constraining, sites of power inequalities and contestation, overlapping and occupying a ‘messy middle’ between formal and informal institutions and finally, actively re-negotiated and invested in (Berry, 1989).

The research methodology of this document reverses the way we look at policy processes and impacts. We begin with the effect of sustainable agriculture and then try to identify the causes. Furthermore, the research project is entitled ‘Policies That Work’, and therefore, the emphasis is on success. And although an objective criterion of success is not possible



due to different perceptions, the mandate of this research focussed on the informed judgements of stakeholders in agriculture. What was required was a consensus among the participants of what they considered was apparently successful using their own criteria, and for the research team subsequently to validate that consensus through discussions with people who did not participate in the Inception Workshop. Four programmes/projects were identified as successes that communicate lessons for policies and policy processes and possible replication on a wider national scale. These programmes and projects are covered in more detail in Sections 5 and 6.

### 3.3.1 Participatory Research Methodology

By involving the Agriculture Department and some other stakeholders in agriculture, an effort was undertaken to build not only a constituency for this project, but also to initiate change. Throughout the study, the disposition of the participants varied from that of enthusiasm to sheer scepticism.

The consensus-building process included:

- An Inception Workshop, which was facilitated by Usman Iftikhar, IUCN and Simon Croxton, IIED, was held in August 1997. At this point participants included members from NGOs, projects, donors and semi-autonomous government institutions. The meeting helped to define the research agenda and establish a policy reference group.
- Collaborative Analysis, with a two-way flow of information from the study team and a range of stakeholders throughout the course of the study.
- A National Workshop was held in February 1999, involving the National Rural Support Programme, the National Agricultural Research Centre, the Sustainable Development Policy Institute, academia the Cooperative Department, the Agricultural Prices Commission, the Murree-Kahuta-Kotli-Sathian Project and IUCN.

### 3.3.2 Information Sources

Secondary data that was reviewed included:

- Project reports and related evaluation documents
- Published and unpublished statistics and government reports on agriculture
- Selected material from the National Conservation Strategy and the Sarhad Provincial Conservation Strategy.

Primary data included:

- Semi-structured, key informant interviews, which were held with the agriculture department, donors, NGOs, project staff;
- Rapid Rural Appraisal, semi-structured interviews, key informant interviews and transect walks were conducted with local communities.

# Chapter 4 History of Pakistan's Agriculture – Impersonalised Policies or Inept Governance?

## 4.1 Introduction

When it comes right down to it, the state apparatus in Pakistan is a direct reflection of the colonial system established by the British authorities. It has very little to do with the aspirations and day-to-day existence of the vast majority of rural people in Pakistan. Historically, the need to appropriate surplus and control the population of British India which included present-day Bangladesh, India and Pakistan, the British authorities set-up a military-bureaucratic structure capable of planning agricultural development, while maintaining a firm hand over the masses of people (Alavi, 1976). Under the British authorities large-scale irrigation schemes had already been planned and established; however, the infrastructure plan was geared only toward exports of the primary products that the sub-continent prolifically produced. The British Authorities brought large landowners (now referred to as feudal lords) under the wing of the British authorities; these landowners benefited immensely from British patronage, and also helped to subdue much of the unrest in the region. The system of sharecropping prevailed in this feudal setting.

The culmination of the independence movement brought into existence on 14 August 1947 the state of Pakistan. As Alavi (1976) points out, the overthrow of the British meant that the postcolonial state inherited the overdeveloped state apparatus and its institutionalised practises. Various state organisations/ministries and departments took on agricultural development as their singular responsibility. Field organisations, because

of the inherited structures, were stronger than the planning ministries as the conceptualisation process took place in the Secretariat. Policies were discussed directly in the Cabinet without consulting concerned institutions. Probably the one most significant factor was the overriding strength of the civil service of Pakistan, a legacy of the colonial past. Things started changing with the formulation of the One Unit, in which the provinces of West Pakistan (the other part being East Pakistan), in all four, were made into a single entity.

This section forms part one of our macro-research theme, and traces the political economy and policy and institutional history of agriculture in Pakistan. It does this by sectioning agricultural development into four stages: namely the industrial focus (1950-60), the industrial focus with a twist, industrious farmers and green revolution (1960-70), the social experiment that failed (1970-78), and the emergence of a new global reality (1978-90). Here the objective is to come to terms, from a macro perspective, with the policy environment and institutional frameworks that tilt the balance in the direction they have, and the ramifications this has for those outside its setting and what this means for sustainable agriculture-based rural livelihoods.

## 4.2 History of Institutional Planning Process in Agriculture

In Pakistan, the shifts in policy and the planning process have historically taken place due to myriad factors. Most of these have come as a result of external stimuli. The fact that Pakistan has been under the influence of international institutions is now highlighted by open discussions on factors that affect the economy. In the planning process not much had occurred till the early 1960s, when the Harvard and the Boston groups came to Pakistan and placed the formal planning process in position.

The planning process initiated in the 1960s enabled the thinking process to be integrated with the implementation process. This intervention was particularly important then because it allowed for focused thinking.

Technical and economic aspects were coming to the fore. This required that issues be dealt with in the thinking process rather than in the Secretariat. The Federal Planning process was duplicated in the provinces. The planning process authority was limited by the financial limitations imposed by the project approval phase. In other words, planning in the provinces was dependent on financial implications and not on substantive work. Therefore, irrespective of the importance and nature of work the limitations were finance only. Beyond a certain implied cost the project went to the federal government.

The difficulty in this kind of development planning was that some assumptions were not questioned, and hence, taken for granted. The nature of work instrumentally took on more of an infrastructure development process. The machinery and equipment (hardware) came next. The hardware was more or less covered. But the software (knowledge, training, skills) aspects were assumed to be covered by the existing knowledge base. It was somehow believed that the knowledge base would automatically lead to the optimal use of hardware. It is true that later on a human resources development aspect was added, however that did not help during the process, as what was taught was not automatically useable. However, human resource development did two things; a) It took some of the best people away from the on-going projects for a long period of time, and b) it led to the 'brain drain' process. Those who went for higher education tried to stay longer or never returned.

These developments, in turn, signified ambivalent consequences for Pakistan. Some projects considered critical for the country suffered loss, e.g., the Agricultural Research Project-II of the World Bank aimed at strengthening social sciences research in the country by improving both hardware and software capacity. The ARP-II provided the latest computers and offered many scholarships to social scientists. However, the paradoxical situation between the hardware and software requirements was not handled adequately.

Policy issues, particularly in the agriculture sector were handled differently. The agrarian sector was managed through the colonial

revenue system. In the early 1970s, it became apparent that the system would not work and that it would require major shifts in policy and pricing of agricultural products. Important policy changes were brought into the agrarian structures and in the relations between landlords and tenants. The two land reforms of 1972 and 1977, though inefficiently handled, led to change in economic relationships between landlords and tenants. Subsistence agriculture had to give way to commercial agriculture and this required a major shift in policy. Changes came into the Revenue and Tenancy Act. It required landlords to share half of the input costs with the tenants. This shift had important implications for the decisions regarding the kind and quantity of the inputs to be used. It corrected some of the relationship problems between tenants and landlords but clearly much more remained to be done if the farmer was to improve his quality of life.

The markets were non-existent. So a new framework had to be provided. The two cash crops, rice and cotton, were to be handled by State parastatals. The Rice Export Corporation of Pakistan (RECP) came into being. The RECP traded in the international market for the export of aromatic basmati rice and at the same time managed the domestic market for coarse rice. Rice provides food security as well as income to farmers. It is a tradable commodity as well as a food security commodity. The excellent initial work by the RECP speaks volumes of the effective mechanism in place for world trade. The excellent work continued for over a decade. Then it was overtaken by institutional inertia. As a result, the RECP is now being dismantled. The weak market compulsions of 1970s are no longer there. The world scenario has also changed. In other words, the social compulsions of the 1970s have given way to free trade. The private sector will have to perform or suffer the consequences of losing their markets.

In the 1970s, the agriculture sector received more attention. The Cotton Export Corporation (CEC) was set up for the voluntary procurement and export of cotton, and all cotton-ginning factories were nationalised. The CEC broke the cartel of the purchasers, all of them working under the umbrella of the All Pakistan Textile Mills

Association (APTMA). The APTMA used to keep domestic cotton prices lower than world prices by more than 30 percent. Quite often, textile units did not pay the farmers for quite a long time. Delayed payments together with lower prices did have negative impact on cotton production.

The CEC retained its monopoly over cotton exports until 1986-87. Thereafter, the private sector was allowed to export cotton out of CEC stocks. Nevertheless, the CEC still maintained control over cotton exports. In 1993, the export of raw cotton was temporarily suspended due to the domestic crisis in cotton processing. This created great uncertainty in both the international and the domestic markets and adversely affected the credibility of Pakistani exporters.

A support price system was introduced for major agricultural crops. Initially, the level of support prices was set on an ad-hoc basis. In 1981, the Agricultural Prices Commission (APCOM) was established with the mandate to establish a support price system for agricultural commodities. The APCOM covered only major crops. The basic flaw in the fixing of producer prices is the inability to classify farmers. The farmers' spectrum on quality is very diverse. Conceptually it is impossible to determine what is an efficient farmer and what is an inefficient one. The price structure could then be building up inefficiency in the agrarian system. The crops that APCOM has not covered have done equally well if not better. So the search for a middle road to remove the paradoxical situation continues. In the absence of the institutions necessary to implement the support price through marketing networks this at best was an indicative price fixation structure.

## 4.3 Political Economic, Policy and Institutional History of Agriculture

### 4.3.1 The Industrial Focus (1950-60)

The political economic history of Pakistan's agriculture reflects many things, including the western bias prevalent in the development

paradigm. Historically, Punjab (or the plains region) was considered the granary of the subcontinent. However, this was the age of the Lewis Model and hence economic development was synonymous with industrialisation. This meant that the agricultural sector was ignored and instead initial development efforts were directed entirely towards industry. This neglect led to increasing problems in agriculture of water logging and salinity, and yields began to suffer. On top of this, a severe drought in 1952 meant that the situation now became serious. As the import of about a million tons of wheat to meet a severe food shortage went ahead, the neglect of agriculture became apparent.

Some attention was finally directed toward the agrarian economy during the First Plan period (1955-60). However this was not sufficient to affect the declining performance of the sector. The average annual growth rate of the sector during this period was only 2.1 percent, that of food grains was 3.4 percent while population grew at 2.5 percent per annum. Moreover, the process of industrialisation and urbanisation translated into greater demand for food grains and as a result, Pakistan became a regular importer of food-grains, averaging over half a million tons during this period. Despite these imports, average per capita food grain consumption remained relatively low.

It is not surprising then that the First Plan's target of a 9 percent increase for food grains and an increase from 15 percent to 33 percent of total output for each cash crop did not match final production. The increase in food grain production was negligible; for cotton it was only 2 percent against a planned increase of 21 percent. These failures occurred despite significant increases in irrigated and cropped areas. By 1959-60, yields for rice, grain, wheat and sugarcane had declined, stagnated for maize, barley and rapeseed, and increased only for cotton. Most of the increases in total agricultural production were the result of increases in cropped acreage, an increase from 11.63 million hectares in 1947-48 to 15.25 million hectares in 1959-60.

However, this period saw significant changes in the institutional realm, which played a significant role in the following decade. For example, in



1958 the first of these changes was the establishment of the Water and Power Development Authority (WAPDA). WAPDA's charter included the investigation, planning and execution of schemes in the fields of irrigation, water supply and drainage; the prevention of water logging and the reclamation of waterlogged and saline lands; flood control and the generation, transmission and distribution of power.

The promulgation of Land Reforms and the Consolidation of Holding Ordinance came next. A ceiling was placed on the size of the holding; of 500 acres irrigated or 1000 acres of unirrigated land. Close to a million hectares of land was reclaimed and tenants were given the first choice of purchase. The government abolished jagirdari and a degree of security was provided to tenants. The fragmentation of holdings below the defined subsistence and economic units was prohibited.

Finally, in July 1959, a nine-man Food and Agriculture Commission was assigned the task of analysing the poor performance of the sector. The Commission's report submitted in late 1960 concluded that the lack of policy implementation was the effective bottleneck. Consequently, the Agricultural Development Corporation was established and entrusted with the task of organising supplies and providing technical knowledge to the farmers to help bring about the necessary changes in their method of cultivation. These institutional changes played a major role in accelerating the pace of agricultural development in the following two decades.

#### 4.3.2 Industrial Focus with a Twist: Industrious Farmers and the Green Revolution (1960-70)

By the beginning of the Second Five-Year Plan (1960-65) the institutional changes had already begun to exert a positive influence. A comprehensive plan to combat the efforts of waterlogging and salinity had been formulated. Subsidies were introduced on fertilizers, improved seed and plant protection chemicals. The policy toward agriculture was aimed at unleashing the entrepreneurial potential of the medium sized farmers and a new, highly productive rural middle class began to emerge.

During the Second Plan the agriculture sector grew at 3.8 percent per annum, a rate higher than the growth in population. The overall growth in the production of the major crops was 4.7 percent per annum. For the minor crops it was 4.8 percent per annum.

In 1965 a 20-year Perspective Plan (1965-85) was formulated and the ambitious objectives were to be realised through 5-year Plans beginning with the Third Plan. Targets for the growth rates were set at 5.6 percent in agriculture, 10.2 percent for manufacturing and 7.7 percent in other sectors. The beginning of the Plan period was not auspicious. In July 1965, the Aid-to-Pakistan consortium meeting was postponed and following the September 1965 War with India, the USA suspended all aid, including the food aid to Pakistan. Consequently, the development programmes had to be curtailed though the targets were not formally changed.

The suspension of food aid coincided, ironically, with two successive years of drought leading to larger food imports and rising domestic food prices. Fortunately, new high-yielding varieties of wheat and rice, developed at the International Wheat and Maize Institute (CIMMYT) in Mexico and the International Rice Research Institute (IRRI) in the Philippines respectively were made available. Initial experiments showed these HYVs suited fairly well to Pakistan's agronomic development. An ambitious programme was, therefore, launched to select, adapt and introduce the new technology to the farmers. Pakistan's breeders followed through with the evolution of varieties suitable for the different ecological zones. The programme was an enormous success and by 1970, 52 percent of the country's wheat area was under modern varieties. Coupled with the increased use of water and the availability of subsidised chemical fertilizers, both the yields and the production of these major crops increased dramatically. These phenomenal changes, dubbed the "green revolution," not only generated high rates of return to agricultural investments but also helped achieve growth rates beyond the expectations of the planners.

Agriculture grew at 6.3 percent per annum during the period 1965-70, compared with 3.8 percent during the previous Plan period. Major

crops grew at 9.1 percent and minor crops at 3.8 percent. Although the early innovators and the major beneficiaries were relatively large farmers, the new technology did permeate through to smaller farmers inducing greater commercialisation and greater use of modern inputs. Because the adoption of the new technology was not universal, intra-regional and income inequalities increased, but the profitability of the progressive agriculture practices no longer remained in doubt.

#### 4.3.3 The Social Experiment that Failed (1970-78)

Political unrest affected the final years of the Third Plan, and a new government (which was a Martial Law Government), announced the Fourth Plan in 1970. The Plan was marred from the outset due to serious controversies regarding provincial allocations and investment priorities. In the aftermath of the 1970 elections and the subsequent break-up of Pakistan, the Plan was formally abandoned in 1971. The new government, which was installed in 1971, announced that a fresh long-term development plan would be announced in 1974. Meanwhile, during this period there would be reliance on the annual development plans.

The objective of these annual development plans was to seek major institutional and structural reforms with the stated objective of reducing income inequalities and improving the lot of the rural masses. Land reforms were announced in March 1972. The ceiling on landholdings was reduced by 70 percent to 150 acres of irrigated and 300 acres of unirrigated land. The reforms aimed to provide additional security to tenants, prohibit arbitrary eviction of tenants; explain the cost and crop sharing relations between landlords and tenants, and laid down the policy for the distribution of state lands.

Further reforms were announced to improve the land revenue administration and the system of agricultural taxation. For various political and administrative reasons most of these reforms could not be effectively implemented. Less than half a million hectares of land (2%) were reclaimed and redistributed. However, the lot of the tenants

improved considerably and arbitrary actions by landlords against tenants were severely curtailed.

Three major rural reconstruction programmes were undertaken during the early 1970s as a follow up of the Village Aid Programme initiated in 1953. These were the People's Works Programme, the Integrated Rural Development Programme (IRDP) and the Agrovilles Programme. The first of these was designed to provide employment opportunities to rural and urban areas by productive projects of short duration. The IRDP aimed at setting up centres in the rural areas to provide inputs to farmers such as fertilizers, pesticides, agricultural machinery and technical guidance, along with supervised credit. The Agrovilles programme envisaged the location of small towns in the rural areas to provide agricultural services; marketing facilities supply centres, and a venue for the agro-based industries. By providing employment opportunities to the surplus rural labour, Agrovilles were designed to reduce the large-scale migration to the cities that was creating overcrowding and serious social problems. Despite these extensive programmes and reforms, the agricultural sector displayed slow growth rates and a sluggish performance. Several exogenous shocks to the agricultural economy contributed to this situation. These included three major droughts (1970-71, 1971-72, and 1974-75) one major flood (1973-74), the OPEC oil price hike and the consequent 300 percent increase in fertiliser price, and the extremely disturbed political and social conditions through most of the early seventies. As a result, during 1970-78, agriculture grew at only 1.7 percent per annum, major crops at 0.9 percent and minor crops at 4.6 percent.

#### 4.3.4 Emergence of a New Global Reality (1978-1990)

Agricultural production during this period grew at 4 percent a year as compared with 5 percent in the 1960s and 1.7 percent for the eight-year period 1970-78. Despite the situation in the international and national economy, production increased at a satisfactory rate for four major crops – wheat, rice, cotton, and sugarcane all saw impressive growth. For the first three, output increases were a result of both acreage and the

yield increases; for sugarcane increased production resulted from increased acreage. The pricing policy was especially favourable to this crop resulting in farmers switching to it.

In February 1980 a National Agricultural Policy was announced. The main emphasis was on a restructuring of the pricing policy, moving away from input subsidies and towards increased output prices. Fertilizer subsidies were reduced, pesticide subsidies eliminated and water charges increased. Procurement and support prices for crops were increased on the recommendation of the Agricultural Prices Commission set up in 1981. The supply of inputs was increasingly shifted toward the private sector and existing public sector facilities, particularly irrigation, were to be improved. The improved supply of inputs, particularly water, fertilizer and seeds, coupled with favourable weather conditions, led to increased output levels of major crops. The agriculture sector during the Fifth Plan (1977-82) performed satisfactorily with an overall average growth rate of 4.5 percent per annum.

In the Sixth Plan (1983-88), the propagation and effective use of modern inputs, irrigation water and mechanisation were to be further encouraged through increased availability and improved extension services. Small farmers were to be particularly encouraged through an improved package of inputs and credit availability. Increased production was to be geared towards both self-sufficiency in food and increased exports.

A realistic target of 4.9 percent growth per annum was not achieved in the Sixth Plan period. The major success of this Plan had been the production of cotton and wheat. Cotton and wheat output achieved their desired targets, and for cotton, it even exceeded the targeted goal in 1986-87. The failure to achieve the other targeted goals can be attributed to cuts in public investment, particularly in the areas of irrigation, watershed management, and public storage and marketing facilities. Expenditure on research and extension had exceeded the target; however, there was not a comparable impact on small and low-income farmers.

In fact, performance regarding the lot of small farmers had been least satisfactory. No specific policy instruments or packages were devised for this category of producers despite the stated objectives. The Sixth Plan policy of input subsidies and price supports for cash crops worked more to the advantage of the large farms that also managed to capture a major portion of the subsidy on credit and fertilizer. In fact, most of the increases in production resulted from a minority of large and medium sized farmers and the yield gaps between the progressive and the traditional farmers remained wide. The overall institutional support did not adequately benefit all crops or all categories of farmers.

#### 4.4 Conclusion: state of agriculture and rural economy in Pakistan

In the more recent years of the 1990s, annual growth of agricultural production has decelerated considerably from almost 4.6 percent in the late eighties to 3.9 during 1990-95 and further to 2.5 percent between 1994-95 and 1998-99. This slow down in growth has been the result of severe pest attacks on cotton, greater increases in input prices relative to commodity prices (Chaudhry 1997); negative protection coefficients and rising resource transfers from agriculture, worn out irrigation and physical infrastructure, inefficient water use, lack of access to institutional credit, research and extension services, poorly managed agricultural input and commodity markets and overhead exchange rates (Faruquee 1999). In fact the input and commodity markets were typically characterized by their monopsony<sup>4</sup> and monopoly positions respectively with the result that black marketing and adulteration of inputs and under-pricing of agricultural commodities were common features of the two markets. The restrictions on inter-district and inter-provincial movement of agricultural produce often resulted in market gluts in the surplus regions and further compounded the problem of under-pricing of agricultural commodities (Chaudhry (1997). On top of these problems, Pakistan's agriculture also faced ever-worsening situation of

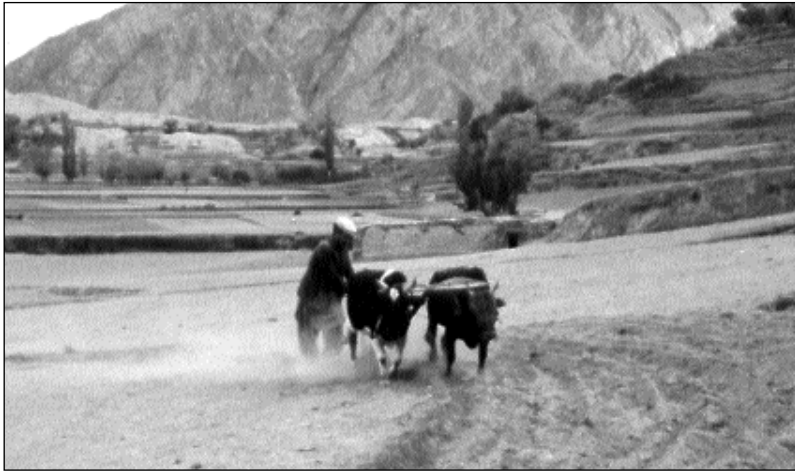
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<sup>4</sup> This exists in the event of a dominant or single buyer in the market, which is able to significantly influence the prices at which he or she purchases factor inputs. A monopsony can occur in different kinds of markets, e.g. in the labour market, there could be a situation of one firm which dominates hiring and firing.

water logging and salinity, stagnating technology and resource crunch as a result of stringent loan conditions of international donors. Pakistan's efforts in agricultural and rural development were heavily concentrated in the plains and led to the neglect of other regions. For one thing plains were easily accessible by cart or motorised vehicles. By contrast for example, mountains permitted no such access. Secondly, mountain regions suffered from heavy losses of topsoil due to water erosion in contrast to the fertile alluvial soils of the plains. Thirdly, irrigation infrastructure was already in place in the plains and additions to it were easy. The mountains lacked such infrastructure and the topography of the region was not at all conducive to the building of an effective irrigation system. Finally, the large contiguous areas of plains and stable soils were highly suited for the large-scale introduction of modern technologies like chemical fertilizers, high yielding varieties and mechanized cultivation.<sup>5</sup> By contrast the inaccessible terrain of the mountains permitted no such prospects.

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<sup>5</sup> Editor's note: the plains are also rich in rent-seeking opportunities, from inputs (subsidies) to outputs (the marketing of cotton and wheat).



Soust, north end of Hunza valley close to Khunjerab Pass (Photo: Steve Bass)



# Chapter 5 Have We Got a Bigger Problem Now? A Profile of Recent Policies and Institutional Development

## 5.1 Introduction

This chapter reviews recent developments in Pakistan's agriculture in terms of policy initiatives and institutional improvements, and looks at their consistency with the norms of sustainability of the agricultural sector. The discussion of the section is hence centred on sustainability of agriculture, as it relates to six major sub-topics including 1) macro-economic policies, 2) price policy, 3) input and output supply management, 4) agricultural infrastructure 5) research and technology, and 6) population growth. It must be noted that policies are likely to affect sustainability in various ways and need to be elaborated upon separately. However, an attempt will be made towards the ends of this section to look at the aggregate impact of these policies on the agricultural sector and rural areas in terms of trends in growth, income distribution and poverty.

## 5.2 Individual Policies and the Sustainability of Agriculture

### 5.2.1 Macro-economic Policies

Under the World Bank/IMF Structural Adjustment Programme, Pakistan since the 1980s has committed itself to privatisation, deregulation and economic liberalisation of the national economy (Khan, 1991). In the first round of reforms, liberalisation was mainly centred around exchange rate policy and the removal of subsidies on agricultural inputs. Beginning in 1982, Pakistan moved away from fixed exchange rates to a

policy of flexible exchange rates, and subsidies on all insecticides and agricultural machinery were withdrawn. Although fertilizers, electricity and irrigation water were still subsidised, their prices were raised to reduce subsidies with a commitment to phasing them out over a certain period of time. A growing emphasis was placed on balanced budgets resulting in the curtailment of many ongoing projects.

While the emphasis on the first round of reforms continued, a host of other far-reaching reforms were a special feature of the second round. For example, efforts at *denationalisation* and deregulation were considerably stepped up, and a privatisation commission for the denationalisation of State Owned Enterprises (SOEs) was inaugurated. Out of a total of 115 SOEs, the commission passed on 21 industrial units to the private sector by mid-1992. Bids for the disposal of another 32 units were at various stages of consideration, thus nearly half of SOEs will soon be in private hands, and the commercial banks will shortly follow. While the government intends to denationalise all the private banks, two of the four have already been transferred to the private sector. Furthermore, the government has also approved the creation of 10 more private commercial banks.

Although international trade, domestic trade in agricultural commodities and inputs, telecommunications, air transport and shipping were exclusive state monopolies, considerable dilution of these monopolies has occurred as the private sector has been allowed to own and operate the available facilities with or without assistance from the public sector corporations. For example, private traders have now been allowed to engage in the import and export business. The role of the private sector in the production and marketing of agricultural inputs has been expanded, and plans have been drawn up for a revival of private markets for agricultural commodities.

As a part of deregulation policy, the softening of terms or the removal of restrictions on trade, foreign investment and foreign exchange have been the major policy redirections. For example, licensing requirements for the import of goods not on the negative list have been abolished, the

goods on the negative list were curtailed from 118 to 87, and duty rates from a maximum of 125% were reduced to 90%. To encourage foreign investment, overseas Pakistanis were allowed to undertake any investment without government approval. Foreign investors can own 100% of equity, remit dividends and disinvestment proceeds without government permission and borrow any amounts in international markets. While Pakistan continued to follow the policy of flexible exchange rates, restrictions on holdings of foreign currencies were totally abolished. In fact, even resident Pakistanis were allowed to open and maintain foreign currency accounts. On the domestic front, private investment could be undertaken without government permission. Apart from tax holiday periods of 3-8 years, the import of machinery for such investment also qualified for a 50-100% reduction in custom duty. Economic liberalisation in Pakistan has undoubtedly been quite rapid, especially towards the end of the 1980s. However, this progress has not been uniform across all sectors but has proceeded at varying rates.

The whole idea behind economic liberalisation is the creation of a distortion-free market economy, which typically performs resource allocation functions in the most efficient manner. Being output augmenting and resource conserving, the macro-economic policies must largely be consistent with sustainable agricultural development (Kikuchi, 1994). If historical evidence in this respect could be relied on, one can be certain of the positive effects of economic liberalisation on economic growth and income distribution. It has been shown by historical data in Pakistan that the periods of laissez-faire government had a positive effect on growth and income distribution against negative effects during periods of dirigiste regimes (Papanek, 1991). For example, annual growth rates of output were in excess of 6.5% during the 1960s and 1980s in contrast to less than 5% of the 1970s. Similarly, income distribution in Pakistan improved considerably during the 1960s and 1980s but had deteriorated in the 1970s.

One of the assumptions underlying the positive impact of economic liberalisation on growth and income distribution is that private enterprises operate more efficiently than state-owned enterprises. It has

been argued in some studies in Pakistan that this assumption may not necessarily be true and that a blind pursuit of privatisation may not be as beneficial as is sometimes believed to be (Naqvi and Kemal, 1991). It may, however, be noted that such arguments, though reducing the degree of efficiency gains, do not undermine the rationale of economic liberalisation.

However not all issues in sustainable agriculture can be dealt with strictly by markets based policies. A move towards self-reliance and the consequent budget cuts are particularly disturbing in this regard. The stringency of budgets does not only retard growth but can also result in rising unemployment rates and heightened poverty levels (Mellor, 1988). The underlying argument is that surplus government spending is consistent with excess demand creation, added government and private investment to meet excess demand and in the process leading to enhanced employment especially among the relatively poorer sections of the society.

### 5.2.2 Agricultural Price Policy and Sustainable Development

As is well known, Pakistan has always followed a policy of intervention in the price mechanism, to the point of subverting it. In the 1950s, for example, most agricultural commodities were subjected to compulsory procurement at substantially less than world prices. However, this policy was relaxed in the 1960s and the government began to guarantee above-world prices for agricultural commodities, along with liberal subsidies on fertilizers, pesticides, tube wells, tractors and improved seeds of agricultural commodities (Kuhnen, 1989). However, the policy was reversed again in the beginning of 1970s, and the prices of agricultural commodities were reduced to less than world levels, while those of fertilizers were tripled (Haque, 1993).

In the 1980s and 1990s, a different set of conditions determined the fate of agricultural price policy. Under the World Bank/IMF structural adjustment programme, the government subsidies on pesticides, seeds

and mechanisation were withdrawn and the subsidy on fertilizer was to be phased out. At the same time, in view of expected increases in the prices and rising profits on major inputs the sales of substandard fertilizers and pesticides, black marketing and under bagging became the standard practices. To avoid agitation from urban consumers and industrialists, the governments in power continued to maintain agricultural commodity prices well below world prices. This has been the conclusion of all the studies undertaken during the 1980s and the 1990s (Chaudhry and Kayani, 1991; Dorosh and Valdes, 1990; Ender, 1992; Faruquee, 1995; Longmire and Debord, 1993; and Punjab, 1991). Table 5.1 sums up the situation since 1979-80. It shows that, while nominal protection coefficients moved up and down randomly, the under pricing of agricultural commodities has remained a consistent policy. As a consequence, the resource transfer from agriculture (net of input subsidies and government expenditure on agriculture and water) has greatly increased: it was Rs. 11 billion until about the mid-Eighties, averaged around Rs. 20 billion during the second half of the decade, has been well above Rs. 30 billion during 1990/93, and reached an all-time high of Rs. 63 billion in 1994-95. And even these figures may be underestimates because they do not take into account the resource transfers caused by the imperfections of the input markets.

While the above resource outflows are large enough to dry up any investment potential of the farm sector, the story does not end there. In view of the faster increases in input prices relative to those of final goods, agriculture has faced low and falling rates of profits (Afzal et al, 1992) in sharp contrast to rising and substantially higher profit rates in the industrial sector (Punjab 1991). Given this state of affairs, it is only rational on the part of the marginal investor to disinvest from agriculture and redirect investible funds into the industrial sector.

In addition to the obvious repercussions for agriculture, the adverse price policy in vogue since 1980 has had deleterious effects on the landless and rural poor as well. A growth rate of 2-3 percent of agricultural crops is highly inadequate to absorb the growing labour force; the unemployment rate is thus likely to induce large undesirable

effects on income distribution and rural poverty. Low agricultural commodity prices also tend to accentuate poverty and income differentials among farmers for at least two reasons. First, the implicit taxation of agriculture in the form of low prices for agricultural produce increases the distortion of post-tax disposable incomes. Second, the impact of the increase in input prices on output is likely to be much worse on small farmers relative to big farmers because of the former's risk-averse character. It has been noted, for example, that small farms – those with a farm size of less than 5 acres – tend to reduce fertilizer input by 2.4 percent with each 1.0 percent increase in fertilizer prices in contrast to price elasticity of demand for fertilizer of only 0.6 percent on large farms (NFDC, 1994). It is thus not surprising that an unfavourable price policy in agriculture since 1980 was responsible not only for the slower growth of agricultural output but also for worsening income distribution and poverty levels. In order to stop the resource exodus from agriculture, government policy must be redirected at three levels. The government should not use agriculture to subsidise urban consumers and industrial inputs, and agricultural commodity prices must be raised to world levels. Undue support and protection to the industrial sector must be withdrawn and a fair competition in production should be restored. While the prices of major agricultural inputs in Pakistan are on a par with international prices, efforts must be made to stabilise them at current levels to avoid excessively deleterious effects on small farmers. The promotion of interaction among the crop-livestock sector can go a long way towards ensuring better access for small farmers to plant nutrients.

### 5.2.3 Input and Output Supply Management

In spite of the induction of the private sector in agricultural trade, government intervention in agriculture still persists. It was particularly noted in a World Bank study that government controls the external trade in major agricultural commodities (World Bank (1991). To make such controls effective, the government has often resorted to operating the procurement, storage and distribution of major agricultural inputs and commodities to varying degrees depending on the nature of the

**Table 5.1 Extent of Under-Pricing of Agricultural Commodities and Resource Transfers from Agriculture 1979-80 to 1994-95**

Years	Nominal Protection Coefficients				Gross Transfer from Agriculture (Rs. Mil)	Input Subsidies (Rs. Million) in Agriculture on:				Govt. Expenditure on Agri. & Water	Net Transfers (Rs. Mil)		
	Cotton	Wheat	Basmati Rice	Coarse Rice		Sugar Cane	Fertilizers	Irrigation Water	Govt. Credit			Electricity	Total
1979-80	0.57	0.57	0.28	0.47	0.38	12847	2455	297	116	-16	3121	4891	4835
1980-81	0.51	0.47	0.32	0.41	0.39	18665	2448	338	180	-88	2898	4956	10809
1981-82	0.68	0.44	0.29	0.43	0.50	18128	1750	416	265	-11	2444	6235	9449
1982-83	0.60	0.50	0.33	0.74	0.73	15029	1948	437	349	-100	2658	7297	5074
1983-84	0.50	0.37	0.33	0.73	0.77	19707	1466	661	524	-153	2498	6179	11080
1984-85	0.52	0.39	0.25	0.56	1.29	20546	1500	828	543	103	2974	6461	11111
1985-86	0.69	0.51	0.24	1.89	0.94	17313	2409	1005	448	16	3894	9024	4395
1986-87	0.76	0.43	0.24	1.96	1.25	20038	1284	1234	551	375	3444	7350	9444
1987-88	0.43	0.41	0.28	0.67	1.41	40162	1995	1352	785	1112	5259	8031	26872
1988-89	0.49	0.41	0.29	0.47	1.09	35059	2415	1154	1009	1139	5720	7379	21960
1989-90	0.34	0.39	0.33	0.41	0.47	72226	1257	1028	1207	1380	4872	8452	58902
1990-91	0.39	0.57	0.53	1.19	0.62	57614	1248	1545	1526	1625	6220	9857	41537
1991-92	0.47	0.52	0.59	1.10	0.74	51591	1191	2701	1744	1796	7512	9446	34633
1992-93	0.55	0.53	0.58	0.79	0.77	44354	810	3111	1993	1724	7639	11922	24793
1993-94	0.55	0.69	0.53	0.93	0.82	43543	805	2565	1980	330	5680	14429	23434
1994-95	0.40	0.60	0.66	1.01	0.59	87746	79	2938	1986	330	5333	19405	63008

Nominal Protection Coefficients represent the ratios of procurement to the corresponding import/export parity prices and net transfers minus subsidies and government expenditure on agriculture and water.

Source: Chaudhry (1995), Chaudhry and Maan (1991) and Chaudhry and Sahibzada (1995). Impact of the increase in input prices on output is likely to be much worse on the small farmers.

inputs and commodities concerned. For example, domestic and international trade in wheat involving the procurement of domestic supplies, imports from abroad, storage and distribution are totally in government hands. While private traders, millers and retailers do exist, the government – as the ultimate supplier of wheat stocks or buyer of their services – controls their actions and businesses. In the case of rice and cotton, public sector export corporations have been operational and dominate the business amidst the presence of a small number of private exporters. Sugarcane and maize are directly purchased from farmers by cartels of sugar mills and maize processors. Although a large number of retailers operate between the government parastatals and private cartels, their business activities depend heavily on their suppliers. Thus, trade in agricultural commodities is heavily monopolised. Under such circumstances, farmers in general cannot even expect fair prices. Prices will collapse in the face of even small surpluses and rise sharply if shortages begin to appear.

In the case of agricultural inputs private and public sectors share the production and distribution to the farm sector. The domestic and external trade in pesticides was deregulated and passed on to the private sector during the early 1980s. Experimentation with Integrated Pest Management (IPM) is in its preliminary stages. While the manufacture, import and distribution of tractors is largely in government hands, their spare parts and attached implements are available solely with the private sector. The import of fertilizers is undertaken by government agencies, while both public and private sectors are engaged in their production and distribution with rising shares for the private sector. Until 1990, the private sector's share in production and distribution exceeded no more than 50 percent but it increased to 86 percent by 1993-94 (NFDC, 1994). Like IPM, the Integrated Plant Nutrition System (IPNS) is also in its infancy as the preparation and use of bio-fertilizers awaits commercialisation. The evolution of new varieties of crops is a government job and is carried out as a routine activity.

Being an arid region, Pakistan needs a workable system of artificial irrigation, which is provided by a network of watercourses and canals.



The system is operated and managed by the provincial irrigation departments. In the fresh ground water zones, private tube wells are an additional source of water. In contrast to the rigidity of canal water supplies, the latter source is highly flexible and has assumed increasing importance with passage of time.

Most of the policies dealing with the management and supply of inputs and outputs cannot be sustained indefinitely. As a first step, costs to the government exchequer may be prohibitive due to the inefficiencies involved. There is a general consensus in Pakistan and elsewhere that regulated private markets are more efficient than government-operated marketing systems. Secondly, the public sector, through its vested interests, may suffer from widespread corruption and may not be looking after the welfare of the masses. The record in developing countries seems to be quite clear that parastatals are usually much more concerned with their own well-being and to a lesser extent, the welfare of the domestic consumer, than with the interests of the farmers or rural sector (Bale 1985). The evidence in Pakistan is equally substantive, arguing that public-operated systems of procurement, storage and food distribution – due to the vested interests of government officials – performed marketing functions poorly, inadequately and inefficiently (Alderman, Chaudhry and Garcia, 1988; Turvey and Cook, 1976; and Pakistan, 1983). The same followed from the recent evidence that shows that under-bagging, black-marketing and the sale of fictitious and substandard fertilizers and pesticides were common problems in Pakistan (Pakistan, 1993). Finally, the poorly managed supply systems may result in the total collapse of the agricultural sector. The case in point is the widespread incidence of water logging and salinity, which results from inadequate management of the irrigation system, lack of drainage and the unbridled growth of private tube wells in the fresh groundwater zones.

## 5.2.4 Agricultural Infrastructure

Rural and agricultural infrastructure can be physical and/or social. Physical infrastructure involves the development, maintenance and

rehabilitation of the irrigation network, the construction of all-weather farm-to-market roads, the development of research laboratories, research stations, and extension networks for the production and dissemination of new biochemical technology and setting up of private markets. Social infrastructure has to do with educational facilities, health services and electric supply. The development of the infrastructure should receive high priority as it could be accompanied by high pay-offs and prove to be instrumental in ensuring rapid progress in agriculture.

Many research studies in Pakistan have indicated that the rates of return on varietal research in the case of wheat, cotton and rice have exceeded 50 percent (Nagy, 1983 and Iqbal, 1991). Irrigation water is a critical input in agricultural production and the rates of return for the input in an arid zone like Pakistan would be close to infinity, as the availability of irrigation water would raise agricultural output from practically zero to some positive level. It is fact that Pakistan has a gigantic irrigation system but the available water supplies are sufficient to meet only half of the water requirements of the crops. The problem is compounded by frequent and erratic canal closure and the uneven distribution of water between canal commands, outlets and the farmers. It is important to note that the irrigation system, for lack of proper maintenance, has been suffering from gross inefficiencies with excessive losses of water as high as 40 percent.

Similarly, the farm-to-market roads are important in ensuring the smooth flow of produce between the farm and the ultimate consumers. The network of roads is also essential for the development of growth and excellence centres that promote the commercialisation of agriculture and change the outlook of the farm sector. Finally, the farm-to-market roads can go a long way in reducing the transportation costs of marketing agricultural commodities and of bringing in farm inputs.

Much like the farm-to-market roads, a competitive marketing system should ensure proper prices for agricultural commodities and raise the profitability and production of the agricultural sector. Despite their

importance, there is no corresponding emphasis in Pakistan on both farm-to-market roads and private markets. In fact, private markets for agricultural commodities were thrown into complete disarray in the 1970s with the promulgation of parastatal organisations, and have never been revived since then. Although the emphasis on farm-to-market roads in recent years has grown, a lot more than has hitherto been possible needs to be done. According to available evidence average road density in Pakistan did not exceed 0.19 kilometres per square kilometre in 1991. Leaving aside developed countries, this compares unfavourably with even the Indian Punjab figure of 0.45 kilometres per square kilometre in 1985.

Perhaps the average road density does not reflect the true picture of rural areas because of the heavy concentration of roads in the urban centres. The appropriate measure should therefore be the distance from a rural centre to a metalled road. An average distance of 6 kilometre from a village to a metalled road in 1988 in Pakistan points to the highly limited access of the rural population to all-weather roads (Qureshi, 1993).

As far as social infrastructure is concerned only about one-tenth of the nearly 50 thousand villages had electricity in 1993-94 (Pakistan, 1995). According to the 1981 population census, only about 17.3 percent of the rural population was literate (Pakistan, 1995). Similar conditions were found in the health sector. In 1993, there was one hospital bed for a population of 1550, a doctor for 1900 people and a dentist for the servicing of nearly 48 thousand persons. The gross inadequacy of social infrastructure speaks for the recommendation of a considerable upgrade in essential services.

### 5.2.5 Research and Technology

While outmoded cultivation practices breed stagnation, an incessant stream of new technologies is a *sine qua non* of a dynamic and self-sustaining agricultural sector. To generate an incessant stream of technology, appropriate investment in education, research and extension

must be made. In spite of the high pay-offs from technology generation especially through crop-breeding research, investment in this field in Pakistan has been abysmally low compared to most developed and developing countries. While such a state of affairs arises through lack of resources in a poor country like Pakistan, the scope of appropriate technology generation is further reduced by lack of coordination between various sub-sectors, the inefficiency of public sector research and extension departments and top-down rather than bottom-up emphasis in addressing research issues.

In spite of these fundamental problems, Pakistan has benefited from and continues to benefit from high-yielding varieties of wheat, rice and cotton, agricultural machinery and implements as well as biochemical technology. As such the earlier researchers were unconvinced of the sustainability of such a technological package because of their potential adverse affects on income distribution and poverty. Recent studies in this regard have argued to the contrary on the basis of solid empirical evidence (Chaudhry, 1997).

## 5.2.6 Population Growth and the Sustainability of Agriculture

Pakistan in the recent past had high growth rates of population. Although the population growth rate since the 1990s has fallen to 2.7 percent, it exceeded 3.1 percent between 1970 and 1990. In the wake of such high growth rates and scarcity of resources, it is increasingly difficult to maintain a sustainable growth path for the agricultural sector. At current rates of agricultural growth, which exceed no more than 2-3 percent per year, even a 2.7 percent population growth rate would leave nothing for investment in social welfare programmes except to maintain current levels of per capita income. In addition, sustainability is further threatened by growing land degradation, deforestation, and over-grazing of existing limited land resources to supply a rapidly growing population (Cleaver and Schreiber, 1991).

## 5.3 Aggregate Impact of all Policies

It is clear that Pakistan's agricultural policies and programmes have had a major impact on the character of Pakistan's agriculture. Some of these policies work in favour of sustainable agricultural development and others against it. It is, therefore, pertinent to look at the net effect of these policies on sustainable agriculture. The following historical record of Pakistan's economy in terms of growth, income distribution and poverty might be of help in this regard.

### 5.3.1 Historical Growth of Agricultural Production

Because of the primacy of the agricultural sector, the sustained growth of production in agriculture has been a cherished goal of Pakistan's economy throughout its history. The relative growth performance of agriculture and sub sectors is summarised in Table 5.2.

Two broad conclusions can be derived from the table. Firstly, the agricultural sector has maintained a long-term growth rate of 3.28 percent per annum between 1949-50 and 1996-97. The annual growth of the crop production sub-sector has been slightly lower – and that of livestock, wheat, cotton and sugarcane slightly higher – than the average growth rate.

Secondly, the growth pattern in agriculture has been patchy: it has been enviable during certain periods but disappointing in others. The table shows that the growth rate of value added in agriculture barely exceeded 1.0 percent per annum during the early 1950s and 2.1 percent during 1954-55 to 1959-60. The acceleration of growth initiated in the 1950s continued into the 1960s and agricultural value added exhibited an annual growth rate of 3.8 percent and 6.3 percent respectively during the first and second halves. Lacking any change in livestock sector, the accelerating growth rates were the result of rising growth rates of crop production. The first and second halves of the 1960s had respective annual growth rates of crop output of 4.8 to 8.2 percent. In the latter half of the 1960s rice, wheat, cotton and sugarcane had annual increases of 12.2, 9.7, 7.3 and 7.2 percent per year.

Table 5.2 Output Trends and Growth Rates of Agriculture and its Sub sectors from 1949-50 to 1994-95

Years	Value Added at Constant Factor Cost of 1959-60 (Rs. Billion)		Output (Million Tonnes)			Livestock Products (000 Tonnes)					Eggs (millions)
	Agriculture	Crop	Livestock	Wheat	Cotton	Cane	Rice	Milk	Animal Meats	Poultry Meats	
<b>A. Output Levels</b>											
1949-50	6.60	4.25	2.29	3.92	0.22	7.85	0.81	-	-	-	-
1954-55	6.95	4.32	2.25	3.19	0.28	8.84	0.84	-	-	-	-
1959-60	7.71	4.77	2.84	3.91	0.29	10.64	1.00	-	-	-	-
1964-65	9.28	6.02	3.12	4.59	0.38	18.67	1.35	-	-	-	-
1969-70	12.57	8.92	3.44	7.29	0.54	26.37	2.40	7800	554	12	583
1974-75	13.07	9.14	3.80	7.67	0.51	21.34	2.31	8173	622	34	1159
1979-80	15.83	11.20	4.42	10.59	0.73	27.50	3.13	9075	740	49	2094
1984-85	18.60	12.75	5.58	11.70	1.01	32.14	3.32	10856	980	99	4093
1989-90	23.26	15.29	7.51	14.32	1.46	35.49	3.22	14723	1350	157	4670
1994-95	28.21	17.74	9.91	17.00	1.48	47.17	3.45	18946	1806	308	5929
1995-96	29.70	18.81	10.47	16.91	1.80	46.23	3.97	18919	1916	335	5757
1996-97	29.91	18.40	11.15	16.38	1.60	42.00	4.30	20950	2032	385	5915
<b>B. Annual Growth Rates (%)</b>											
1950-55	1.01	0.33	2.35	(4.04)	4.94	2.40	0.73	-	-	-	-
1955-60	2.10	1.91	2.18	4.15	0.70	3.78	3.55	-	-	-	-
1960-65	3.78	4.76	1.90	3.26	5.55	11.90	6.34	-	-	-	-
1965-70	6.26	8.18	1.97	9.69	7.28	7.15	12.19	-	-	-	-
1970-75	0.78	0.49	2.01	1.02	(1.14)	(4.14)	(0.76)	0.94	2.34	19.42	14.73
1975-80	3.91	4.15	3.07	6.67	7.44	5.20	6.26	2.12	4.36	7.58	12.56
1980-85	3.28	2.63	4.77	2.01	6.71	3.17	1.19	3.65	4.94	15.10	14.34
1985-90	4.57	3.70	6.12	4.12	7.65	2.00	(0.61)	6.28	6.62	9.66	2.67
1990-95	3.93	3.02	5.70	3.49	0.27	12.89	1.39	5.17	5.99	14.43	4.88
1995-97	2.97	1.84	6.07	(1.84)	3.98	(5.64)	11.64	5.05	6.07	11.80	(0.12)
1950-97 (Average over the period)	3.28	3.23	3.43	3.31	4.33	4.06	3.27	3.61	4.84	13.16	9.72

Note: Figures in parenthesis point to negative growth rates. Source: Pakistan (1986 and 1996).

During the early 1970s the annual growth rate in agriculture plummeted to the historically low level of 0.78 percent. While crop production had a growth rate of 0.49 percent, the output of rice, cotton and sugarcane fell persistently. With the exception of poultry, growth was equally disappointing in the livestock sector. However, agricultural growth revived in the second half of the 1970s and crop output and livestock registered respective growth rates of more than 4.0 and 3.0 percent.

Since the 1980s, livestock and non-cereal crops have emerged as the prime movers of agricultural growth. Against a 3.28 percent annual growth rate for agriculture, livestock growth exceeded 4.77 percent and that of cotton 6.71 percent. By contrast, the respective growth rates of the crop sector and cereal crops were less than 2.63 and 2.0 percent. During the periods 1984-85 and 1989-90, the production of cotton and livestock witnessed a further acceleration and contributed to more rapid agricultural growth (4.57 percent) than in the previous period. Despite some recovery in wheat, the growth rates of sugarcane and rice remained very low. In the 1990s, growth rates fell further to less than 4.0 and 3.0 percent per annum respectively between 1989-90 and 1994-95 and 1994-95 and 1996-97. The high growth rates for the sugarcane and livestock sectors had a positive, and slower growth for cotton, rice and wheat a negative, effect on the overall agricultural growth in the 1990s.

### 5.3.2 Trends in Income Distribution and Poverty

The time-series data on income distribution and poverty are not as comprehensive as those for agricultural production. The Household Income and Expenditure Surveys can profitably be used to trace the changes in the patterns of income distribution and poverty. Table 5.3 presents the relevant data on inter-temporal income distribution and poverty trends in rural Pakistan.

It is clear from Table 5.3 that patterns of income distribution and poverty in rural Pakistan have witnessed considerable changes over time. The rural incomes became more skewed during the early 1960s.

Improvements in rural income distribution occurred during 1963-64 to 1970-71, as concentration ratios fell from 0.35 to 0.29. A reversal of this trend began in 1971-72, and rural income inequalities grew until 1984-85. Although rural income differentials narrowed down between 1984-85 and 1987-88, the Gini Coefficients rose respectively to 0.41 and 0.37, the highest ever recorded in Pakistan's history, during 1990-91 and 1992-93.<sup>6</sup>

Poverty levels exhibited more or less the same trends as rural income distribution, though with less abrupt changes. This is to be expected as poverty studies are based on expenditure that can be financed out of savings or borrowing. In 1963-64, poverty was widespread as more than 43 percent of the rural population suffered from varying degrees of poverty. The incidence of poverty fell consistently through the 1960s and was confined to 9 percent of the population by 1970-71. Relative poverty accentuated between 1970-71 and 1984-85 reaching a level of 21.1 percent. It, however, has tended to stabilise at around 20 percent in the late 1980s and early 90s (Chaudhry 1996).

There were at least 16.5 million rural poor in Pakistan in 1963-64. The number fell to around 11.0 million in 1968-69 and 1969-70. A sharp decline in absolute poverty occurred during 1970-71, but it has risen consistently since then with the result that the number of poor in 1992-93 was about the same as in 1963-64.

### 5.3.3 Environmental Protection

The protection of the environment has not been the prime consideration in Pakistan's agricultural policy. The main emphasis of policy has been the maximisation of agricultural output by promoting modern technologies and practices. As most modern practices depend heavily on purchased and in some cases on imported materials, equipment and chemicals, it has been difficult to pursue these practices indefinitely.

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<sup>6</sup> The sudden rise in Gini may partly be attributed to variations in the data used in the calculation of Gini Coefficients. Prior to 1990, the grouped data formed the basis of calculation but ungrouped household data were used for calculating Gini ratios for 1990-91 and 1992-93.



**Table 5.3. Income Concentration Ratios and Poverty Levels in Rural Pakistan from 1959-60 to 1990-91**

Year	Gini Coefficients Based on Household Income	Rural Population Below the Calorie-Based Poverty-Line	
		Rural Poor (Million)	As a Percent of Total Rural Population
1959	0.35	-	-
1961	0.36	-	-
1963-64	0.35	16.53	43.10
1966-67	0.32	-	-
1968-69	0.29	10.76	25.10
1969-70	0.30	11.40	26.00
1970-71	0.29	4.15	9.25
1971-72	0.31	8.82	19.19
1979	0.33	11.48	19.00
1984-85	0.34	14.33	21.10
1985-86	0.33	-	-
1986-87	0.32	-	-
1987-88	0.31	14.30	19.60
1990-91	0.41	16.06	20.60
1992-93	0.37	16.36	20.40

Source: Gini Ratios are from Pakistan (1996 and 1997), while the data on Poverty Levels are from Allauddin (1975), Ercelawn (1984) and Malik (1992).

Furthermore, most modern inputs have also been associated with unprecedented land intensification, pest attacks, greater insecticide use and above all falling productivity of land reflected in stagnant crop yields. By contrast, traditional practices tended to be environmentally friendly as they made extensive use of land resources, promoted crop-livestock interactions and used leguminous crops as an integral part of crop rotation. In fact many soil exhausting crops followed green-manured land.

Although agricultural policies in the past ignored environmental protection, it has increasingly drawn the attention of policy makers since 1990. For example, drainage of soils especially the horizontal ones has come to the forefront, and Pakistan has undertaken the construction

Table 5.4 Public Policies: Instruments, Aims and impacts on Sustainable Agriculture

Policy Instruments	Aims/Objectives	Impacts on Sustainable Agriculture
A) Structural Adjustment (Supply side)		
Privatisation	To delegate the private sector to provide greater share of goods and services which simultaneously increase competition and allocate resources efficiently	The undertaking of IPM and IPNS by the private sector is promising as well as the increasing role of the sector in various agricultural activities.  However, regulated private markets need to be developed over the government-operated marketing systems, which are causing distortions due to corruption, poor management and inefficiencies.
Deregulation	Removal of restrictions to trade, foreign investment and foreign exchange	Considerable government intervention in external trade continues in terms of procurement, storage and distribution of major agricultural products.
Liberalisation	Removal of distortions in markets	However, liberalisation has had a positive effect on growth and income distribution (distortion of other policies needs to be highlighted).
B) Agricultural Pricing Subsidies		
Commodity Prices	<p>Removing and phasing out of subsidies to remove price and budget distortions, while increasing efficiency/quality</p> <p>Lower prices (than world prices) will promote efficiency on farms and subsidise the urban consumers</p>	<p>Infiltration of substandard fertilisers and pesticides, black-marketing and under bagging.</p> <p>Drying up any investment potential of the farm sector; adverse effects on the landless and rural poor; inadequate growth rate to absorb surplus labour creating distortions in income distribution and poverty levels; affecting small farmers' disposable incomes and entailing lower growth and output.</p>

Policy Instruments	Aims/Objectives	Impacts on Sustainable Agriculture
C) Agricultural Infrastructure		
Physical	To increase the availability and efficiency of goods and services which have positive effects on growth, distribution and environmental quality	No relative gains on growth, distribution and environmental quality since there is a large distortion between appropriate and present levels of infrastructure development.
Social	To ensure supply of services that improve quality of life and contribute towards growth	Inadequate resource allocations and public-sector inefficiencies leading to stark distortions in quality of life and growth.
D) Research & Technology	To create and disseminate new technologies, which are based on appropriate systems of education, research and extension, in order to increase growth rates, income distribution and levels of poverty and quality of life	Lack of resources has been a major constraint as well as lack of coordination between sub-sectors, inefficiency of public-sector research and extension departments and top-down emphasis in addressing research and technology issues.
E) Population Growth	To ensure lower population growth with corresponding higher levels of agricultural production to provide investment in population welfare	High population growth along with lower production has entailed land degradation, deforestation, and overgrazing of existing limited land resources.

of left and right bank outfall drains along the Indus River for the disposal of saline water into the Arabian Sea. Integrated Pest Management (IPM) and Integrated Plant Nutrition System (IPNS) are emphasised to check the unbridled growth of insecticide and chemical fertilisers. Table 5.4 above provides a summary of national policies and their impact on sustainable agriculture. While the above measures relate to mainstream agriculture, the mountainous regions were largely ignored in government policy circles because of the uniqueness of their problems. Such regions are characterised by common property rights to

land, face problems of overgrazing and deforestation and derive livelihoods from subsistence holdings. Given the uniqueness of their problems, these regions required no less than a unique approach for development. Since these problems varied from place to place, a top-down approach to policy making is unlikely to work successfully in this region. These are some of the issues that Pakistan faced in deciding to develop these regions through community-based projects. The following chapter 6 depicts some of the successful cases of mountain agricultural development along with policy lessons to be learnt from them.

# Chapter 6 Creating Space for Local Realities – What Went Right?

## 6.1 Introduction

This section is predominantly concerned with the factors that we believe contributed to the emergence of our success stories. What do we consider ‘islands of success’ in sustainable agriculture-based rural livelihoods (SARLS) and what is the recipe for success? What is unique about our success stories and why do we focus on them? What factors led to the emergence of our islands of success and why? In this section we attempt to answer these as well as other questions.

Therefore, after providing a justification for the focus on Sustainable Mountain Agriculture, and a brief overview of mountain farming systems and livelihoods, we proceed to examine several converging factors that made the emergence of these cases possible. One of the factors under consideration – *a participatory development ethos* – is believed to be the foundation on which this success is built. In-depth description and analysis of the core elements and lessons emerging from our success cases will be dealt with in the following section.

We also present the profiles of our success cases by documenting four projects/programmes that have had ‘sound’ success in the promotion of sustainable agriculture in the Northern Mountainous Areas of Pakistan. These projects/programmes are respectively: the Aga Khan Rural Support Programme (AKRSP), the Kalam Integrated Rural Development Project (KIDP), the Provincially Administered Tribal Areas Project (PATA) and the Malakand Fruit and Vegetable Development Project (MFVDP).

To answer the first set of questions then, the selection of our success cases was formed at the first Reference Group Workshop. This was based on the following criteria of SARLS:

- Incorporate biological processes such as nutrient cycling and pest-predator relationships
- Optimise the use of external and non-renewable inputs
- Encourage full participation of producers and consumers in problem solving and innovation
- Ensure more equitable access to entitlements
- Make full use of local knowledge
- Diversify the production system
- Increase self-reliance
- Provide access to markets
- Include local and enabling external Institutions
- Are time and site specific

Set within the backdrop of an alternative development approach and taking into account the above selection criteria – Box 1 below – provides a working definition of sustainable mountain agriculture in a Pakistani context.

**Box 1: Working definition of sustainable mountain agriculture**

With particular reference to mountain specificities including inaccessibility, fragility, marginality, diversity, niche/comparative advantage and adaptation experiences, the efficient management of resources for continuously increasing the productivity and profitability of agriculture, while simultaneously improving the incomes, income distribution, employment, with maximum possible emphasis on the use of local resources. Moreover, enhancing the productivity of the resources, and improving or maintaining the quality of the environment.

## 6.2 Why Focus on Sustainable Mountain Agriculture?

The Northern Areas are Pakistan's watersheds; they ensure the supply of irrigation to the dry regions of the country. This demands that the efficient management of watersheds be crucial not only in supply of irrigation water, but more importantly to prevent the siltation of dams,

flooding, and landslides. These disasters have great economic costs and threaten the livelihoods of the entire nation. The Northern Areas' current situation, characterised by the highest population densities per cultivated hectare, the highest ratio of humans to land, and the greatest pressure to use the extreme marginal soils and slopes most intensively, requires urgent and foremost attention (NCS, 1992).

This region is rich in natural resources and is considered the storehouse of the nation's plant and animal diversity. This has consequently made the areas agriculturally diverse and a valuable site of traditional knowledge in Natural Resource Management. Despite this, the Northern Areas are primarily characterised as subsistence oriented, and the locals rely heavily on environmental resources such as fuelwood, fodder (from alpine pastures), and agriculture for survival. Coupled with the increased pressure on natural resources from population growth, the process of 'modernisation' has taken root. State institutions as well as customary regulatory arrangements are either non-existent, have broken down or become weak. Women have been deprived of their customary rights, and the poor have been increasingly excluded from access to environmental resources. Confronted with these dilemmas, emphasis needs to be shifted to a more personalised (integrated) approach to development.<sup>7</sup>

At a generic level, the government takes a direct financial interest in the well being of the mountain farmer, but significantly less interest when it comes to providing funds for watershed management, afforestation, and wildlife protection. In many cases, particularly for watershed management, the burden of responsibility for wise resource use falls on mountain farmers. They must respond in many ways that, not surprisingly, go far beyond improved agricultural management: stabilising soils, cultivating new 'niche' crops dependent on special soils and markets, and encouraging the young who cannot find local jobs to

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<sup>7</sup> A personalised approach recognises the need for an integrated, holistic approach, which takes into account the various interconnected factors into programme/project design. It realises that the circumstances faced by local communities are unique and multifarious, and for problem solving there needs to be a careful balancing act. For this purpose, our success cases employ a multi-sectoral (either multi-agency or for example AKRSP's single agency using a multi-sectoral approach) and learning approach to attempt to rectify the constraints faced by local communities.

migrate to the plains or beyond. Local conditions require that the government also focus on what Jodha (1992) terms mountain specificities, namely inaccessibility, fragility, marginality, diversity, niche/comparative advantage and adaptation experiences. An integrated approach (as pursued by our success stories) in which diversification of the local economy along with intensive agricultural development are part of the equation are perhaps the keys to this region.

Lastly, it is an opportune time to incorporate and develop the region in accordance with the SARL concept. Currently, there is a strong current influencing national policy on agricultural and rural development. The focus here is on scaling-up our success stories. This will have tremendous implications for development in Pakistan. Because, although we know what works pretty well at the micro-level, we still require that the emerging areas of political science and anthropology be geared to analyse the broader problems of factors explaining rural unemployment, the disintegration of the rural family structure, the impact of development processes on existing value systems and the political impact of democratic institutions. There is, moreover, a steady flow of conservation and development projects, including the Northern Areas Conservation Strategy, filtering into this region. And within the realm of these forestry, watershed, and biodiversity projects, SARLs can be incorporated and developed on conceptual, strategic and practical levels.

## Mountain Farming Systems and Livelihoods in Pakistan – An Overview

Although the altitude differences, temperature regimes, soils types and availability of water in the farming systems vary greatly in the mountain areas of Pakistan, livelihoods are specifically agro-pastoral. The Northern Areas comprise high altitude mountains<sup>8</sup> and almost desert like climatic conditions, where summers are hot and winters extremely cold. Despite adequate rainfall, timely availability of water and soil are

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<sup>8</sup> The Northern Areas comprise of three ranges that converge at one area just south of Gilgit. These ranges are the Karakoram, Hindu-Kush and Himalayan.



the major constraints to agricultural production. The combined area under forest and agriculture is only a few percent of the total.

This puts a huge constraint on the productive capacity of the resources, and land-holdings are typically very small, that is, fractions of acres. Mountain farming systems are, however, quite complex (see Box 2). Irrigation water is used, where possible, to grow traditional varieties of wheat and maize. In addition, vegetables and fruits are also grown. The main crops not only provide grains but are also an important source of fodder. Herds are also sent to pastures in the summer and provide much needed nutrition in the long winters when fresh food is not available.

The Northern Areas encountered food deficiencies till the making of the Karakoram highway (KKH). The highway was built for defence purposes, and has greatly increased accessibility. The KKH traces the ancient “silk route” connecting Pakistan with China, its strategic defence and trade ally. Additional food in the shape of grains has increased the use of animals resulting in the over-grazing of pastures and decreasing the naturally occurring broad-leaved deciduous trees. But the Karakoram highway has also produced numerous avenues for the locals, and trade and tourism is a developing industry. Men can now move down country in the winter and return in harvest season. According to a survey published by AKRSP the external inflow contributes about twenty five percent of the average household income.

In some of the other western valleys of the Northern Areas the relief is a bit flatter, and therefore, the availability of soil and forests is much greater. Broadly, these are divided into Swat, Dir and Chitral. Culturally, locals here tend to reflect the tribal systems of Afghanistan and Central Asia.<sup>9</sup> Since colonial times this tribal system has resisted British Colonial and Pakistani Governments, and hence, development in terms of service delivery mechanisms has not figured prominently. In many ways, the historical and cultural contexts and experiences of this region are quite unique and have very little to do with colonial South Asia.

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<sup>9</sup> This is where they are said to have migrated from.

### Box 2: Example of Agricultural Practices from Chitral

The people of Chitral demonstrated interesting land-use patterns. They manage to squeeze out two crops during their seven-month season. Wheat is planted by late October or early November and left in until it is harvested in May/June of the following year. Immediately after harvesting wheat, Maize is planted which takes till mid-September to harvest. Unlike capitalist farming, which seeks to achieve maximum output, this system alternately is maximum input based. Besides the two crops, the locals plant various fruit trees (apricot, plum, pear, loquat, walnut, cherry and apple) around the periphery of their farms and their houses. This provides them with basic fruit and nuts during the year, especially during the winter month when supply of food is limited due to Chitral being cut off by the closure of the Lowari Top pass. Furthermore, the Chitralis also grow spinach, cabbage, carrot, potatoes and tomatoes. The equitable distribution of land ensures that most households meet subsistence from spring to early winter; however, those that cannot do attempt to supplement their incomes with off-farm employment usually by migrating down country for the winter.

The Provincially Administrated Tribal Areas have fared relatively better than the other mountain areas in terms of levels of poverty. There are comparatively larger pastures, and timber export from the communal forests to the rest of the country have been a source of income for most of the locals there. In some of the lower lying areas of Swat, rice paddies are also cultivated, and the area has tremendous potential for horticulture. Agriculture is the mainstay of most people though, with a relatively lower reliance on animals. Technologies have spread further – and owing to the potential of the area – have led to the adoption of many varieties of vegetables, foods and HYVs of grains. Besides a huge variety of fruits (including apples, pears, apricots, peaches, persimmons) potatoes, peas and onions have been introduced in the lower lying valleys. Tourism is also on the rise as an industry because of the valleys' cooler climate, cultural attractions and scenic beauty.

North of all these valleys is Kohistan inhabited by the Kohistanis whose origins are not well traced. They still live in nomadic tribes, and their herds roam some of the only virgin forest in Pakistan. These tribes

sometimes travel almost halfway down country in winter. Contrary to the settled tribes, their mainstay has been nomadic pastoralism. Typically, in their own areas they move from hut to hut in families, and share the natural resources around them, moving up to the alpine pastures in the summer and down country in the winter, where their animals can graze. The land is not demarcated by area but rather by the productive capacity (mainly grazing and forests) around it. They still ride horses and carry arms and ammunition. Down country, they not only provide livestock to the settled “Pathans” from Afghanistan and Central Asia but are also involved in small trade. In peak season they also provide labour for winter harvests in exchange for grains.

## 6.4 Public Policy Failures or Public Policy Ignorance? Addressing Mountain Agriculture

The previous sub-section highlights the unique environment, livelihood strategies, and historical and cultural contexts of the region requiring a *differentiated policy context*. Yet the focus of agricultural policy in Pakistan has been strictly uniform: the production of crops that ensure food supply at affordable prices, and foster export earnings. The mountain areas have been seen to have a minimal economic potential in this respect, and hence, the development of mountain agriculture has remained outside the purview of national agricultural policy making. Part of the problem has been the rather uneven power relations (i.e., the proximity and political, economic and social clout of the large plain farmers) at work at the national agricultural policy level managing to downplay imperative issues such as mountain agriculture, and hence, these are kept out of the national policy context. Ignorance and insensitivity to this region’s reality has also been due to problems of access. However, the KKH has recently increased communications and mobility, which has led to the opening up of markets for land, labour and technology and contributed to the development of agriculture.

In the early 1960s, some attention was provided to the Northern Areas for reasons other than supporting agriculture. The watersheds of the Rivers Jhelum and Indus in the mountain areas started to attract the

government's attention to slow down the siltation of large dams such as Tarbela and Mangla. Afforestation, soil conservation measures on agricultural lands, and the planting of fruit trees were the major activities undertaken by these projects. The World Food Programme partially financed these activities.

Besides these major activities, government policy has not figured significantly in influencing mountain agriculture. Moreover, since these areas were formerly princely states or *Mirdoms*, government services were introduced here only in the 1970s and still remain quite scanty. The traditional systems of government, however, have either become weak or disintegrated leaving an institutional vacuum. It has been the involvement of development NGOs in this region that has opened doors for an alternative policy context for sustainable mountain agriculture.

More recently, the problems of landslides, flooding and their tremendous down country impacts have led to national policies for these regions. However, the context of forest policy, community based work and changes in property rights in relation to forests (especially the watershed programme reviewed above where the community-based approach was used for the first time in the Mountain Areas with incentives for farmers) have been left unexplored from a policy perspective.

## 6.5 Experiments with Integrated Development Programmes and Projects in Pakistan

This section discusses Pakistan's historical experimentation in rural development. By and large, the endeavours undertaken have inevitably failed. However, it is crucial to recognise and learn from failure. Part of the problem had been ineffective and non-transparent implementation of strategies. Yet, at another level, problems have also been in the realm of appropriateness of strategies within local historical and cultural contexts and realities. Some of the problems continue to plague

agricultural and rural development, and highlight the role of power and politics. We will document some of the major attempts in integrated rural development to elicit lessons from history that NGOs projects have learned and built on.

### 6.5.1 The Village AID Programme

The impetus for this first initiative, the Village AID Programme, emerged after a visit to Pakistan in 1950 by Mr. Karl Kraus of the United States Agency for International Development (USAID). Mr. Kraus emphasised agricultural extension to solve the production and marketing problems, leading to greater productivity and thus agricultural development and the generation of foreign exchange. In 1953, the Village Agricultural and Industrial Development (AID) Programme was initiated to tackle problems including inadequate productive systems, imperfect land tenures and defective irrigation, with the following ideals in mind:

- To create a spirit of self-help, initiative and co-operation among the villages for economic, social and political programmes
- To rapidly raise the output and income of the villages through better methods of farming and cottage industries
- To increase the community services available in rural areas
- To create conditions for richer and better life through social activities

The programme is generally believed to have been successful; however it was abandoned for political reasons. The following are the oft-cited problems and constraints with the programme:

- Inadequate capacity of village workers, supervisors and administrators;
- Coordination problems and rivalries between Village AID activists and some state departments;
- Overlapping of development programmes; and
- Leadership in the villages was imposed from outside.

## 6.5.2 The Basic Democracy System

In 1958, a movement (initiated by the military government) to dismantle the colonial administrative system and regenerate some confidence in the rural areas came to the fore. Before the British, it is said that the villages were the centres of power and wealth, and relative equality prevailed along common concerns and community lines. A majority of the people were convivial, self-confident, and relatively self-sufficient. The Basic Democracy System was seen as the way forward, and gave a new thrust to the programme of rural development. The programme, for the first time in Pakistan, involved elected representatives in the planning and execution of rural development projects and was seen to address local contexts and experiences. The official philosophy of the Basic Democracy System was to:

- Create direct contact between rural areas and the process of development, which originated in urban centres, and
- Serve as a channel of communication through which the desires; aspirations and needs of rural areas were to be transmitted to higher administrative hierarchy.

The Basic Democracy System and Green Revolution technologies coupled with the political stability provided by the military government achieved a breakthrough in economic development. However, the programme was terminated because of the following inherent failures, as Basic Democrats were given the responsibility of electing national and provincial members of parliament and the President:

- It became excessively politically oriented,
- The benefits more and more accrued directly to the Basic Democrats as leaders of the local communities, and
- The Basic Democracy Institutions did not permit participation by villagers in the preparation of plans and implementation of projects.

Equally important constraints and problems are the conceptually limited notions of community – *as a bounded spatial unit containing a*

*homogenous group of people having shared norms and interests* (Leach *et al* 1997b) – and institutions – *static, a-historical, inflexible, generalised and homogenous* (Berry 1989). The upshot of this argument is that it is equally naïve to assume that history can be undone, and that it was possible to return the rural areas to some historical ideal by wiping out the colonial administrative structures.

### 6.5.3 The Integrated Rural Development Programme

Integrated Rural Development was another programme designed by USAID. This programme emphasised a multi-sectoral strategy, and was initiated in August 1972 with the creation of the Shadab experimental project near Lahore. The conceptual and operational strategy of the Integrated Rural Development Programme (IRDP) sought the following outcomes:

- Maximum participation of the people through organised institutional arrangements
- Mobilisation of human and material resources to maximise agricultural production
- Decentralisation of decision making processes, planning and execution to provide a framework of effective and viable rural institutions
- An effective delivery system to ensure that benefits and services reach the target groups according to perceived needs
- Evolution of self-reliant and self-supporting institutions with built-in mechanisms for monitoring

The objectives of the IRDP in Pakistan were remarkably similar to the rural development programmes tried in other countries of the world. Increasing agricultural productivity, developing the village economy, creating employment opportunities, improving rural living conditions and ensuring an egalitarian social structure appear on almost every list of rural development programme all over the world. In the context of the Cold War, the overwhelming inclination at this time was that agriculture in developing countries might hold back industrial development, which, in turn, could feed the revolutionary socialist fervour.

Within a year, more than 120 *markaz* (centres) were established all over the country to implement the programme. Within the accepted framework, two regional manifestations of the Integrated Rural Development Strategy developed in Pakistan, one at Shadab and the other at Daudzia in NWFP. The Shadab centre headed by Colonel Sadiq Malik emphasised massive use of machinery, fertilisers, pesticides, and insecticides to raise production. This method is generally known as an 'Input Saturation Approach' in Pakistan. The Daudzia Centre, headed by Akhtar Hameed Khan of the Pakistan Academy of Rural Development emphasised peoples' motivation and 'Peoples' Participation' with a moderate supply of agricultural inputs. This approach is known as the 'Daudzia Approach' or 'Peoples' Approach' in Pakistani literature.

The government of Punjab followed the Shadab approach and eagerly sought machines, seeds, fertilisers, insecticides, and pesticides to increase production. The government of NWFP adopted the Daudzia or Peoples' approach by attempting to make institutional changes and organise cooperative societies to motivate people to solve their own problems. Sind Province remained caught in bureaucratic wrangling and did not develop any specific approach or direction. Baluchistan Province saw the IRDP like any other government activity, and established councils at the village, markaz, and provincial levels.

In comparison, Daudzia seemed more relevant for Pakistan. It sought peoples' participation, encouraged self-help, and minimised dependence on outside inputs. Manifest in the Daudzia Approach was also a mechanism to complement the indigenous knowledge systems with organised science and appropriate technology. This served to effect widespread distribution of agricultural innovation.

The IRDP also proved to be another frustrating experience in Pakistan. There was no systematic assessment of local needs. Coordination between the Rural Development Department and local line departments was very problematic. The reputation of local cooperative societies as cliquish and corrupt organisations was reinforced. Except for a selected few, farmers became poorer, and lost confidence in their traditional



systems. Consequently, the programme was abandoned in December 1977, and the Chief Martial Law Administrator promulgated a “New Strategy of Rural Development” on 3 December 1977. The local government system was revived in July 1979 to implement the rural development strategy.

## 6.6 Emergence of Personalised Approaches in Pakistan with reference to Sustainable Mountain Agriculture

In the 1970s, for the first time in the history of Pakistan, there emerged several initiatives undertaken by the government, local and international NGOs and donor and foreign aid agencies to involve local communities in conservation. This was partly due to increasing conflict between the government and local communities over the forest rights.<sup>10</sup>

Furthermore, as deforestation and subsequent soil erosion became significant problems in the upland watershed areas of Northern Pakistan, awareness of the failings of top-down and regulatory conservation was increasing and leading to increased conflict between local communities and government departments (Dixon and Perry, 1986). The Watershed Management Programme was the first of its kind in involving local people in conservation and attempting to improve their quality of life.

Moreover, as population growth put pressure on forests to supply local consumption needs of fuel and fodder, overgrazing and improper agricultural practices grew, and this promoted more agencies to introduce programmes for reforestation, improved water management and amelioration of the overall socio-economic conditions of the local rural population in these areas (Ibid, 1986: 301). The Aga Khan Rural Support Programme, with its comprehensive programme for integrated rural development through community conservation, has had a

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<sup>10</sup> This conflict is traced back to the Colonial government – Forest Conservancy Rules in Hazara - declaring all forests the property of the state, with concomitant rights to the locals and right holder to these forests.

### Box 3: Civil Society Movements in Pakistan – The NGO Scenario

During the early 1980s a new breed of NGO came into existence. Within Pakistan, two interconnected factors can be said to be responsible for this. First critics argue that during Z.A. Bhutto's regime, the Islamic way of life was being increasingly forced out and replaced more and more by modernisation and western traditions and values (Banuri, 1987). While the majority of Pakistani society will tolerate many shortcomings of the government, compromises on religious integrity are often never tolerated. Following the execution of Bhutto, the subsequent military regime of General Zia initiated a return to Islam. The regime's restrictions on freedom of the press, expression (including the arts) and a ban on political parties propagated certain constituents of civil society to rise and defend their civil liberties. This partially manifested in the creation of human rights type NGOs. As NGOs were a recent phenomenon and were seen as fragmentary civil society movements and not perceived of as a threat – as opposed to mass civil movement capable of being led by political parties – these organisations were not prohibited. Notable among these was the Women Action Forum (WAF). These movements and NGOs by and large have been initiated by and reflective of the more affluent and educated strata of society. This may partly explain their sustainability in Pakistan.

significant influence in this regard. Based on a similar approach, several integrated conservation and development projects (e.g., the Kalam Integrated Development Project, the Malakand Social Forestry Programme) employed the concept of community participation. These projects acted in collaboration with local community organisations of men and women to provide training, socio-economic benefits and incentives for better resource management.

#### 6.6.1 Failure of Public Policy and Civil Society Movement in the Mountains

Just as agricultural policy had failed to address mountain agriculture, national development policies, as a whole, have largely neglected the mountain areas. Hence with this disregard, and the comparative isolation of the areas due to inaccessibility, the region's development path significantly varied from the norm of the country. In this policy

vacuum, potential space existed for an alternative development path. The time was ripe<sup>11</sup> for the Aga Khan Rural Support Programme (AKRSP) to seize this opportunity. Because of its affiliation with Prince Karim Aga Khan, who is the spiritual leader of the Muslim Ismaili sect,<sup>12</sup> the local communities opened their doors to AKRSP. The government, although a bit wary, was in an uncertain position. First, the government had initiated the World Bank's Structural Adjustment Programme, which required the gradual withdrawal of the state and opening up of space for the private sector and NGOs to provide services. Second, the government was itself new to the concept of NGOs and saw them as patchy movements working in 'small islands' on poverty alleviation. Third, and reflective of the above two, faced with a worsening financial situation the government saw this opportunity as an effort on its part to address the region's development needs, and hence, did not interfere.

As soon as AKRSP showed its initial success, it entered, on invitation from the local communities, other parts of the Northern Areas and eventually spread to Chitral. With weak, broken down or absent traditional and state institutions, the Programme more and more began occupying a predominant institutional niche conferred by the state. As AKRSP grew in scope so did its stake and influence in agricultural and rural development, and the more success it achieved, the greater the following it gained with national and international audiences as a model for sustainable development.

### 6.6.2. Changing National/International Policy Frameworks and NGOs

The National and International Policy arenas were themselves in a state of flux. For example, During Bhutto's era (1971-1977), economic policy-making was radically oriented specifically towards social development and poverty alleviation. This regime, referred to as the

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<sup>11</sup> Participatory methodologies were to the fore, the government's concern for watersheds focused on the Northern Areas, the involvement of NGOs and donors as well as the needs of the local communities were part of the complexities involved at this time.

<sup>12</sup> The majority of the population in the Northern Areas are members of this religious sect.

Keynesian-Populist regime (Banuri *et al.*, 1996), is believed to have emerged for two reasons. First, in the context of the growing socialist challenge during the Cold War Era, it was an upshot of the expanding and violent reaction to the perceived injustices of 1960s economic policies (Banuri *et al.*, 1996). The second reason was the requirement that the agricultural sector should obstruct or become an impediment to industrial development.

The KP regime transformed the private and concentrated structure of the economy into a mixed economy through two populist reforms: nationalisation of manufacturing assets and land reforms. Approximately 30 percent of manufacturing assets and all banking and insurance units were nationalised, and even a new sub-sector of capital goods began within the public sector. Land reforms halved ownership ceilings to 300 unirrigated and 200 irrigated acres; however, only 2 per cent of the total area was redistributed (Herring, 1983).

With these reforms came a massive expansion of state expenditure on public sector investment, employment creation, consumption and production subsidies, and social services. For example, the share of development expenditure rose from negligible levels to 38 per cent while social services also rose from negligible levels to 5 percent. Increased expenditures, in turn, increased deficits and thus the expenditure on debt servicing. From a balanced budget deficits reached 9 per cent of GDP by the end of the regime's tenure.

This period was also significant for rural development as some major projects were undertaken with an integrated approach. However, despite the rhetoric and insistence on local or popular participation in decision-making, development proceeded with the usual top-down approach, and had the same western bias and ethnocentrism, which led to the failures of earlier structures. The approach also neglected or did not bear in mind prevalent local factors. Instead of utilising indigenous skills and values as a power to generate a vibrant society, the development strategies emphasised growth economics without taking the rural people into consideration or understanding their real problems.

The early 1980s saw another radical shift in the policy arena. This time the shift was towards the efficient workings of the market, and hence, the emergence of the World Bank's Structural Adjustment Programmes (SAPs). With this came various shifts away from populist goals and instead SAPs focused on improving economic conditions with the introduction of privatisation (the private sector providing a greater share of goods and services which simultaneously increase competition and allocate efficiency), deregulation (removal of restrictions to trade, foreign investment and foreign exchange), and liberalisation (removal of distortions in the markets).

This era, in turn, presented many challenges to public policy in Pakistan. For example, the private sector had suffered a severe setback after the nationalisation of the major sectors in the 1970s. The discouraged and demoralised private sector was neither in a position nor willing to fill the space created. Almost all the government controlled and centralised development initiatives were literally strangled, and the dwindling economy and financing of debt put further constraints on the ability of the government to finance development activities.

The Afghan War turned the attention of international communities towards this region, and with it the inflow of substantial development assistance. Regarded as the culmination of the Cold War, UN agencies, USAID and a host of bilateral donor agencies became very active in refugee relief and other development activities. Donor agencies stressed the need for strengthening the role of civil society, promoted to play a formative role in the development of Pakistan. Funding for development activities was also provided directly to NGOs to undertake activities that usually fell in the jurisdiction of the public sector. USAID, which at one time was providing sixty percent of all development aid to Pakistan, set up a Trust for Voluntary Organisations (TVO) in 1990. Many others, including the government, followed suit, providing a particular momentum to the civil society movements and resulted in a mushrooming of NGOs in Pakistan.

At this time, the debate on sustainable agriculture had already gained momentum after a review of the World Bank's Green Revolution project in the late 70s, which clearly indicated that the results were not sustainable and had many negative environmental impacts. As Sustainable Development gained popularity, there was a global trend to look at agriculture in a different manner. Some NGOs in Pakistan also incorporated sustainable agriculture as a part of their agenda.

### 6.6.3. The shift in development paradigm – conceptual framework for development process

Meanwhile in academic circles, there emerged a significant shift in development thinking. Academic arguments, citing field experiences from developing countries, exposed the blatant shortcomings of the blueprint, top-down approach to development and brought to centre stage the plight of the poor who were being increasingly marginalised. Now the call was for the active participation of rural communities in designing and implementing development projects. Taking a lead in advocating local participation, people like Robert Chambers and Norman Uphoff called for a reversal of development practice by putting people first and for seeing them as intended beneficiaries rather than as target groups (Chambers, 1983; Uphoff, 1985).

The role of the NGOs figured prominently in this approach, and governments were encouraged to allow these civil society organisations to develop. In Pakistan, successful lessons from India and Kenya using community-based approaches were being cited. The scope for development seemed tremendous and community involvement was essential for this unorthodox development approach.

In Pakistan, this paradigm was echoed in the development circles, for example, as AKRSP began to propagate its “philosophy of involving rural communities in their development for sustainable increases in incomes and evolving a replicable model for small farmer development.” Three of the four islands of success selected in this study are bilateral projects between the government of Pakistan and foreign donors, and

represent deliberate policies by the Pakistan government to build on the AKRSP model.

The context for the emergence of NGOs was, therefore, clearly set: the space for NGOs and donors to work in the Northern Areas for conservation and development, the failure of public policy to affect change, changing national and international policy frameworks, an emerging development paradigm and the emphasis and role of NGO and civil society. Disillusionment and frustration with past policies and policy-processes including lack of implementation, equitable distribution and participatory approaches to development made the inevitable path for development NGOs and donor projects possible. The lack of development funds and international institutions' influence had put the government in a position where it had to rethink the strategy on how to cater for the development needs of rural communities.

## 6.7 Profile of The Aga Khan Rural Support Programme

The AKRSP has been working in northern Pakistan since 1982 with the objectives of involving rural communities in their development for sustainable increases in income and evolving a replicable model for small farmer development. Its approach to participatory rural development is based on three tried and tested principles: organisation and cooperative management, capital generation through regular savings and skill development at village level.

AKRSP began its work in Gilgit district, then in the mid 1980s expanded to the Chitral and Baltistan regions. Later it moved into Astore valley of Diamer district and now AKRSP operates in all six districts of northern Pakistan.

AKRSP has so far organised more than 2,600 rural communities into village/women's organisations with 101,300 members, who generated Rs.210 million as their collective savings during 1994 and trained nearly 13,200 village level specialists in managerial and technical disciplines.

Within Pakistan, a number of rural support programmes are following the conceptual model evolved by AKRSP.

The Agriculture Section of AKRSP led the process of integration in AKRSP's response to the issues of natural resource management at the village level. The current strategic focus is on appropriate interventions, which not only enhance food security within the region but also exploit comparative advantage niches. AKRSP has developed packages for fruit and vegetable production, marketing, seed potato production, fodder improvement and increased maize and wheat production. More than 1,300 livestock specialists and 1,500 poultry specialists have been trained to provide services at village level. AKRSP has supplied 4.2 million plants, while VOs have planted 14 million plants from their own resources under the social forestry programme of AKRSP. It has developed a 'Women Catalysts in Environmental Change' package for the establishment of backyard fruit and forest nurseries.

AKRSP has recently been given the blessing of the World Bank after 10 years in operation.

## 6.8 Profile of the Kalam Integrated Development Project

KIDP is an area development project, covering the whole of Kalam and Behrain tehsils in the north of Swat, with the support of the Swiss Cooperation. KIDP started in 1981 as a forestry project and initially covered Kalam tehsil, till June 1987 when Behrain Forest Range was added to the project area. KIDP was concluded in June 1998, after 17 years. The project was conducted in four phases. The main objective of the project was to "improve the socio-economic conditions of the population in the project area through people's participation in forestry, agriculture and village development, taking into consideration the ecological, social, economic and institutional sustainability of all means and activities at all levels." The project identified increased population pressure, the change from subsistence to cash crops, increasing number of grazing cattle and the fast growing tourist industry as exerting heavy pressure on the natural resource base.



During 1993-95, the main focus of the project changed to include more focus on social organisation, through strengthening the village organisations, channelling income-generating activities, and developing a close interaction with the service delivery departments. The second important task was to streamline strategies related to various innovations in forestry, agriculture and human resource development. During the fourth phase of the project, the focus is on the following objectives:

- To create, support and strengthen participatory VOs to the point that they can assert their due right and avail resources from government and non-government institutions; i.e., to increase their bargaining power;
- To strengthen government line departments, directly via the Forest Department, the Forest Development Corporation, and Agricultural Extension, and indirectly to other government agencies and programmes;
- To bridge service delivery between VOs and government and non-governmental programmes; accustom all programmes to working with and delivering services to VOs; and
- To transfer technical knowledge, both productive and managerial, to farmers and project staff.

The project area of KIDP extended to 0.75 million acres and a population of almost 171,000.

## 6.9 Profile of the PATA Project.

The PATA project focused on an integrated approach to agricultural development. The project was a joint venture of the provincial government of NWFP and the Kingdom of the Netherlands since 1989, and it was phased out in June 1996. The PATA project followed a bottom-up concept of agricultural development (i.e. the farmer should be first and foremost in planning and implementation), and proposed the following objectives/project programmes:

- The Agricultural Development Programme (ADP) following an integrated approach of farming systems research, ‘client oriented’ adaptive agronomic research and agricultural extension (internationally known as the Farming Systems Research/Extension [FSRE] approach) and aiming at increase of agricultural production
- The Land and Water Use Programme (LWUP) aiming at the development and protection of land and water (both groundwater and surface water) resources for optimal agricultural use
- The Women in Development Programme (WIDP) to establish and integrate activities specially geared to address and solve the problems and constraints faced by female farmers (PATA, 1996)

For this purpose, Farmers Interest Groups (FIGs) are formed and motivated to become dynamic. These groups meet several times through the season and act as catalysts for their communities. Finally, the groups act as a broad-based interface with extension personnel. The major emphasis of agricultural technologies was on improving the technical efficiency (methods and timings) rather than on intensive use of external inputs.

While working through FIGs, PATA successfully developed many packages for sustainable agricultural development in this mountainous region. Its publications number hundreds, which provide guidelines for improving agricultural productivity and growing high value off-season crops for improving the economy of small farmers.

One of the major objectives of PATA has been to help farming communities to increase their agricultural income and productivity by developing irrigation facilities (mainly ground water) in the marginal rain fed areas in Malakand Division. The project has involved at least 100 schemes (both ground water and surface irrigation) with community organisations. The project has converted about 2,500 ha of marginal rain fed land into productive irrigated agriculture.

The water development scheme of PATA has created substantial opportunities for potato growing and other vegetables in the area. Since the operational and maintenance costs of these schemes are borne by the farmers, a change towards growing cash crops to cover these costs seems essential. Hence, both spring potatoes and autumn potatoes have emerged as potentially profitable crops for the local farmers. Similarly, over the last few years, the area under the tomato crop has increased considerably. At present, most of the farmers consider tomatoes as a cash crop of very high importance, and during *Kharif* many farmers would have 30 percent to 100 percent of their cultivated area under tomatoes. Onion has become another very important cash crop in the PATA region and the area under onion cultivation has been more than doubled.

As a result, PATA (particularly in Swat district) is now one of the major onion producing areas in Pakistan, and is playing a very important role in overall national supplies. Moreover, the cultivation of peas has become an important cash crop in the area (mainly concentrated in Khawazakhula).

Two key factors that contributed to the success of this project have been the training of farmers in growing improved seed of wheat and maize (more than 80 percent of farmers use improved seed varieties), and the capacity building of the Agricultural Extension Department in the participatory approach to agriculture development.

## 6.10 Profile of Malakand Fruit and Vegetable Development Project.

MFVDP is another joint venture of the Pakistan government with the Swiss government. The goal is to improve the income of small farmers by supporting their fruit and vegetable related activities. The MFVDP has, since 1988, developed innovative approaches to pilot development work in horticulture using the 'Project Venture' approach. A range of development activities in the Malakand Division were initiated with the

aim of understanding the marketing system, identifying marketing opportunities, and promoting production and marketing systems in the private sector to exploit such opportunities. The project embarked on market and farmer-oriented, ecologically sound research activities in five locales. Moreover, it considerably strengthened the Agricultural Research Station, North Mingora (one of the two major horticultural institutions in the NWFP Province) with training, equipment, infrastructure, mobility and more importantly a participatory approach to development.

The main aim had been on developing marketing cooperatives to create an enterprise capable enough to carry out marketing functions more effectively than the available alternatives. An excellent example is the Bara Mahmand Cooperative Development Society. The society arranges for its members the profitable marketing of agricultural products, provides agricultural inputs, provides credit facilities, and promotes educational facilities for the betterment of rural life. The society charges commission at 6 percent to non-members and at 3 percent to members. The society advances credit facilities to its members which exceeds millions during a fiscal year. It has successfully recovered 86 percent of total loan advances as compared to the Agricultural Development Bank of Pakistan (ADBP), which achieved only 62 percent recovery of its advanced loans.

Complicating the difficulties of transferring information to farmer is the fact that levels of formal education are low in Pakistan, which may increasingly limit farmers' capacity to efficiently use more complex technologies. Thus, institutional change in extension, private sector information transfer and rural schooling failed to keep pace with farmers' needs for better technical information, that can substitute for input use and accelerate the transition to the input efficiency phase of post-green revolution agriculture. This evolution of the information and skill system is a major challenge for maintaining increases in productivity and sustainability in the future.

Changes in institutions and policies have been important in addressing many of the sustainability issues discussed above. This is particularly so because new technology may be a blunt instrument for solving sustainability problems. For example, the depletion of groundwater or other renewable resources may be traced to inherent problems of managing common property resources. In solving such problems changes in institutional arrangements (e.g. property rights), may be more important than changes in technology.

Another project is in the making—the Malakand Area Development Project, with Asian Development Bank funding.

The following section will scrutinise these four case studies, as ‘islands of success.’



Kargah Valley, Giljit (apricots) (Photo: Steve Bass)

# Chapter 7 Personalising Development: Lessons from the field

The space created for a more ‘personalised’ approach to development has certainly taken Pakistan by storm. But what are the core elements of this approach, and why have they succeeded over and above ‘business as usual’ development planning? Is there more to the picture than meets the eye, or can we take this approach at face value? What have been the impacts of this approach to date? The purpose of this section is to take apart the constituent core elements of our success cases from the Northern Mountains. Though all of these elements together form a comprehensive whole, we want to highlight and carefully scrutinise these individually. These elements include: *Participatory Local Institutions, Enabling External Institutions, Equity, Gender, Resource Conserving Technologies, Sustainable Food Production and Linkages to the Local Economy*. This proceeding section, we believe, will shed light on the above questions as we present the complex of elements that comprise a personalised approach.

## 7.1 Participatory Local Institutions and Social Capital

### Constituent Elements

**Social Organisation & Collective Action** As the building blocks for development, AKRSP provided the quintessential model for social mobilisation and community participation. AKRSP and KIDP helped create grass root institutions called Village Organisations (VOs) that became the vehicle for development at the village and valley levels. As an incentive to organise AKRSP/KIDP used Physical Productive

Infrastructure (PPI) schemes to galvanise farmers and the residents of a village into group action. While MFVDP and PATA have taken on the Farmer Interest Groups (FIG) and Producer Groups formulations respectively. This has created immense awareness for social organisation and collective action to address issues like infrastructure development, natural resource management, and credit and human resource development. These institutions, more importantly, also serve to ensure collective action and participation in the design, planning and implementation of development activities. Participation has contributed towards the success of these programmes/projects by ensuring that the needs of the communities were addressed, a sense of ownership was developed for the work initiated by the project among its beneficiaries and the capacity of the communities was built to sustain the benefits of the projects once the projects came to an end. To ensure a broad-based institution (the V/WO, FIG) the projects/programme espoused fundamental rules to be always observed. At one level the organisation has to meet as a general body on a regular basis so that all members might review the needs and performance of their organisation regularly. For AKRSP and KIDP, all members must make savings deposits at their regular meetings. The Rural Support Programmes<sup>13</sup> (RSPs) today claim to have organised over 500,000 households in 18,000 communities. More importantly, once organised it is believed that these institutions will be a permanent feature of the Village and even take over some of the functions of traditional institutions.

**Participation – Rhetoric and Reality** If we need to learn lessons from these endeavours it is important to distinguish between the ‘public and private transcripts’ of these projects (Scott, 1992). The public transcript refers to the philosophy and objectives of the projects and the official view of their operations. The public transcript offers only a partial view of the process and is influenced by a desire to see success in equitable and sustainable development; hence, it obscures a fuller understanding of the

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<sup>13</sup> RSPs are in actuality NGOs, and, in Pakistan, specifically Government operated NGOs. Their titles and activities reflect the influence of the Aga Khan Rural Support Programme (AKRSP). Prominent ones to follow suit have been, National Rural Support Programme (NRSP), Sarhad Rural Support Cooperation (SRSC), Baluchistan Rural Support Programme (BRSP), and more recently Punjab Rural Support Programme (PRSP)



process. The desire to see success could be based on several factors, including personal interest, ethics, and keeping the ‘donors’ pleased. The hidden transcript is the ‘inside story’ of the informants<sup>14</sup> about the projects and emerges from prolonged contact with local communities. The public transcript of the projects and the private transcripts of the informants provide a more comprehensive picture of the process, and both transcripts’ contribution is vital at two crucial levels. At the national/international level, the contribution of generalised public transcripts have produced powerful policy narratives, which are instrumental in challenging status quo policy narratives (Roe, 1991). However, at the local level, the lack of private transcripts spawns simplistic notions of field realities, and hence, frustrates policy implementation. The policy narrative aspects will be discussed in Chapter 8.

The public transcript of these projects shows that grassroots institutions have been created that cover a wide range of areas. These institutions have ‘successfully’ replaced traditional institutions and manage local resources sustainably and equitably. The achievement of these institutions is considered to be phenomenal in diverse fields including infrastructure development, natural resource management, savings and credit and human resource development. It is acknowledged that the level of development of these organisations varies. Complex indices are developed to measure their success and failures on different scales.

Experience, however, has shown that this view of grassroots organisations sees communities as a unified, organic whole and fails to distinguish differences within communities. This view ignores how these differences affect resource management outcomes, local politics and strategic interactions within communities as well as layered alliances that can span multiple levels of politics. Furthermore, not only are these organisations simplistic and homogenising in their views of communities, but they themselves represent a very formal and narrow conception of what an institution is. Institutions are much more than formal structures such as VOs, rather they can be conceptualised as the

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<sup>14</sup> Informants (or Project Staff) often discuss these ground realities or practical experiences in safe contexts i.e. within their own groups or with groups they trust.

‘rules in use’ (Leach *et al.*, 1997), institutions are both ‘enabling’ and ‘constraining’ and play a pivotal role in mediating people’s access to resources and sustaining livelihoods (Mehta *et al.*, 1999). It is imperative to understand that at any given time, many institutions, both formal and informal, may act upon and influence natural resource management decisions, and that these institution may alter or even cease to exist over time. Consequently, VOs, for example, show limited ‘success.’ Some examples are as follows:

At Mastuj in Chitral the Village Organisations created by AKRSP successfully built an irrigation channel at one-tenth the costs that were estimated by the government’s irrigation department in mid 1980s. However, once the project was completed, the VO continued on the project documents as an institution. It, however, failed to perform the task of distributing the land and instead traditional leadership was involved in the process of land distribution. The VO performed no noteworthy function over the next decade and only functioned again when a micro hydro unit was installed by it with a grant from AKRSP. Similarly in KIDP Projects most of the Organisations that were highly successful in carrying out activities in collaboration with the project did not necessarily replace traditional leadership and institutions, which continued to perform their role.

At Koghuzi in Chitral there were an interesting number of Village Organisations created to deal with two different projects: AKRSP and the IFAD funded Chitral Area Project. AKRSP created two Village Organisations, which restricted themselves to Micro Hydro Units. Both of these have been functioning successfully for over six years now. The VOs created as multiple activity organisations restricted themselves to the micro hydro electricity field because that was their only interest. The IFAD-funded CADP project operated in the same area and created a new organisation to build an irrigation channel. Only those members of both the VOs created by AKRSP joined who had rights to the land coming under the new irrigation channel. Each Programme talked of the VO that it had created but the villagers used these VOs as institutions to deal with an external actor and derive maximum benefit from them in

terms of financial resources. Traditional institutions and elders of the community manage natural resource management issues in the village that involve building and maintenance of the irrigation channels and regulation of high pastures. Communities adapt to the language of external actors and derive maximum benefit from them.

At Yorjogugh in Garam Chasma Valley in Chitral, the Village Organisations and Clusters created above them have successfully taken over all functions performed by traditional institutions and taken up many new functions, which are needed to successfully deal with a modern economy.

In Gilgit, Village Organisations were created ignoring the traditional institutions by AKRSP. These institutions failed to take off. Instead they have recently been replaced by Dumani Cluster which is based on the traditional institutions.

The Aga Khan Rural Support Programme in Chitral, after operating with a single model of Village Organisation for over a decade, now recognises the diversity in the evolution of the Village Organisations and has tried to incorporate the changes into the way the programme presents its work. This has been described in a paper called “Rethinking Social Organisation.” It now talks about a diverse set of institutions rather than the single VO it used to emphasise. This can be called an attempt to bring the public and private transcripts closer. The diverse set of institutions it recognises are listed in Table 7.1.

**Sustainability and Village Organisations** What has been the experience of Village Organisations in the context of their sustainability? Project rhetoric emphasises that these institutions once created are likely to become permanent institutions at the village level. This kind of reasoning, however, ignores the fact that institution building is a dynamic process and institutions once created keep changing according to the needs of the beneficiary. Institutions that cease to perform a useful function cease to exist. Altogether, there is very little evidence that Village Organisations have a linear model of

**Table 7.1 A Set of Village Level Institutions in Chitral**

Name of Institution	Type	Level	Description
Village Organisation (Single Activity)	Grassroots	Lower	Broad-based membership, in a geographically contiguous area
Village Organisation (Multiple Activity)	Grassroots	Lower	Broad-based membership in a geographically contiguous area
Cluster	Grassroots	Higher	Comprising of a number of Village Organisations either single activity based or multiple activity based
Interest Group	Grassroots	Lower	Comprising of a number of members sharing interest in a similar activity
Network Groups of Interest	Grassroots	Higher	Comprising of a number of Interest Groups
NGOs	Intermediary		Accountable to those who created it (General Body or Board of Directors)

development. The Village Organisations in KIDP, and large parts of the AKRSP operated area came together and many, successfully, carried out different functions. Having done that they ceased to exist. This is also the case of interest groups that were formed under PATA and MFVDP. If one defines sustainability in terms of permanence of the institution one is likely to be disappointed. This experience is not very different from that experienced by the Inter American Foundation in South America. We must look for a different kind of sustainability at work at the grassroots level. The focus should instead be on building social capital<sup>15</sup>, which can not only be an end in itself, but is also a means of building livelihoods by enabling access to other forms of capital such as financial, natural or human (Bebbington and Perreault, 1999). However,

<sup>15</sup> Despite the on-going debate as to the exact definition of social capital, it can be said to refer to networks or social structures that serve a function for members within the network.

a caveat is necessary here. Social capital is not only positive, but can have negative manifestations in its function, i.e., it may effectively exclude certain vulnerable groups from access to the advantage of a smaller, more powerful group.

## 7.2 Enabling External institutions

### Constituent Elements

**Capital Formation and savings** The accumulation of equity capital is of paramount importance to the financial sustainability of the VO: this facilitates the entire savings and credit system. Capital formation by the VOs facilitates credit from AKRSP and KIDP on the basis that collective responsibility is taken for accumulating the savings and recovering the loans of its members, the savings of the VO being the security for AKRSP. Furthermore, making subsequent loans dependent on repayment of earlier loans prevents mass default. Increases in equity capital are motivated by linking a VOs borrowing to its saving in a ratio that is specified beforehand. In the case of PATA and MFVDP, capital formation is left to individual farmers. These projects believe in creating self-sufficient farmers who can capitalise on their own earnings.

### What have we Learned?

**Capital formation** was considered an important element of the strategy that was followed by AKRSP. At the time AKRSP initiated its operation it was widely believed that small farmers did not have access to institutional sources of credit because they lacked collateral. Savings were thus made an important ingredient of AKRSP's strategy along with organisation and skill development. Community Organisations have savings of over Rs. 300 million in AKRSP today. This has enabled small farmers to take credit from AKRSP on a large scale. However, it is interesting to note that today, collateral is not considered important for extending credit to small farmers, while good information and peer pressure are considered absolutely necessary. Membership of a Village Organisation provides this kind of information to the lending institutions. This raises a fundamental question: what purpose do the

savings serve? The villagers have not used the savings as a pool of capital for addressing important infrastructure constraints. Instead these savings have piled up in banks. This is one of the paradoxes of development but easily understood by those who reside in rural areas. If the savings of members are unequal and the benefit from an infrastructure project like an irrigation channel are also unequal, it is unlikely that they would allow their saving to be used for such projects. Oddly the savings model has been picked up many by other organisations and slavishly followed. Indeed one of the reasons explained by an Intercooperation study for the failure of Village Organisations in Kalam is the absence of a savings programme! This revelation comes at a time when many in AKRSP are questioning the validity of the savings programme. In the National Rural Support Programme the savings component has not been stressed as much as it was stressed in AKRSP. It is thus important to understand what capital formation has come to mean in this context and what purposes it serves. It is evident that savings which cannot be withdrawn or used for internal lending serve little purpose except explaining the saving habits of the people who have saved.

**Skills** This is done by skills development of an activist of the community in such specialised tasks as farming, banking, marketing, etc. for the benefit of the entire community. Moreover, practical demonstrations can reach large numbers of farmers on a regular basis. With the advantage that demonstrators get instant feedback from potential users. The project offers suitable training to farmers through the acquisition of knowledge of local needs, priorities, infrastructure, tenure, cultivation practices, credit systems and farm economics related to agroecozones. The purpose of this is to identify local problems and seek local and relevant solutions with the input of farmers to the prevalent problems. The project also recognises that for successful implementation as well as technical backstopping, staff training is an integral part of agricultural development.

Experience has shown that the capacity building of members far outlives the organisational models that are developed. The skills in financial management, poultry development, and horticultural practices are

internalised by members and are successfully used by them over the years.

**Access** An essential factor contributing to the project/programme's sustainability is that it not only provides necessary goods and services to local institutions, but more importantly, easy access to such goods and services. These may include access to extension services, inputs, credit, markets, information and infrastructure. Moreover, the government institutions responsible for the development of agriculture, namely the Department of Agriculture, Department of Agricultural Extension and Agriculture Research invariably have not adapted to the specific requirements of the project/programme area's farmers. Therefore, the integrated approach of the project, along with the institutional set-up to bring the relevant institutions in line with project's aims, has had positive effects on institutional co-ordination and access, particularly for the needs of the farmers.

**a) Access to Credit:** with the security of VO savings, AKRSP and KIDP underwrite loans from commercial banks. Transaction costs for farmers are reduced considerably because only the VO Manager needs to incur the cost of travel, etc. Alternately, MFVDP ensures credit in kind, and requires repayment after two years depending on the success of the intervention. PATA per se does not provide credit facilities, but initiates a small revolving fund; the farmer is thereafter left to seek his own credit facilities after the interventions.

**b) Access to Agricultural Technology, Extension and Inputs:** The approach used by projects/programme to introduce new technologies has been to develop packages and to promote them through programmes which include demonstrations, input supply and technical assistance. Staff from technical sections work with communities who are trained as specialists in a particular area of expertise, and who periodically receive refresher courses. The project follows an integrated approach that uses diagnosis, technology design, experimentation and extension in a participatory approach as the method for creating and supply relevant technology, extension and inputs.

**c) Access to Infrastructure Development:** The projects/programmes' broad-based approach has brought considerable development to

agriculture. The irrigation related PPI have expanded the land under command. PPIs investment is the entry point to the development effort, and is not just investment in agricultural productivity, but more importantly, in local institutions. Irrigation related PPIs are supplied to farmers with their relevant input (design, construction, finance, etc.). The project's responsibility is the technical, material and financial input. This aspect deals with the key bottleneck in agricultural development namely access to optimal water. Only MFVDP does not provide this facility because it co-ordinates its work with the relevant government institutions.

**d) Access to Markets:** the project/programme originally sought to assist local institutions in cooperative marketing. This has facilitated contacts with private wholesale buyers from down country. This facilitation role has received increasing emphasis and especially helped in the marketing of fresh vegetables. Furthermore, infrastructure development in the form of communications has had a significant effect by providing market products and markets. This has, in turn, facilitated the dissemination of information for production, processing and marketing of agriculture for local and national markets.

## 7.3 Sustainable Food Production

### Constituent Elements

**Subsistence Strategies:** Self-sufficiency and interdependence of crop cultivation, livestock husbandry and effective integration of mixed farming are the main characteristics of farming systems in Northern Areas. These are distinct survival strategies of the people of the Northern Areas, as they rely on the intermix of all available scarce resources. The project/programme's approach to sustainable food production is two-fold. At one level, they provide extension that deals with subsistence strategies, facilitated through social interaction with locals and learning about their cultural practices. Thus, the kitchen garden has played an increasingly important role in meeting domestic needs. Moreover, there is recognition of the inherent dependence on livestock and fruit trees, and training is provided in their optimum use.



**Commercial Production:** This is where the principles of small farmer development play an important part as collective action, access and skills intertwine and promote sustainable food production. The project/programme provides the appropriate technology for the commercial aspects. There is significant potential for high value cash, fruit and fodder crops in the region. To this end the role of extension has been the supply of inputs, transfer of appropriate agriculture technology and helping farmers in disease and pest control. The results thus far have been promising. Great potential for agricultural development exists in the region, which is endowed with rich resources.

**Flexibility:** One of the major keys to the success of these projects/programmes has been the ability to adapt to changing conditions and circumstances. The Monitoring and Evaluation Wings of these projects play an integral role in this. By monitoring the implemented project activities, the physical, economic and social impacts of these activities are assessed. Moreover, with reiterative planning, this information and analysis can be used in a manner to alter priorities or affirm project goals over the duration of the project/programme. Having this process is a key to meeting the needs of the local villagers as well as the projects/programme.

What have we learned?

Experience illustrates that our success cases have shown remarkable versatility with regard to personalising activities according to local contexts. The face-to-face contact with local communities and the recognition of local contexts, needs and aspirations makes adaptability and flexibility possible. This is beyond the realm of what any central government can achieve.

## 7.4 Equity and Gender

Constituent elements

**Participation** The projects/programmes emphasise broad-based participation, and equal access to the goods and services offered in

order to ensure that the benefits of all interventions accrue to the maximum number of villagers. Equity is taken into account by the use of specific packages that will particularly affect women and the resource-poor. By involving villagers in all aspects of project design, planning and implementation, an equitable and participatory approach to integrated development is facilitated.

In 1985 AKRSP, after being approached by rural women, developed an alternative forum (WOs), which organised women separately and provided a separate series of interventions for women. This has not only facilitated access to and focus on women (participation), but more importantly highlighted the role of women, in general, in development, and in particular, in Natural Resource Management. The experience of the Women in Development Programme of KIDP area has been that social organisation has been slow. This is due largely to the socio-cultural environment. However, with the passage of time, and with the realisation of women's role in development, the number of women's organisations is growing. The project services women in income generation activities, training in health and hygiene, primary education, skill development and awareness raising. PATA included a Women In Development Programme (WIDP), which seeks to establish and integrate activities specially geared to address and solve the problems and constraints faced by female farmers. This is a matter both of equity and participation. Similarly, the role of women in the rural economy became prevalent in the MFVDP region, and thus all interventions began to incorporate the needs, priorities, constraints and potentials of womenfolk in the horticultural sector.

What have we learned?

**Participation and Social Structures:** many of the ardent believers in participation think of it in terms of complete equality where existing social structures and barriers are completely broken down and everyone participates equally in decision-making. The Village Organisations and Community Institutions in the successful programmes that we studied show that these institutions are actually compromises between existing power blocks and that participation reflects the existing social hierarchies

in communities. So what implications does this have for participation? The point here is to recognise heterogeneity of interests as well as inequality between members of any organisation. The aim of any participatory activity should be to ensure representation of all stakeholders as well as to facilitate collaboration amongst them in the face of conflict – a shift in administrative focus (Cousins, 1996). This may attempt to redress social inequalities and minimise exploitation and hijacking of projects by the more powerful actors. In brief, participation has to be more focused and targeted, recognising the often-unseen stakeholders, and adapting accordingly. Beyond participation, we need to be conscious of different institutions (formal and informal) that play upon resource management outcomes. Different actors will call upon different (sets of) institutions that will affect their access to and control over resources. Often the most powerful institutions are informal ones, which establish hierarchies.

## 7.5 Resource Conserving Technologies

### Constituent Elements

**Specific Mountain Technology** Ecological and economic sustainability to a large degree depend on appropriate and distinct specificities of the biophysical and socio-economic environment. Through experimentation, demonstration and discussion, the projects/programmes have discovered that farmers adopt appropriate and specific technologies if they fit into their survival strategies and can be adapted to the ecological environment. People's participation and the role of the Agricultural Extension component of KIDP have had interesting outcomes in the development and introduction of appropriate technology. Therefore, the demonstration plots integral role requires an understanding of the effects of the latest cultural practices. Reliance on external inputs is low partly because of the quality of products available; thus local people have ventured into commercial seed production and rely much more on local 'natural' products.

**Local Knowledge** *Indigenous Knowledge* of resource conserving technologies plays an integral role in species selection (cereal crops,

vegetables, fruit trees, pest and diseases), spacing for planting of trees, planting techniques (dry land, water logged areas, saline areas and scree slopes) and soil renovation (farmyard manure, night soil, fallowing of land, summer ploughing, growing of legumes, crop rotation, composting and mulching). This knowledge thus presents options for creating appropriate technology based on the interface of local and scientific knowledge. Local knowledge of farming systems, and perceptions of local solutions play an important role in technology design and in the definition and adoption of practices.

## 7.6 Sustainable Agriculture and Linkages with the Local Economy.

### Constituent Elements

**Local Economy** Agriculture will remain of primary importance to local livelihoods for the foreseeable future. Therefore, improved agricultural productivity plays a central role in the projects/programmes' strategy. This approach is emphasised in improvements in production, processing and promotional methods. Agricultural productivity provides the impetus to rural economic activity. This is facilitated through the projects/programmes' principles mentioned above. The impetus for higher agricultural productivity as well as the emphasis on home-based agro-industry (bee keeping and poultry production are also important interventions) have had profound effects on the local economy. Moreover, attention to exploring or facilitating alternative means of income has not only increased the incomes of the people, but has created an alternative source of livelihood for the people, while relieving pressure from more marginal agricultural lands and diversifying the local economy.

Some effects are exogenous to the projects/programme. The advent of the Karakoram Highway was the case in point in the case of AKRSP. This has facilitated trade and tourism from down country Pakistan, and has contributed significantly to the creation of alternative employment and enterprise. Ecological, social and economic sustainability will however primarily depend on the incomes from natural resources as

long as the resource base is intact; locals will affect their livelihoods and quality of life either by their planned or haphazard landuse. Incomes should increasingly be spent on local development, and employment opportunities. In the case of PATA, MFVDP and KIDP the integrated and participatory extension approach in WIDP accommodates the creation of agro-based industries while uplifting the economic status of women. In particular their activities in livestock, vegetable seed production, kitchen gardening, post harvest management of cereals, and fruits and vegetable processing and drying provide the impetus for self-reliance and economic sustainability.

To conclude, there is considerable difference in the project rhetoric and what actually happens in the field. All the lessons that are transmitted from projects are based on the public transcript while the best lessons may be hidden in the private transcript. The matrix below (Table 7.1) is used here to summarise the policies of our success cases. This lists the policy options available to projects collectively and shows what impacts they have had on sustainable agriculture-based rural livelihoods. Following this, the next sub-section provides more in-depth information on the impacts of our success cases.

## 7.7 Programme/Project Impacts

### 7.7.1 AKRSP

This section is based on findings presented in the World Bank's evaluation of the AKRSP (World Bank, 1995) and Khan (1998).

**Economic:** Since the early 1980s there have clearly been positive changes in the incomes of households in the programme area. This is associated with expanded employment options for men in local urban centres and in down-country Pakistan and the Middle East, as well as the increased production and returns from on-farm activities, which are in part due to infrastructure such as the Karakoram Highway. AKRSP can possibly claim to have had some impact on the former by improving village access, but, as intimated earlier, its major contribution will have

**Table 7.2 Policies of NGOs**

Policy Instruments	Aims/Objectives	Impacts on Sustainable Agriculture
Collective Action and Co-operative Management ■ Financial ■ Institutional ■ Technical – (Research and Technology)	To facilitate collective action in order to promote participatory local institutional development, capital formation (in order to access institutional credit and plan development) and capacity building of citizen's and project staff in appropriate agricultural technology, marketing and infrastructure development.	For example, AKRSP has organised more than 2,600 rural communities into VWOs with 101,300 members, which generated Rs. 210 million as their collective savings during 1994 and trained nearly 13,200 village level specialists in managerial and technical disciplines.
Iterative Planning ■ Participatory Planning and Implementation ■ Monitoring and Evaluation	The ability to gauge and respond to the appropriateness of project interventions and altering interventions in order to adjust to the changing circumstances and conditions (this is more and more based on the balance between social, economic and environmental considerations).	The emphasis on participatory approaches to planning and implementation and thorough monitoring and evaluation has given flexibility to projects to alter and strengthen project objectives and interventions. For example, these projects recognised that the production of off-season vegetables would give them a comparative advantage over the rest of the country, and have thus made considerable economic gains.
Equity	To ensure the participation and benefits of project interventions to the maximum number of locals.	At one level equitable access to and focus on small farmers in mountain areas had historically been dislocated. Therefore, all projects working in these areas address this issue. At another level, when looking at the marginal groups in these project areas, an endeavour, through diversification of the local economy and gender-based equity, has been pursued.

Policy Instruments	Aims/Objectives	Impacts on Sustainable Agriculture
Gender	To understand the gender-based roles in development and establish and integrate activities that address and solve the problems and constraints particularly of women.	This has highlighted the role of women not only in agriculture but also more importantly in environment and development. All projects have designed specific packages and interventions in consideration of gender roles to optimise project strategies and interventions.
Integrated Development	To understand and plan development that is broad-based (or holistic) in order to establish and integrate interventions which go beyond sectoral issues i.e., the multi-sectoral development projects which highlight the social, economic and environmental aspects.	This along with the flexibility of projects has stressed the need to go beyond sectoral development to address the underlying issues in development. For example, all projects recognise that the success of project strategies inherently rely on the knowledge of social, economic, ecological and institutional factors which demand a multi-sectoral (integrated) approach to development. This has been highlighted with the increase of activities covering different dimensions of these projects i.e., agriculture, forestry, village development, education, marketing, etc.

been in agriculture. The higher cash income has obviously benefited rural families, but the changes have affected the functioning of the household unit, with specific effects on women.

AKRSP has significantly enhanced women's economic activities and increased their status within households (Kalleder, 1994). The opportunity to save money, to access credit and to undertake training in how to make better use of their resources have been important measures, as has the introduction of production packages specifically designed for women. The latter have included vegetable, poultry and nursery interventions, which have the potential to generate cash income.

An evaluation study of the Vegetable Introduction Package (VIP) was conducted in all three regions among a total of 210 women from 42

**Table 7.3: Rise in Per Capita Income in Gilgit and Chitral in real terms**

(Rs)	Pakistan 1982-83 1990-91		Gilgit 1982-83 1990-91		Chitral 1982-83 1990-91	
Per capita income	4,131	9,170	1,905	5,628	1,772	5,900
Proportion of (%)						
Pakistan pci	-	-	46	62	36	64
Real Interest (%)	-	26	-	94	-	89

Source: Bhatti *et al.* 1994.

WOs (Hussain, 1993). It was found that vegetable production increased on average by 111%, with the marketing of the vegetables increasing the women's income by 144%. In addition to household consumption, fresh vegetables were marketed locally or taken to nearby towns, while portions of the crop may have been dried and later sold. More than 50% of the sample in all three regions marketed some produce. Income obtained was used for such goods and services such as: education for children; purchase of household items for daily use, agricultural inputs; and savings at WO meetings.

The benefits obtained by women, however, have not been without cost. Women and children have traditionally assumed a heavy workload in the household production system. The changes, which have occurred in off-farm and migration, labour, in farming enterprise patterns, and in women's additional activities encouraged by the Programme, have added to women's workloads (Khan, 1989).

In general, the increase in women's ability to save, access credit, and bring cash into the household or, at least, to assist their male relatives more effectively in this process, has increased self-confidence (AKRSP, 1996). Through their scheduled activities in the WOs, they also engage more in long-term group and individual planning for the future.

**Social:** AKRSP has not been directly involved in the social service programmes to address health, education and nutrition issues. Most social service interventions pertain to government programmes with local and external funding and to NGOs, especially the Aga Khan Health



**Table 7.4: Household Income by Programme Area**

Region	Gilgit	Chitral	Baltistan	Astore
Family size	9.5	8.7	7.9	9.1
Irrigated Area (Kanals*)	30.6	26.0	30.1	36.1
Crops (percent of area)	37.0	47.0	43.0	42.0
Irrigated Pasture	63.0	53.0	57.0	58.0
Gross Value Produced (Rs.)				
Crops	16235	9884	9402	8137
Livestock	8264	4970	4996	10056
Fruits	2962	3406	3089	346
Vegetable	2413	2317	1862	528
Forestry	3218	5584	2362	272
Poultry	914	1480	386	269
Other	2596	279	613	8516
Gross Farm Income (GFI)	36602	27921	22710	28124
Farm Cash Costs	6845	3829	4483	9246
Net Farm Income	29757	24092	18227	18878
Other Household Income	23712	27241	10351	20916
Gross Household Income (GHI)	60314	54532	33061	49040
GFI as percent of GHI	61	51	69	57
GHI per capita	5628	5900	3617	5405

\* 1 Kanal = 605m<sup>2</sup>

Service (AKHS) and the Aga Khan Education Service (AKES). AKRSP has played an important role, however, in its creation of village institutions that can facilitate social welfare activities, and in recent years through its promotion of linkages between V/WOs and support agencies.

WOs have been actively involved with AKHS in their training of community health workers and birth attendants, largely in Gilgit and Chitral, and in linkages with GoP programmes for immunisations and control of iodine deficiency. AKRSP has recently started to cooperate with GoP in its Social Action Programme (SAP), which will link with VOs to provide water distribution schemes.

A direct impact by AKRSP has been in improving nutrition, which affects both health and productivity. Members of WOs are quick to

point out nutritional changes that have occurred in recent years. This particularly applies to increased consumption of vegetables, which have been part of AKRSP's VIP. Not only are more of the traditional vegetables produced through improved seed and better cultural techniques, but also new types of vegetables have been introduced. Improved poultry production, which has been taken up by 80% of WOs, has increased animal protein intake.

Education is essential for the improvement of community productivity and welfare as well as the younger generation if they are to benefit from the expanded opportunities created by economic development in the area. AKRSP has recently coordinated with GoP's SAP in primary education, where VOs actively participate in the establishment and maintenance of community schools.

**Ecological:** The approach appears to yield results as large tracts of wasteland are reclaimed, afforestation is carried out on old and new land and farm forestry is widely practised.

The highly integrated and complex nature of farming systems in the Northern Areas, and the changing socio-economic conditions of the region (rapid population growth, multiple uses of cultivated land and the emergence of alternative economic opportunities) have led to changes in the management of natural resources. AKRSP has shifted from isolated Sectoral activities to the creation of a Natural Resource Management programme, in order to implement a sustainable and integrated approach for conservation. This has led to 8 pilot projects in which V/WOs participate in integrated planning, resource appraisal and integrated extension thereby undertaking agriculture, livestock and forestry activities in an integrated manner. The programme also emphasises the use of local knowledge to find better solutions for better management of all resources.

## 7.6.2 PATA Project:

### **Economic:**

- More than half of the farmers (65%) reported that their welfare has increased due to agriculture; 75% of the target population reported improvements in living standards in a 1995 survey (PATA, 1996),
- Yields for major crops in the project area have gone up by 25% as compared to the impact survey conducted in 1993,
- The irrigation scheme developed for the farmers provides them a high rate of return, of 117%,
- Yield increases could be attributed to a higher number of contacts between extension and farmers and to a higher adoption rate of the PATA recommendations,
- Women are actively involved in the Scheme Development Process (washing places, growing of high value crops and fodder production).

### **Social:**

- The Scheme Development Process (PPI) has increased the participation of water user groups in the development and maintenance of the irrigation schemes,
- Farmers are managing the schemes themselves to use the irrigation water for the production of high value crops,
- Women's participation in agricultural development has increased, facilitating interaction with the project staff,
- There has been an increase in the gender knowledge of the male project staff, thus taking into account the gender related issues in the process of development.

### **Ecological:**

- The use of integrated pest management and the promotion of sound cultural practices as preventive measures, rather than simply the use of chemicals as curative measures, such as optimal planting distance, balanced fertiliser recommendation, etc. have been found to be more environmentally sustainable and effective,
- The introduction of mott grass and other fodder for crucial months in summer and winter were introduced to alleviate overgrazing pressures on hillsides, thus promoting fodder regeneration.

### 7.6.3 Kalam Integrated Development Project:

**Economic:** a substantial increase in income was brought about by the successful promotion of alternate sources of income; in particular the sale of horticulture crops played an important role. The project had a good impact on the diversity of farming systems, marketing awareness, and increased income from vegetable production.

The proceeds from the sale of timber (60% going to the local community) have been instrumental in improved livelihoods.

**Social:** Of the 4 'islands of success,' KIDP has from some perspectives had the least success, at least in terms of cost analysis. It is acknowledged that the local people's role should have been given higher priority from the outset, with better problem analysis and a stronger earlier focus on social organisation. Also, an exit strategy should have been planned from the beginning. However, KIDP has been more flexible as it began as a purely forestry project and branched into integrated rural development projects and addressed many issues while it learned from the field.

**Ecological:** Because of increased incomes from the introduction of off-season vegetables in the local farming system and the proceeds from the sale of timber, the quality of life of the local people improved considerably. Ecologically this, along with working together with government departments for almost two decades, has translated the active regeneration of the forests.

A recent study by KIDP, which was carried out by Intercooperation to look at impact of KIDP, had the following to say:

- That KIDP indeed did undertake a huge amount of activities,
- That some of the activities indeed had a major impact during the 17 years of project duration, and
- That only a few of the activities will continue to be felt, or have had an impact on the project area after mid 1998.

## 7.6.4 Malakand Fruit and Vegetable Development Project

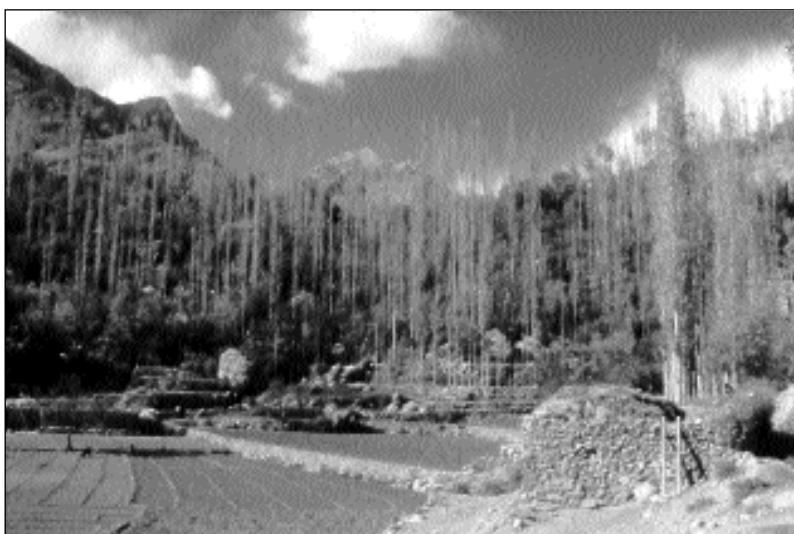
**Economic:** NWFP, with the special physiographic conditions and small land holdings of the MFVDP offers the most opportune environment for the development of high value agricultural pursuits commensurate with its natural endowments. Impact on the agricultural economy has been tremendous, especially in accordance with project objectives to develop its horticultural potentials (see table below).

All Vegetables	
Area under cultivation in Malakand Division, 1993-94	12.7% increase over 1992-93
Area under cultivation in NWFP, 1993-94	4.1% increase over 1992-93
Production in Malakand Division, 1993-94	83,021 tons, 10.3% increase over 1992-93
Production in NWFP, 1993-94	448,784 tons, 3.4% increase over 1992-93

- Increased production and the off-season nature of production have substantially contributed to returns to farmers. The benefit of increased productivity in horticulture, particularly in the case of vegetables, mainly goes to small and medium-sized farmers,
- Increasing numbers of traders and other intermediaries are getting involved in horticultural related activities. These developments are producing a budding private enterprise in fruit and vegetable plant nurseries, crop chemicals and other input/output related services.

### **Ecological:**

- Collaborative linkages have been established with other projects and programmes operating in the Division as well as with renowned institutions such as NWFP Agricultural University with its Education and Research Wings, Pakistan Agricultural and Research Council, International Institute for Biological Control at Rawalpindi and Natural Resources Institute of UK,
- The IPM programme intentions are to integrate all possible management techniques like cultural, biological, mechanical, physical, chemical, etc for the control of pests. However, this is a long-term process (about 3 years) so precise information is not available.



Hunza Valley (Photo: Steve Bass)

## Chapter 8 Scaling-up from Micro to Macro: Critical Issues in Creating 'Continents' from 'Islands'

Having elaborated on Part 2 of our research theme – core elements of success, lessons learned and impacts at the local level – we now focus on how to make these local lessons more meaningful. That is, we want to know whether there is wider relevance and applicability of these micro approaches, and can we attempt to scale-up these 'islands' to 'continents.' Thus far, Pakistan has initiated a move toward scaling-up participatory approaches; however, there are many issues that still need to be addressed. This section will, therefore, proceed as follows. First, we begin with what we believe can be a source of great confusion in development thinking, especially in the context of scaling-up from micro to macro levels. This part, therefore, deals with three sets of arguments: the existence of development narratives<sup>16</sup> at the policy level and the dangers with following such narratives in the field, the role of these narratives in policy change, and following from this, the contradictions implied in pursuing a development strategy based purely on a 'learning approach.' Second, this section explores several issues in scaling-up from micro to macro levels, namely the roles, opportunities and shortcomings at both levels and structures, and it will suggest a way forward. We also examine one such experiment by the Government to scale-up the AKRSP approach and see what implications this has for micro and macro-level planning and implementation. Finally, we touch upon some further issues in forging effective partnerships between the government and NGOs.

<sup>16</sup> According to Roe (1991), narratives are stories "with a beginning, middle and end, and revolves around a sequence of events or positions in which something happens or from which something follows."

## 8.1 Public and Private Transcripts – Why do they matter in Scaling-up?<sup>17</sup>

The public transcript or ‘blue print’ of our ‘islands of success’ paints an idyllic picture of communities working collectively as partners in development, accessing goods and services and being empowered by external ‘change agents.’ As previously mentioned, this simplistic notion of communities, institutions, and development processes obscures many hidden lessons; and yet, these simplistic narratives have been extremely powerful factors in rallying diverse actors around their themes and instrumental in policy change (Li, 1996).

The dangers here are when policy narratives slip into project conceptualisation and implementation. We may begin to conceptualise a personalised approach – from a broad outline of participatory approaches – yet usually what we have before us are public transcripts as a guide, and powerful messages of simplistic development narratives. More often than not, we take one such model and begin to apply it across the board. It should be no surprise then that what we have is the same ‘blueprint’ approach to development, albeit a more “participatory” one. Experience has, however, shown that public transcripts (or development narratives) if replicated only concentrate on uniform village-based structures, and this can spell disaster.

In order to counter this tendency, many favour learning from practical experience or using the learning approach to development (Hyden, 1983; Chambers, 1983). This approach necessitates a learning organisation, whose elements include organisational adaptability, flexibility, emergent design and continuous development rather than following a model. The significant lessons for rural and organisational development here have been that organisations and successful programmes, which are initiated in highly uncertain environments, need to begin with no blueprints in mind.

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<sup>17</sup> The arguments in this section are by and large based on Roe’s (1991) notion of making the best out of blue-print development.



What this argument fails to recognise is that policy narratives arise inevitably (Roe, 1991). This is because the local contexts from place to place are so ambiguous and uncertain in rural development that pressures to provide a “broad explanation, which can be operationalised into standard approaches with widespread applications” (ibid, p. 2) tends to sprout these simplistic narratives. Indeed they become necessary in explaining failures and uncertainties in development. We will always create narratives no matter what the local reality or indeed the ‘hidden transcript.’

Confronted by this, our aim may be to modify narratives and use existing ones in a better way. Put differently, we replace bad narratives with ‘counter-narratives.’ The point is not whether they reveal all aspects of institutions, communities and development processes, but whether these simplistic counter-narratives can challenge the hegemony of equally simplistic status quo narratives, and hence enable change at policy-making levels.

So to make a change at the (national) policy-making level, narratives need to have a dual quality to be successful. First, there is a need to create narratives at the national level to explain complex local realities at micro/local level in order to be able to have widespread applicability. Second, its success lies in its powerful, simplistic message that policy-makers can understand and adopt. Challenged by uncertainty of a more complex approach, a risk-averse policy-maker will rely on the simplistic status quo narratives.

What we should gather from here is that it is apparent then that narratives and learning approach are not mutually exclusive. Therefore, one cannot just use the learning approach and expect to find the solution. It is imperative to recognise that narratives or public transcripts will always arise no matter what approach is used at the local level. So instead of attempting to eliminate blue prints and narratives, we need to try and make these blueprint narratives more reflective of the hidden transcripts of local realities.

## 8.2 Using Development Narratives for Policy Change in Pakistan

At the networking and policy advocacy level, development narratives have also tended to be remarkably influential especially when perpetuated by notable personalities like AKRSP's founding General Manager, Shoaib Sultan Khan.<sup>18</sup> This is where AKRSP's public transcripts along with demonstration – selling the successful message – have been instrumental in advocacy and making the right contacts. Development practitioners, bureaucrats, policy-makers, donors and visitors were, from time to time, invited to the Northern Areas and shown different projects and introduced to community groups.

This interaction has also given rise to close relationships between the Aga Khan Foundation<sup>19</sup> and organisations like the World Bank and other multilateral donors. Backed by these organisations, the result has been powerful narratives and tremendous demands on Pakistan, from both within and internationally, to scale-up on this success. Moreover, the vulnerable economic situation of Pakistan further compounds the scenario and compels the government to accept advice from these international actors.

Within Pakistan, development narratives have been equally instrumental. For example, the initial grants to NRSP from the government were made possible by the support of the then Finance Minister Mr Sartaj Aziz, who has worked with IFAD and appreciated

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<sup>18</sup> His reputation in the development circles in Pakistan is one of a charismatic leader with unusual ability to make people share his vision, and his aggressive pursuit of goals. Shoaib is a disciple of the late Akhtar Hameed Khan who made his name with the Orangi Pilot Project in the slums of Karachi. Shoaib is articulate, understands how the Pakistani establishment works and how you can move about within it. Besides his own leadership and a highly talented team that he led, this success was also because of the long history of cooperative effort that was prevalent in the Northern Mountains of Pakistan and which has often been underestimated in the success of AKRSP.

<sup>19</sup> The objective of AKF is to promote social development through philanthropic activities in the developing world. AKF is non-communal and is committed by charter to assisting in the struggle against hunger, disease and illiteracy throughout the world. It seeks to use its human, financial and physical resources to innovate with new ideas, "grassroots" development concepts, organizational and managerial structures and practical technologies and cost-effective techniques that have broad value and utility in resolving generic problems of development primarily in developing countries of Asia and Africa.

the importance of solidarity groups and lending to the poor through innovative credit programmes. Similarly politicians who are very keen to see results in a short time have been impressed with the workings of AKRSP where the level of accountability and efficiency were considered to be high. Parallel structures, which were not based within existing government structures offered a chance to work efficiently and effectively and show quick results. It was not surprising therefore that these ideas were picked up and led to the establishment of the Punjab Rural Support Programme (PRSP). The Sarhad Rural Support Corporation (SRSC) in NWFP was also the brainchild of Shoaib and USAID, which was trying to find some solution to the seemingly intractable problems of agriculture and rural development in Pakistan.

Not surprisingly then with this intense influence of development narratives came a subsequent change in policy. At the structural level, this situation has given birth to the Government Operated NGOs (GONGOS). This policy of by-passing its own structures is also an acknowledgement by government that policy is more than just good intentions, that its own structures were not functional, and that making policy with current institutional structure was not viable. In NWFP the provincial government established SRSC to replicate the success of AKRSP on a wider scale. SRSC was given a contract to organise communities for extension work in the province. Similarly, the National Rural Support Programme, the Baluchistan Rural Support Programme and the recent Punjab Rural Support Programme demonstrate the willingness of the Government to take a new direction in its development policy.

### 8.3 Government vs. NGO Approaches – Recognising the Gap in Scaling-up?

It is apparent that recent counter-narratives have induced the Pakistani Government to embrace a shift in its development policy and structures. Yet the question remains, how to bridge the gap between micro and macro approaches? The critique of the government's macro approach has been that it was not tailored to the needs of the different geographic

regions. The institutions were inherited from the British and their structures and standard operating procedures are still founded on the colonial traditions. The faces change but the machinery remains the same. This structure only allows a top-down, authoritarian and inflexible approach towards development although its objectives and needs are constantly changing.

The extension agenda of the Agriculture Departments is communicated to the farmers through the extension workers and augmented by mass media. Use of radio, television and posters has had some positive effects, but has also been instrumental in the overuse of chemical fertilizers and pesticides. The mass messaging – or a broad application of a generic idea – does not meet the local needs of sustainable development.

The extension workers are the direct (interactive) link of the government departments to the farmers. But they too prove to be ineffective in supporting sustainable agriculture. They are geared towards carrying forward a preset standard agenda dictated to them by their superiors. Their extension activity is led by an aggregate plan made somewhere in a far off city. There are no reverse feedback loops for the planners to consider, and they work only with the aggregate production figures. There is also no mechanism to make a change in the plans, because the budgets devised at a much earlier stage must be strictly adhered to and any deviations are not allowed. All unspent allocations have to be returned to the national exchequer at the end of the financial year. Such a set up leaves very little room for flexibility. Personal initiative is also not present in the system, because of the general dissatisfaction caused by meagre salaries, benefits and budget allocations.

NGOs on the other hand enjoy relatively more freedom. NGOs employing a participatory approach work in close contact with the local communities and emphasise that all planning is done in consultation and based on the demands of these communities. Iterative planning through an in-house monitoring and evaluation system functions as an essential element of these projects and programmes. Community organisations at the field level help set and reset priorities according to the changing external and internal needs. These organisations provide

the missing link between the extension worker and the farmers in the Government extension services. This, however, does not preclude that a certain NGO, employing a generic model or simplistic notion of communities, institutions and development processes may not be successful at all. In fact, as mentioned in Chapter 7, NGOs may further create distortions and inevitably fail.

NGOs have a better endowment of resources as they rely on donors for funding. The number of people that each social organiser/mobiliser caters to is also much smaller than the extension staff provided by the government. Using participatory methodologies, being in close touch with local farmers and beginning to understand and appreciate local contexts raises the awareness of the farmers and the service providers. This has resulted in better service delivery and good customers. The downside to all this is that AKRSP is a very expensive model however, as a first lesson it was very important for policy in Pakistan.

Another area that the NGOs have filled is the human resource development. They have been able to attract highly qualified and foreign trained personnel at market prices.<sup>20</sup> At the same time, they usually have a human resource development component that gives ongoing need-based training to both the staff and the community. The government departments usually depend on their training institutes that are usually understaffed, and sometimes do not even have enough budgets to maintain their facilities. They end up with outdated, fixed curricula that cannot cater to the changing spatial and temporal needs of sustainable agriculture.

When considering the relative merits of governments and NGOs for service delivery, a fundamental question arises: are we asking government to think and work like an NGO, or are we asking for the building of more effective NGO-government relationships? Suffice it to say that both the government and NGOs need to significantly build capacities and structures for effective relationships.

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<sup>20</sup> Keeping in mind the on-going arguments of generic models and simplistic assumptions, highly qualified or foreign trade does not necessarily imply better project conceptualisation or implementation.

#### Box 4: Successful Organisations or Successful Policies

One way of looking at the success of the Rural Support Programme approach is to look at them as successful organisations. These are organisations that have a clear vision and mission. Their organisational structures are based on simple and flexible systems and procedures. They have, at times, been capable of responding effectively to the needs in the field. Policies that do not work in another structure work relatively better when implemented through them. A good example is the micro credit programme of NRSP. They have been able to reach a very large size of households, unlike agricultural credit programmes run through other public sector organisations. Similarly their repayment rates are also very favourable. This raises a fundamental question. Are we talking about successful policies or successful organisations? It was observed in the Malakand Fruit and Vegetable Development Project that the working relationship between the Project Management, Research and Extension Department was very cordial and they all worked as a team. Interaction with the staff based at Mingora who were involved with these projects show that the incentives were there which could be used to motivate staff in different departments. When the same project was taken to scale and the incentives not available the relationship broke down totally in the Provincial Horticulture Project. One of the reasons for failure of policies is that we do not get the incentives right for people implementing them.

The Pakistan Poverty Alleviation Fund (PPAF) that supports RSPs and NGOs has also been created as an autonomous organisation. The former Finance Minister who served in the Federal Cabinet during 1980s and 1990 has stated that for the record that PPAF was designed to operate outside bureaucratic and political control because policy makers learned their lessons from several years of experience.

### 8.3.1 Mountain agriculture: NGOs and government role in research and extension

Another example of adjusting to scales is the government's policy for research. It targets major crops like wheat, cotton, rice and sugarcane, which are grown mainly in the plains. Mountain agriculture is neither mentioned, separately or otherwise, in the agriculture policy documents and five-year plans, nor do the major research centres have specific agendas for the mountain areas. The only mountain specific applied

research has been confined to the use of early maturing varieties of crops in the mountain areas. Once again, since the extension service is sketchy this experiment did not have a visible impact.

However, when relationships were forged between KIDP, PATA and MFVDP and government research institutes better results were obtained with community organisations. Owing to the comparative advantage of the mountain areas, off-season production fruit and vegetables have been a resounding success in these areas. Rapid growth in horticultural production (Malakand, for example, now produces a large proportion of the nation's onion supply) has taken place in the virtual absence of conventional policy interventions (such as subsidies or price controls), building on the area's strong comparative advantage. As participatory approaches were used, applied research and extension were almost simultaneous. The focused research has also brought considerable income to these areas. The reason for this success is the meaningful collaboration of the community, to develop a cropping system that is sustainable. This was coupled with collective marketing efforts that were scaled-up according to the production levels.

## 8.4 Constraints in NGOs and the NGO Approach for Effective Partnerships

There are currently around 6,000 NGOs in Pakistan, of which approximately 200 could be described as mid-level. With the relative success of the NGOs there are still many problems. Most NGOs are still very young and are going through their teething problems as institutions. These NGOs are also mostly donor dependent and are unable to sustain themselves in the long run.

The success of the NGO approach has also been limited and is yet to evolve further. Although NGOs have made a successful entry into rural livelihoods, their exit strategy has not been very successful – indeed, should they have an exit strategy? The entry points have been essential infrastructures or even flood relief and then the programmes have moved into sustainable agriculture and related issues. Most community

organisations have done well (on a limited criteria of success) but not surprisingly the results after the end of the project period have not been so good. The social organisations tend to disintegrate, pointing to the fact that the subsidies may have been, after all, the strongest binding fibre of the institution. Post-donor survival of NGOs is a big question in Pakistan, and some are concluding that regular external inputs may in some cases be required indefinitely.

At a certain level, inflexibility can also be an attribute of NGOs who seem to have not adapted to local contexts by recognising local politics, heterogeneity and power dynamics in project design and implementation. Power, as a common occurrence in any community and which plays an intrinsic role in structuring people's relationships, is not taken into account by NGOs. Village organisations may be hijacked by local leaders and the membership of VOs "appears frequently aligned by factional allegiance around such leaders" fuelling enclave animosities (Parkes, 1999). Moreover this inflexibility manifests even in the best forms of development programmes such as the AKRSP, which may unwittingly be socially corrosive in organisationally fragile communities, because they tend to usurp functioning institutions of local resource management (Ibid, 1999).

NGOs have been very aggressive, and sometimes successful, but have in the process vexed the government, which sees them as parallel governance structures and a challenge to sovereignty. Government and local communities may see them as culturally subversive and a base to further the agendas of western donors. This causes a lack of collaboration and defeats the purpose of sustainable development. Such suspicion or hostility may be attributed in part to the fact that the NGO sector is not formally organised. In 1993, the Ministry of Social Welfare drafted a bill to regulate the role of the NGOs in Pakistan. It could not be passed to become an Act because, among other reasons, there was strong resistance to the clause that gave the District Commissioner the authoritative powers to cancel NGO licenses. Due to political instability and many other important issues the Bill has not been redrafted or presented to the legislators for voting.



NGOs, being small, have many advantages but are not at a level where they can take a broader outlook on development at the national level and set their priorities. The NGO sector, by and large, is tackling social development in a piecemeal manner, where it lacks co-ordination and focus. Just as the government has failed to look into sustainable agriculture at the micro level, the NGOs are not in a position to tackle the issues at a macro level. This direction, however, comes from the development policies of the donors. These strategies are the prime motivator of the areas and direction of the development activities that the NGOs undertake. A question that begs asking is whether donors' priorities are any better or in fact relevant?

Accountability in the NGO sector is another issue that Pakistan has to address. There has been a problem of fake NGOs, which appeared during the mushroom growth period. The donors have now started monitoring the NGOs they fund, but there is still a lack of a proper system that can be implemented on a national level. This would be feasible only after the NGO bill is passed to give the government a framework against which to monitor progress. The public's perception of NGOs (like their perception of their government) is rather low. When

#### **Box 5: Accountability and NGOs**

One issue that is emerging in Pakistan is the accountability of large NGOs. These NGOs attract huge amount of funds and at the same time they are accountable to no one. For instance the Aga Khan Development Network gets funding amounting to US\$ 85 million dollars over a period of five years to be spent on a population base of about a million and a half. The RSPs have been able to attract huge funding from public sources. Who are these institutions accountable to? At the moment they are only accountable to their Board of Directors. It is not surprising that questions about their accountability are raised regularly. Large NGOs are emerging as a new phenomenon in South Asia and serious questions about their accountability are being raised. Even in the USA some of the largest and best non-profits have been accused of serious breaches of trust and their leadership has been changed because there were serious accusations of abuse of authority made against them. How can large NGOs ensure that this does not happen in Pakistan?

asked, “Do non-profit organisations make an important contribution to empowering people” 56% of Pakistanis say “no” (HDC, 1999). Larger NGOs are always picked up by donors, because of their established credentials and proven management. Small community organisations, which may be voluntary but have excellent grass-roots capacity, are discriminated against.

Another major factor to be considered when we talk about taking these Programmes to scale is that as they grow in size, they could become inflexible and bureaucratic. How can organisations, which derive their reputation because of their flexibility and small size, retain those qualities as they grow?

## 8.5 Governance and Constraints to Scaling-Up the AKRSP Model

To date, NRSP has been the largest example of the broad application of the participatory approach model (based on AKRSP) in the rest of Pakistan. Although it has had limited success, the broader institutional framework that it operates under is the main constraint to mainstreaming the approach. As an NGO it has faced resistance from the traditional line departments. Such a situation does not lead us to make judgements about its effectiveness, as NRSP was restricted in its interventions in certain political regimes and it is difficult to assess how much household income improved from their involvement as opposed to the mainstream development investment in the areas. Studies at NRSP also do not lead to conclusive results, as it is still a bit early to make an assessment of the impact.

Besides duplication of the governments existing framework in the country, the cost of this approach is also questioned. At AKRSP the costs were understandable to the extent that it was the breeding ground for the approach used by OPP in urban slums transformed into a rural scenario. It is also very expensive to operate in the area and professionals had to be highly paid to work in such arduous conditions. As far as building social capital as the vehicle for development is

concerned, at OPP the cost was very low because the philosophy used volunteerism as the basis for development. However, the return in investment in social capital has definitely been paid off by the fifty percent increase in the per capita income of households (due to AKRSP) and that is comparable to the returns on investments by the government departments in Pakistan. So theoretically, the approach may be feasible. The need for investment is much larger than Pakistan can afford at the moment. The scale is a much larger scale although slightly offset by the fact that the need for investment in basic services may be much lower than that in the highly marginalized Northern Areas. NRSP's operational costs and estimates also tend to prove this point.

In light of the above this clearly is an either-or situation when it comes to determining the institutional framework for implementation of the approach. The need for investment is too large for NGOs to spread it all across the country. While the government has the necessary network and the approach has been tried and proven, the capacity of the government to implement in the current resource starved situation is in question. The line departments are neither structured to undertake such an approach nor have the trained personnel to utilize it. For the approach to be mainstreamed the whole approach to development has to change. It has to be localised and linked to whatever local social capital is available and enough professionals have to be made available on the Government's side. The current devolution scenario may take us a step closer to this but building capacities of the entire staff and managing the change in service delivery process is a challenge that would be hard to surmount.

If the approach is used in the current set-up then it has very little chance of being successful. The effect of Government control in a new institutional environment is already visible at NRSP. The extent of natural evolution, influenced by local conditions, customs and numerous other factors is not as highly visible at the RSPs, as it was in OPP and AKRSP. The investment in social capital is somehow not showing results in the rural plains. The trap of a blanket "blue-print" is visible at NRSP. The practice is being followed but the principals have

been diluted. The approach need not necessarily replicate the interventions, but rather the need is to replicate the people that were able to make the changes in different way according to the needs of conscientised people. It is also to be seen whether it is at all possible to train an Akhter Hameed Khan. People who had a vision and the moment they were freed from bureaucratic bindings created institutions that changed the lives of people that they lived among are few, although the opportunity has been provided to many in the RSPs and numerous other donor projects that are not as effective as the ones chosen for the study.

### 8.5.1 Working with Line Agencies

To form effective partnerships, one of RSP's assumptions is that they work in partnership with the Government Line Agencies. As has been shown in the case of KIDP and MFVDP and many places under NRSP, a very effective and meaningful relationship can be built up with Line Agencies, if the right incentives are given. There is very little attention given to understanding procedures and formalities which are important in building up of a long-term mutually beneficial relationship with a line agency. Too much attention is given to assumptions and not to analysis. Is there an attempt to understand how partner line agencies learn, innovate, change policies and working procedures? For instance NWFP governments normally operate with Non Development Plans and related budgets, which set the priorities for the staff. Budgets here cover staff costs only. The creation of new ideas and innovations is delegated to the domain of "projects" with their Development Plans and Budgets (PC-1) and Annual Development Programmes (ADP). Projects remain islands, and activities will die off with project closure, unless proven innovations are transferred into the regular line agencies activities (Non Development Plans). The formal procedure for this process is the Scheme of New Expenditure. It is seen that in building relationships this aspect is often forgotten. The close relationships at the local level are thus either personal or based on incentives that are available to the RSP or the Project.

#### **Box 6: Social Activism and Large NGOs**

Can large NGOs be involved in social activism? This is a big question. Large NGOs are very visible as organisations. Their visible structures like buildings, vehicles and staff etc., are all scrutinised by different actors who could face criticism from them in their social activism mode. This makes them very vulnerable and open to attack. A fundamental question can such organisations play a social activist role? It is clear that the RSPs cannot perform this role.

### **8.5.2 Who mobilises the grassroots?**

The RSP approach emphasises that grassroots institutions need to be created by mobilising the people at the grassroots level. For this it is important that District Support Organisations are created at the District level, which will be involved in mobilising the people. The RSPs believe that NGOs would never be able to do this because they are small and lack the relevant experience, and for this reason emphasise the creation of District Support Organisations. NGOs, however, tend to be critical of this kind of thinking and believe that the RSPs' approach lacks social activism and does not address the real causes of poverty.

This is one of the reasons that smaller NGOs oppose the RSPs being provided funds from Poverty Alleviation funds for establishing District Support Organisations all over the country. They believe that the RSPs do not address structural issues that create and perpetuate poverty. The RSP response – while missing the point – has been that poverty can only be addressed by tackling it on a large scale rather than addressing it in small islands.

Once the grants were made there has been no serious attempt to question the validity of this approach until recently. A paper written by the Chief Economist of NWFP and widely circulated seriously questions the giving of public funds to the RSPs. His contention is that they create parallel structures that undermine government systems. He also questions the impact of these programmes, which he claims have not been seriously evaluated and suggest that they should restrict themselves to a role as NGOs and compete for government funds with other

NGOs. He also states that as these Programmes become large in size they pick up many of the negative attributes of bureaucracy and, unlike elected bodies, do not face any accountability.

The Rural Support Programmes will have to show a high degree of visible impact if they have to retain their popularity as important vehicles for development. At present their most visible contribution has been in the field of credit distribution. Credit, unlike the infrastructure projects, which were so visible in the Northern Areas, does not easily show impact.

The Provincial Conservation Strategy in the North West Frontier Province was developed through a process of intensive consultation and dialogue between stakeholders. But when it has come to implementation it seems that there is no ownership of the process. As a consequence the Strategy does not have any owners. The government is not implementing it. Indeed the question often being raised today is whether the process was participatory. This is like re-inventing the wheel, because the issue is not whether a strategy can be developed through a participatory project but instead an acknowledgement that no matter how participatory we are, the problems of implementation can never be understood at the conceptualisation stage.

## Chapter 9 Synthesis and Conclusions

For policy proposals to have a genuine effect there must be corresponding institutional alternatives. Moreover, there is a need for formal policy that includes elements of the following:

- Defining how to agree and record the long-term goals of varied stakeholders
- Dealing, in an orderly and transparent way, with tradeoffs between objectives and conflicts between stakeholders
- Anticipating and planning changes in a climate of increasing uncertainty about e.g. socio-economic needs and resource capabilities
- Sending long-term signals on how stakeholders will be held accountable

The aim of this final summary section is to propose alternate policies within the framework of the constraints within both the local and wider political, economic and institutional environments in Pakistan. The social and political distances between local actors on the one hand, and national interest and policy makers on the other, has meant that the decisions of local organisations (especially NGOs) and projects are often at odds with national policy priorities. National policy decisions frequently derive from macroeconomic priorities, or from the concerns of a limited number of dominant stakeholder groups. As a consequence, these national policies do not always favour other, less powerful stakeholders; or they favour certain rural areas while prejudicing others.

Lessons from the ‘islands of success’ certainly depict key insights for the PTW-SARL’s policy and institutional alternatives. The integrated approach of these projects/programmes highlights the need for a holistic approach to agricultural and rural development, which balances the source of tension among social, economic and environmental factors affecting agriculture. This complex of factors emanating from our islands of success are respectively: institutions, sustainable food

production, flexibility, equity, gender, resource conserving technologies and linkages to the local economy. We highlight the following lessons for policy and institutional purposes.

## Lessons learned

- Community participation addresses the varied spatial and temporal needs of sustainable agriculture. There is a need to create, support and strengthen participatory local institutions to the point that they can assert their due right (particularly in planning, monitoring and implementing interventions) and avail resources from government and non-government institutions, increase their bargaining power, and serve to maintain ecological protection. Community Participation is a complex process and we must desist from seeing the communities as a single small homogeneous group. If we plan to work with communities the need for flexible institutions which do not have preconceived formulas needs to be emphasised. The parts of this paper, which emphasise the difference between the rhetoric and reality of participation underscore the need for the learning, approach to deal with communities.
- Local institutions can bridge the gap between adaptive research, extension and farmers, and can network and co-ordinate all programmes working with and delivering services to local institutions.
- A holistic approach to development as support to rural livelihoods, linking agriculture to livestock, forestry and environment is required for sustainable agriculture. The difficulty of a holistic approach in a country where the Line Departments are long established must not be underestimated.
- Strategic partnerships between NGOs and government at both the policy level and in the field can work effectively.
- Capacity building for Agriculture Departments in participatory development is needed. Government line departments – the Agriculture Department and other government agencies and programmes -- must build their capacity to support sustainable development of agriculture. The importance of the right incentives



must be emphasised because unless the right incentives are provided it is unlikely that any amount of training in participatory methodology is going to make any difference.

- There is a need to remain flexible through periodic monitoring and iterative planning to achieve optimal results.
- Equity in the delivery of goods and services, particularly to the resource poor and women, from various external institutions will ensure broad-based participation and benefits accruing to maximum number of participants.
- There is a need to recognise the role of men and women in economic and social arrangements, and whether they deprive, or do not take into account, women's access to or rights over natural resources.
- Synergy can be created between local and technical knowledge to come up with viable and specific technologies and solutions to ecological problems.

## Constraints

- A disorganised donor-driven NGO sector may lack long-term direction.
- There are too many players and contradicting implications for sustainable agriculture in policy making.
- There is a lack of synergy in policy-making institutions to come up with a goal-driven implementable strategy.
- There is an inability to implement policies because of strong players like multinationals producing fertilizers and pesticides.
- A lack of available resources constrains the widespread application of the NGO approach.
- There is politically motivated "Adhocism" in policy making.

## Policy Implications

- An NGO Bill is required to delineate the geographic and hierarchic (in a vertical integrated system) role of NGOs and to make them accountable.
- There is also a need to recognise that there are not many good and genuine NGOs that can take up this function.

- A strategy is required to phase out the government in ineffective functions and its replacement by a focused and strengthened NGO sector.
- A National Sustainable Agriculture Policy is required, with a Sustainable Agriculture Network and Secretariat
- Capacity building of government staff on participatory development is essential.
- A review of resource allocation (including subsidies) in agriculture and their efficient utilisation is necessary -- private sector versus farmers versus urban population, as implied by input and output prices of agricultural commodities.
- A system for appraisal of all relevant policies for possible effects on sustainable agriculture and monitoring the effects is required.
- To avoid the boom and bust cycle of donor-driven development projects, there should be a hard look at alternative funding mechanisms such as community trust funds.

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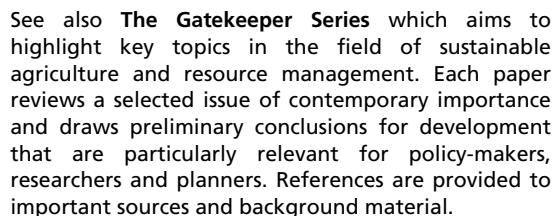
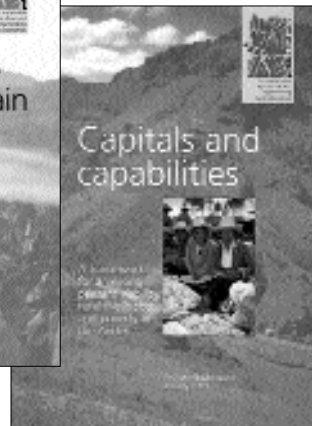
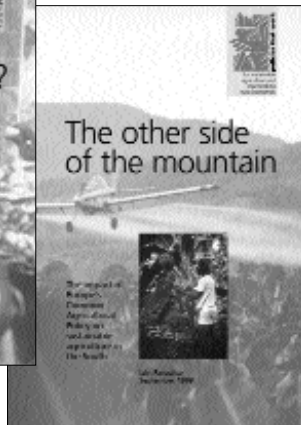
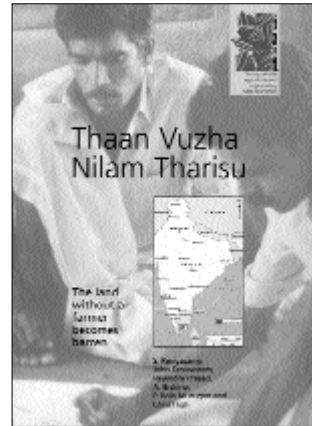
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