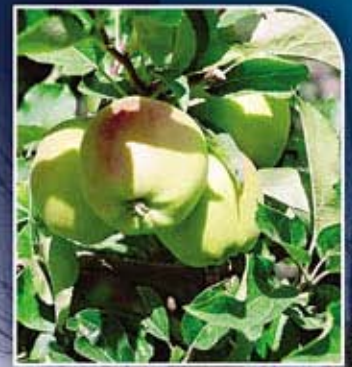
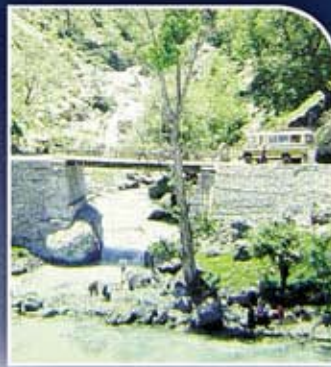
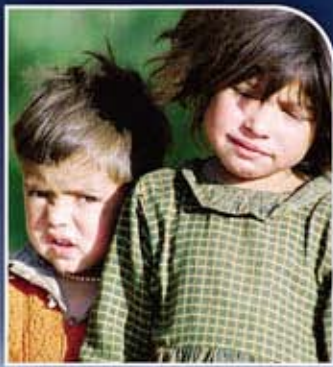


Strategy for Sustainable Development



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Finalised and edited by:

Scott Perkin

Resource person:

Hamid Sarfraz

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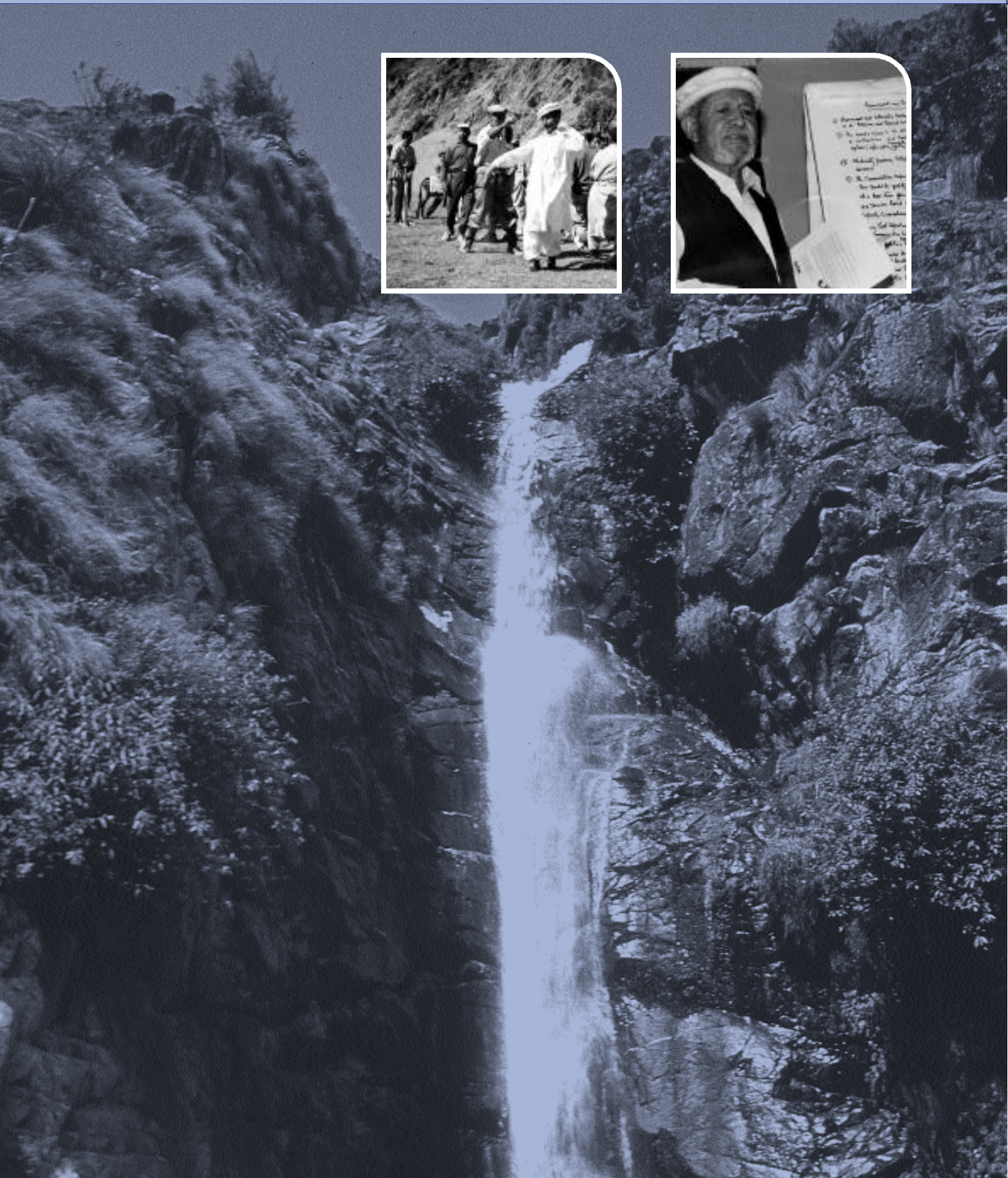
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NORTHERN AREAS Strategy for Sustainable Development





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Acronyms and Abbreviations



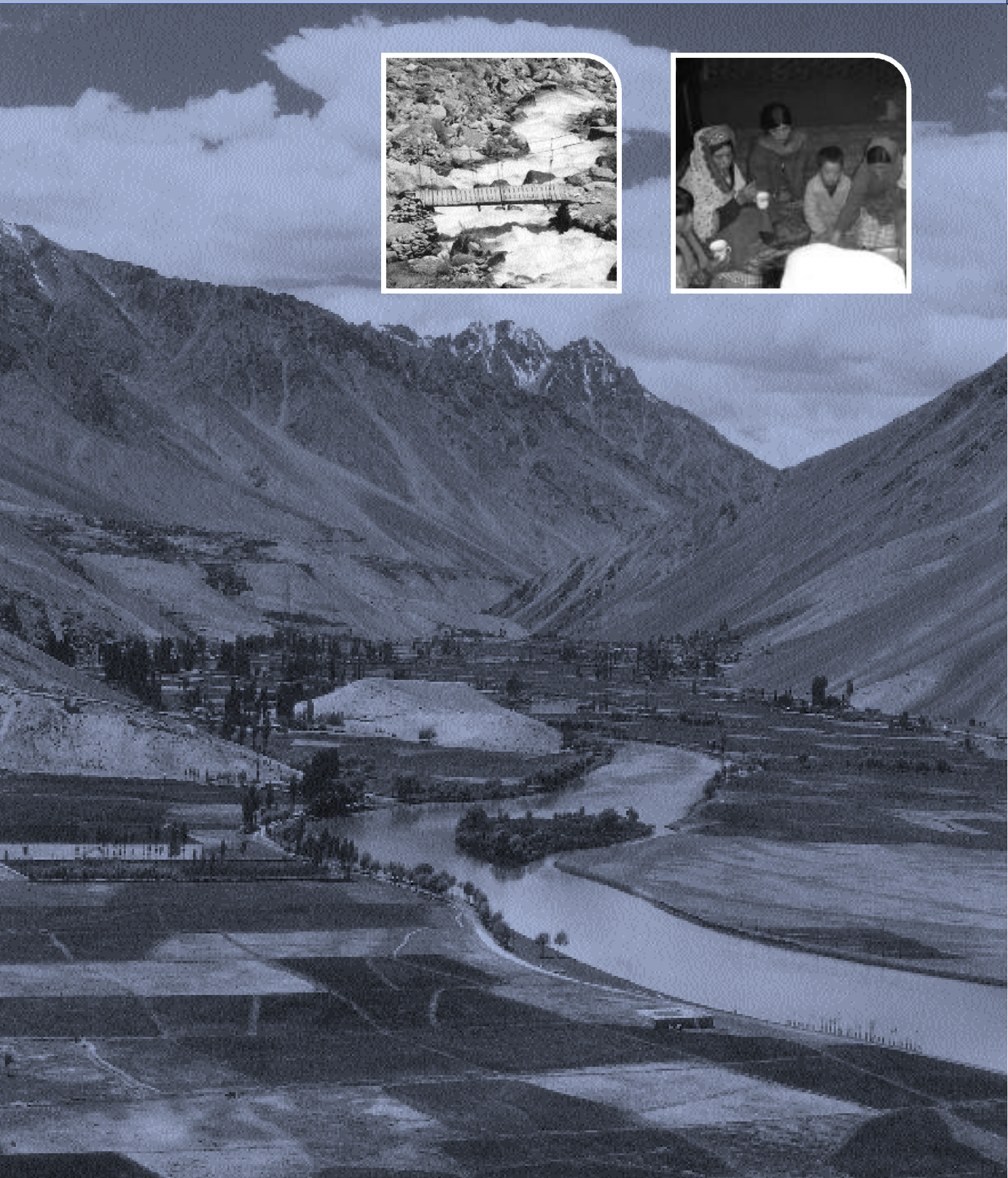
ADP	Annual Development Programme
AKCSP	Aga Khan Cultural Services Pakistan
AKDN	Aga Khan Development Network
AKESP	Aga Khan Education Services Pakistan
AKHSP	Aga Khan Health Services Pakistan
AKRSP	Aga Khan Rural Support Programme
BACIP	Building and Construction Improvement Programme
BCF	Baltistan Culture Foundation
BCS	Balochistan Conservation Strategy
CBO	Community-Based Organisation
CCI	Council of Common Interests
CIS	Commonwealth of Independent States
DoA	Department of Agriculture
DoF	Department of Finance
DoH	Directorate of Health
ECNEC	Executive Committee of the National Economic Council
EIA	Environmental Impact Assessment
FPCCI	Federation of Pakistan Chambers of Commerce and Industry
GCIC	Gilgit Conservation and Information Centre
GoP	Government of Pakistan
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation)
HACF	Hunza Arts and Cultural Forum
HEC	Hunza Environmental Committee

HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HWF	Himalayan Wildlife Foundation
IDRC	International Development Research Centre
IPRSP	Interim Poverty Reduction Strategy Paper
IUCN	International Union for Conservation of Nature and Natural Resources (The World Conservation Union)
KARINA	Karakoram Agriculture Research Institute for the Northern Areas
KHDP	Karakoram Handicraft Development Programme
KKH	Karakoram Highway
KTMS	Karimabad Town Management Society
KW	Kilowatt
LBRDD	Local Bodies and Rural Development Department
LFA	Logical Framework Analysis
LHV	Lady Health Visitor
LPG	Liquefied Petroleum Gas
MACP	Mountain Areas Conservancy Project
MoKANA	Ministry of Kashmir Affairs and Northern Areas, and States and Frontier Regions
MW	Megawatt
NA	Northern Areas
NAA	Northern Areas Administration
NACCI	Northern Areas Chamber of Commerce and Industry
NACS	Northern Areas Conservation Strategy
NADP	Northern Areas Development Project

NAEP	Northern Areas Education Project
NAFD	Northern Areas Forest Department
NALC	Northern Areas Legislative Council
NAPWD	Northern Areas Public Works Department
NARC	National Agricultural Research Centre
NARSD	Northern Areas Roundtable on Sustainable Development (proposed)
NASDF	Northern Areas Sustainable Development Fund
NASSD	Northern Areas Strategy for Sustainable Development
NATDB	Northern Areas Tourism Development Board
NCS	National Conservation Strategy
NEC	National Economic Council
NFC	National Finance Commission
NGO	Non-Governmental Organisation
NHP	Northern Health Programme
NORAD	Norwegian Agency for Development Cooperation
NRM	Natural Resource Management
NRSP	National Rural Support Programme
NTFP	Non-Timber Forest Product
NWFP	North West Frontier Province
P&DD	Planning and Development Department
PA	Protected Area
PC	Planning Commission
PCAT	Pakistan Council for Appropriate Technology
PCG	Policy Consultative Group (proposed)
PCSIR	Pakistan Council for Scientific and Industrial Research
PEPA	Pakistan Environmental Protection Act, 1997
PFI	Pakistan Forestry Institute
PKR	Pakistani Rupee
PRSP	Poverty Reduction Strategy Paper
RBM	Results Based Management
SAP	Social Action Programme
SCO	Special Communications Organisation
SDC	Swiss Agency for Development and Cooperation
SEA	Strategic Environmental Assessment

SL	Sustainable Livelihoods
SME	Small and Medium Enterprise
SoED	State of Environment and Development
SPCS	Sarhad Provincial Conservation Strategy
UN	United Nations
UNCED	United Nations Conference on Environment and Development
VO	Village Organisation
WAPDA	Water and Power Development Authority
WASEP	Water and Sanitation Extension Programme
WSHSP	Water, Sanitation, Hygiene and Health Studies Project
WUO	Water User Organisation
WWF-P	World Wide Fund for Nature, Pakistan
WWMA	Water and Watershed Management Authority (proposed)

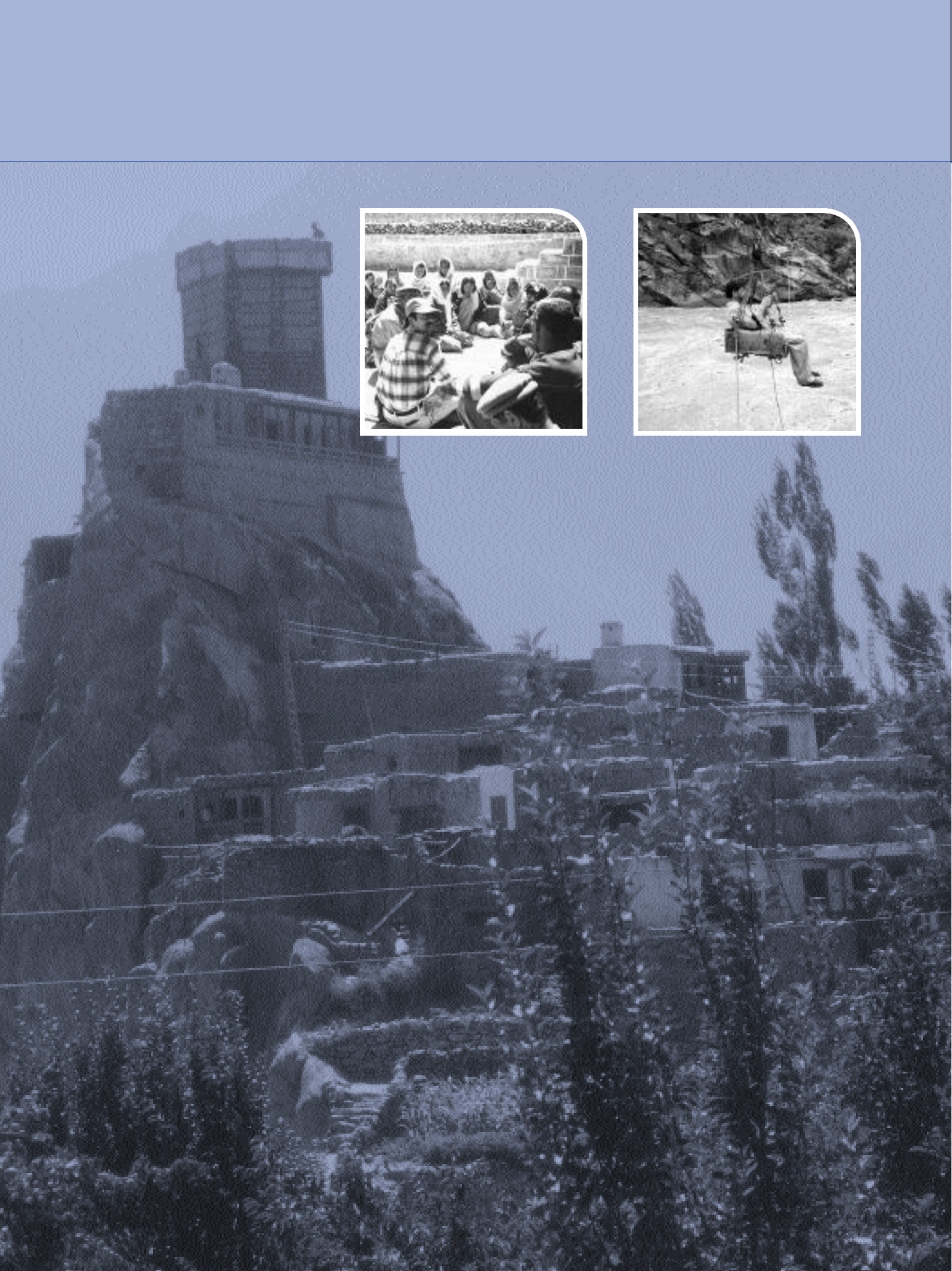




Glossary



<i>Dehi</i>	Rural; of village
<i>Karru</i>	A species of medicinal plant (<i>Picrorhiza kurroa</i>)
<i>Khushhal</i>	Prosperous
<i>Kuhl</i>	Water channel
<i>Kuth</i>	A species of medicinal plant (<i>Saussuria lappa</i>)
<i>Madrassa</i>	Religious school
<i>Mushaira</i>	Poetry recital
<i>Octroi</i>	Traditional municipal taxation system
<i>Rabi</i>	Winter cropping
<i>Shadbaad</i>	Name of a quarterly newsletter for NASSD, meaning evergreen
<i>Tehsil</i>	The administrative unit below the sub-divisional level
<i>Ulema</i>	Religious scholars



Preface



The Northern Areas possess one of the most rugged landscapes on earth. Four of the world's greatest mountain ranges converge here: the Hindu Kush lie to the west; the lesser Himalaya to the south; the Karakoram to the east; and the Pamir to the north. In total, 101 peaks above 7,000 metres are found in the region, including Nanga Parbat and K-2, the world's second highest mountain. More than half of the Northern Areas is located above 4,500 metres.

For centuries, this mountainous landscape made the Northern Areas one of the most remote and inaccessible regions of the sub-continent. At the time of Pakistan's independence, for example, the Northern Areas had only nine pony tracks, 13 suspension bridges and a small, basic airport. With the opening of the Karakoram Highway in 1978 and other initiatives, the picture has altered almost beyond recognition. The region now has hundreds of kilometres of roads, over 360 bridges and two substantial airports - one of which is capable of handling Boeing 737s.

Today, the Northern Areas are experiencing an era of unprecedented pressures and change. As these pressures have intensified, the social and environmental fabric that has sustained the region for generations has come under increasing strain. The unravelling of this fabric is manifested in a myriad of ways. It can, for example, be seen in the degradation of the Northern Areas' forests; the loss of biodiversity; the erosion of cultural traditions; the decline in food security; the emergence of social problems such as drug abuse; and the growing levels of female poverty.

The Northern Areas Strategy for Sustainable Development (NASSD) has been prepared as a direct response to these concerns. It has been developed through an intensive, participatory process spanning over four

years, and incorporates the contributions and recommendations of many different groups and stakeholders. Key steps in the development of the Strategy have included: the organisation of public consultative workshops involving over 2,000 men and women; the arrangement of a series of dedicated meetings with government line departments, non-governmental organisations and community groups; the commissioning of 16 in-depth, technical reports by local and national experts; and the formation of six multi-stakeholder interest groups and roundtables

The Strategy that has emerged from this consultative process endeavours to provide a coherent, long-term development vision for the Northern Areas that integrates both environmental and socio-economic concerns. It seeks to maintain and build upon the dramatic advances already made in such areas as health, education and agriculture; to conserve the region's rich cultural heritage; and to ensure that the natural resource base upon which the long-term future of the Northern Areas depends is used in a sustainable fashion. The NASSD also seeks to foster the evolution of a sensitive development approach that is specifically tailored to meet the unique challenges and constraints posed by the Northern Areas' fragile mountain ecosystems.

Nearly 60 years ago, the renowned naturalist Aldo Leopold extolled society to "think like a mountain". By this he meant that we need to take a long-term view of conservation and development, and to recognise the many complex inter-dependencies that characterise and sustain a healthy ecosystem. The NASSD seeks to do just this; with their dramatic mountain landscapes, few settings could be more appropriate than the Northern Areas for the application of such an approach.



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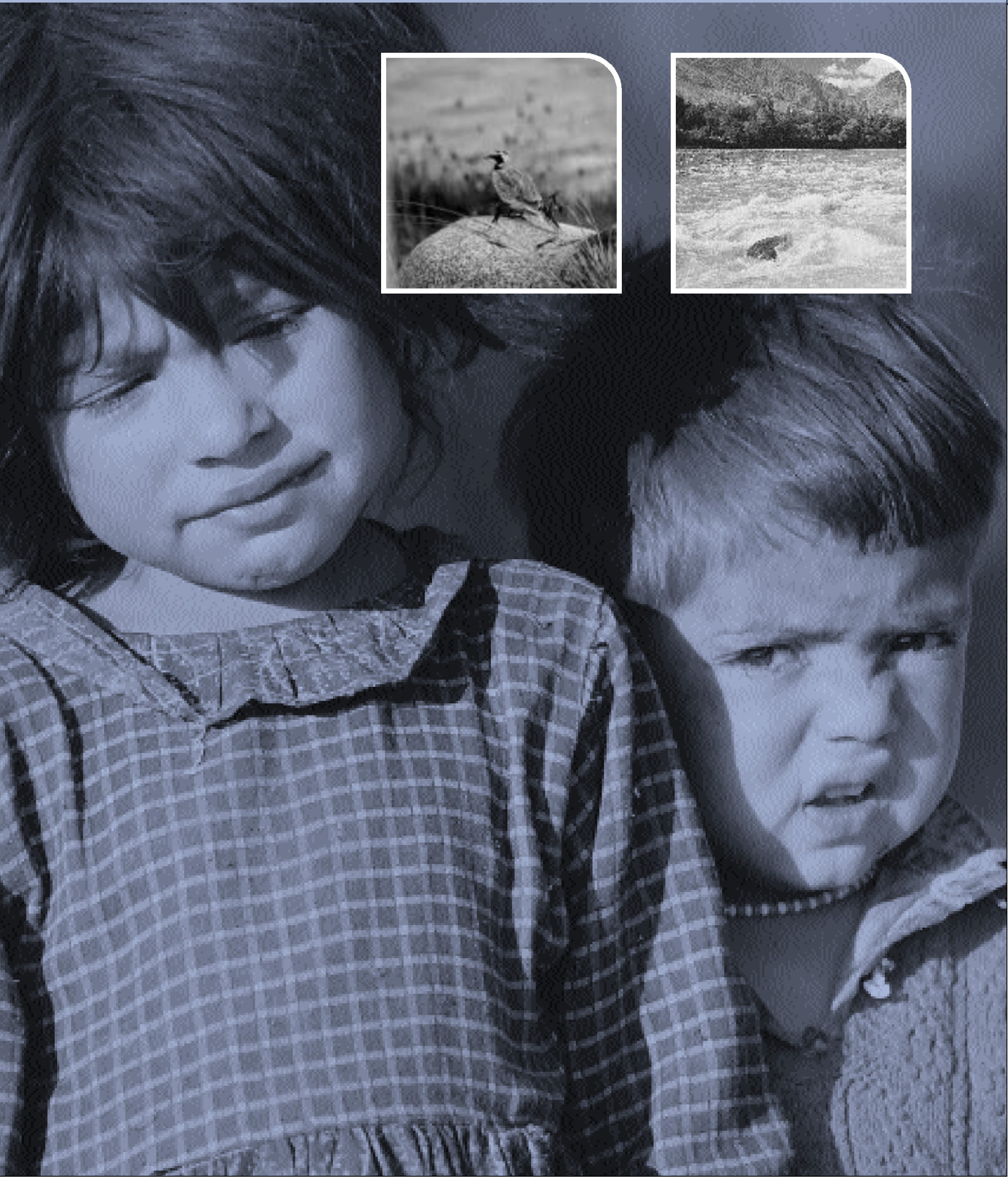


The Northern Areas Strategy for Sustainable Development has been developed through an intensive process of consultation, research and iterative review. The strategy has benefited from the input of a particularly diverse array of stakeholders, including local communities, politicians, federal and provincial government agencies, the armed forces, civil society organisations, the private sector, the media, academia, ulema and donor agencies.

In total, over 200 meetings, workshops and training sessions were organised during the course of the strategy's preparation. Nearly 3,500 people took part in these events and generously provided information, comments and feedback. Although it is not possible to name everyone individually, the contributions of all participants are gratefully acknowledged.

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Executive Summary



The Northern Areas (NA) span a region of some 72,496 square kilometres of north-eastern Pakistan. They are characterised by a fragile, high mountain environment and extreme climatic conditions; however, they support over 870,000 people, and possess great ecological and cultural diversity. The Northern Areas also serve as the principal water catchment for the Indus River, upon which a majority of Pakistan's irrigation and hydroelectricity depends.

In recent years, there have been mounting concerns about the extent and pace of both social and ecological change in the Northern Areas. The Northern Areas Strategy for Sustainable Development (NASSD) seeks to address these concerns by establishing a coherent, long-term development vision as well as a comprehensive framework for action. The Strategy is the culmination of over four years of work, involving extensive public consultations throughout the Northern Areas as well as detailed technical analyses of key environment and development issues.

Governance

Governance reforms are the centrepiece of the Strategy. Although the Northern Areas constitute an integral part of Pakistan, they do not have the same status as the nation's four provinces and are administered directly by the federal government. This special legal status has had a number of important repercussions for the governance of the region. For example, the Northern Areas have not been accorded membership in the National Assembly or the Senate, and are not, therefore, represented in Pakistan's key policy-making forums. The challenge of attaining good governance has been further compounded by the limited mandate of the Northern Areas Legislative Council (NALC), under-developed public institutions, and insufficient administrative capacity.

To address these constraints, the NASSD proposes a far-reaching set of governance reforms, including actions to develop and empower local and regional political institutions, expand the legislative functions of NALC and accord greater administrative authority to the elected regional executive. Several new institutions will be established, including a Public Service Commission. These measures will be complemented by a comprehensive programme of institutional development and capacity building within the public sector, as well as regulatory reform.

Civil Society

Non-Governmental Organisations

The NASSD draws attention to the crucial role of civil society in promoting good governance and sustainable development. Non-governmental organisations (NGOs) have been especially active in the Northern Areas, and have contributed to significant improvements in such areas as agriculture, irrigation, water supplies, income generation, health, education and literacy. The achievements of the Aga Khan Rural Support Programme (AKRSP), which pioneered the formation of Village Organisations (VOs), have been particularly notable. There is, however, still a need to strengthen the NGO sector in a number of areas. Among other measures, steps will be taken to: enhance NGO management and adminis-

trative capacities; bolster financial sustainability; strengthen environmental assessment and management capabilities; and improve coordination. NGO representation within the NA's strategic decision making processes will also be enhanced.

The Private Sector

In contrast to the NGO sector, the NA's private sector remains small and under-developed. At present, the sector is dominated by businesses involved in transport, general trade, agriculture, infrastructure and tourism. Further development of the sector is constrained by many factors, including the region's remoteness, economic instability, the poor condition of the NA's infrastructure, and an inefficient banking sector. Nevertheless, there is considerable potential for growth, particularly in those areas in which the Northern Areas already have a "niche" or a comparative advantage; these include ecotourism, trade with China and the Commonwealth of Independent States (CIS), organic fruit production, cottage industries and vegetable seed production. Amongst other actions, the NASSD will initiate measures to: develop clear economic policies; strengthen the Northern Areas Chamber of Commerce and Industry (NACCI); and increase support for small and medium enterprises (SMEs).

Socio-Economic Development and Poverty Alleviation

Population

The 1998 census suggested that the NA's population was approximately 870,000, and growing at a rate of 2.47 per cent a year. It is now estimated that nearly 50 per cent of the population is under the age of 15, and that approximately 39 per cent of the female population is of reproductive age. This implies that - even if the NA's birth rate were immediately reduced to replacement level - the demographic momentum of the population would still result in more than a 75 per cent increase over the next two decades. Although the Northern Areas' human population can be considered the region's ultimate resource, an ever-increasing population cannot be sustained by the NA's fragile and limited natural resource base. The NA's rapid rate of population growth is also placing an increasing strain on the region's already over-stretched social services.

The NASSD recognises that the Northern Areas' progress towards sustainable development would be significantly enhanced if the rate of population growth could be slowed. To this end, measures will be undertaken to: strengthen fertility reduction programmes; intensify efforts to enhance the status of women; raise awareness among a broad array of stakeholders; and increase investment in the NA's health and education sectors.

Poverty

Although there is very little information about the incidence of poverty in the Northern Areas, several recent studies have estimated that between 23 and 32 per cent of the population lives below the poverty line. The causes of poverty in the Northern Areas are varied, and include governance factors (e.g., the lack of strong pro-poor policies), economic factors (e.g., the recent slow-down in Pakistan's economic growth and tourism industry) and government austerity measures. The property rights of the poor to crucial resources (such as land, water and trees) have also become increasingly restricted over time.

The poor are particularly vulnerable to environmental degradation because of its impacts on their livelihoods and their health, and because of their increased exposure to natural disasters such as landslides. The principal thrust of the NASSD, therefore, will be to help the poor reduce - and cope with - vulnerability. To this end, measures will be initiated to: promote the development of pro-poor macro policies; formulate new legislation to address access and property rights; and expand social protection, for example, by establishing "emergency response cells" to help reduce the impacts of environmental disasters. Efforts to facilitate and promote broad-based economic growth in the Northern Areas will be intensified, as will efforts to meet the needs of the poorest of the poor through the design and implementation of special rural development and income generation programmes.

Gender

Women constitute approximately 48 per cent of the Northern Areas' population. Their contributions to the region's well-being, however, remain under-valued and largely unseen, and their needs and aspirations often remain unrecognised. Despite the execution of many NGO and government development initiatives over the last two decades, there have been only modest improvements in the economic and social conditions of women. By and large, women are still secluded and have fewer rights, less mobility and fewer economic opportunities than men. The results of the Farm Household Income and Expenditure Surveys carried out by AKRSP between 1991 and 1998 have shown that levels of female poverty, vulnerability and insecurity are on the increase.

The NASSD recognises that the most effective approach to the sustainable development of the Northern Areas will be one that actively involves all sectors of society. The Strategy will seek, therefore, to ensure that women and other disadvantaged groups are empowered through social, economic and political reform. Amongst other initiatives, measures will be taken to: promote the integration of gender concerns into the policies, programmes and projects of priority development sectors; encourage the con-

tinued establishment and development of Women's Organisations at the community level; and facilitate the design and implementation of special programmes to increase women's access to education, health and other social services. Steps will also be taken to raise awareness about gender issues, particularly among men, the media and "agents of change" (e.g., government officers, policy makers and religious leaders).

Education

Despite significant improvements over the last two decades, the NA's education sector is still characterised by high drop-out rates and large disparities between male and female student numbers. There are important weaknesses in the teaching system, including the absence of monitoring and evaluation mechanisms, the lack of refresher courses, and the general unavailability of supplementary teaching materials. Although the existing curriculum contains a significant amount of basic information on the environment (e.g., information on forests and agriculture), this material remains diffuse and difficult to incorporate into lesson plans. The situation is exacerbated by the lack of experienced resource persons and master trainers.

Under the auspices of the NASSD, measures will be undertaken to: improve access to educational facilities for both girls and boys; increase investment in teacher training; promote the development of learning materials; and extend the curriculum re-development process to the secondary levels. The Strategy will also promote the integration of environmental themes into the middle school and high school curricula, as well as the curricula of the private school system and religious institutions. The infusion of environmental themes into the activities of co-curricular organisations (such as the Boy Scouts and Girl Guides) will also be encouraged.

Environmental Health

The population of the Northern Areas suffers from a wide range of environmental health problems, including diseases such as cholera, typhoid, shigellosis, amoebiasis and asthma. Tens of thousands of people are affected by these diseases every year. Poor sanitation and insufficient access to clean water supplies are among the principal factors underlying the NA's environmental health problems; virtually all the water supply systems in the Northern Areas are contaminated with human and animal waste. Other factors include: the absence of adequate household ventilation; poor solid waste management practices; uncontrolled urbanisation; and the lack of land-use planning. One of the key constraints to improving the situation is the relatively low priority accorded to environmental health issues. The situation is exacerbated by limited NGO/government coordination in the health sector, the

insufficient capacity of the NA's health facilities, the region's remote and difficult terrain, and urban biases.

To address these concerns, an intensive public awareness campaign will be undertaken, aimed at promoting the adoption of simple measures to improve environmental health (e.g., the use of boiled water for drinking and cooking). Higher priority will be accorded to the provision of primary health care, particularly in the NA's rural areas. Public sector investment in water supplies, sewerage, solid waste management, housing and land-use planning will be increased. As an immediate measure, the practice of dumping sewage into the kuhl system will be stopped.

The Urban Environment

The results of the 1998 census suggest that the population of the NA's urban areas is growing at approximately 0.8 per cent per year. Although this rate of urban growth is not as high as it is in other parts of Pakistan, it is significantly greater than the absorptive capacity of the region's towns and urban centres. Unplanned urbanisation has strained the Northern Areas' existing services and utilities, and exposed critical gaps in the region's urban infrastructure. Current water storage capacity in Gilgit town, for example, is estimated to be 15 times less than existing demand requires. Similarly, it is estimated that household electricity demand within the NA's five district headquarters presently outstrips production by some 19 MW during the winter. The government institutions charged with the responsibility for managing urban settlements in the Northern Areas are constrained by many factors, including: insufficient financial and human resources; lack of coordination; insufficient technical expertise; inadequate monitoring and evaluation systems; and ambiguous roles and responsibilities both within and amongst departments. Following the abolition of the octroi system in July 1999, financial constraints have become particularly acute and many municipalities are incapable of meeting even basic responsibilities.

Under the auspices of the NASSD, measures will be taken to improve and maintain existing urban infrastructure, and to provide new infrastructure where this does not exist. Particular attention will be accorded to: improving both the quantity and quality of water supplies; assessing the possibility of introducing cost recovery systems for urban services (e.g., user fees); enhancing urban drainage and sanitation; improving urban road systems (e.g., by relocating truck terminals and industries into designated areas away from urban settlements); and developing a comprehensive solid waste management strategy. In the first instance, the current disposal site at Gilgit will be abandoned and a new site located.

Energy

The Northern Areas have the lowest per capita rate of energy consumption in Pakistan. Although there are currently 81 hydropower stations and several thermal stations in operation in the region, only 42 per cent of the NA's households currently have access to electricity; as a result, the principal source of domestic energy is firewood, which is used by over 99 per cent of the region's households. There is a large and rapidly growing gap between existing supplies of electricity and demand, which is now estimated to be in excess of 32.5 MW. Efforts to improve the NA's electricity supplies, however, are constrained by the region's difficult terrain, the overloaded and ageing electricity infrastructure, large transmission and distribution losses, low levels of investment in the energy sector, and insufficient capacity within the Northern Areas Public Works Department (NAPWD). Although hundreds of potential hydropower sites have been identified, only a small proportion has been developed to date.

The NASSD will seek to ensure that the Northern Areas are provided with adequate, affordable and reliable supplies of energy - particularly electricity. To this end, measures will be undertaken to: develop a comprehensive energy policy; establish an independent power board; enhance the capacity of NAPWD; and improve the operation and maintenance of existing energy facilities. These measures will be complemented by the design and implementation of an energy conservation programme, and the development of new hydropower stations at carefully selected sites. The feasibility of connecting the Northern Areas to the national electricity grid will also be examined.

Cultural Heritage and Sustainable Tourism

The Northern Areas' rich mix of natural and cultural heritage makes the region a particularly important tourist destination. Tourism development, however, has been hampered by the lack of policy guidelines, insufficient investment, inadequate tourism infrastructure, insufficient human resource development and weak marketing. Tourism has also been associated with social and environmental impacts (e.g., the waste left behind by mountaineering expeditions).

Despite these problems, the NASSD draws attention to the sizeable contribution that responsible tourism could make to the sustainable development of the Northern Areas. Measures will be undertaken to: develop a clear regional tourism policy; promote a more diverse range of tourist activities (such as wildlife viewing and low altitude trekking); increase investment in communication and transportation infrastructure; and develop a comprehensive marketing strategy, focusing in particular on the domestic market. Active steps will also be taken to conserve the NA's unique cultural heritage; amongst other measures, the Silk

Route Festival will become an annual event, and key architectural and archaeological sites will be provided with legal protection under the Pakistan Antiquities Act.

Natural Resource Management

Improved natural resource management will be fundamental to achieving sustainable development in the Northern Areas. There is a particular need to increase agricultural production, improve rangeland management and livestock production, and strengthen the conservation and management of forests, biodiversity and water. The Northern Areas also have extensive but largely untapped mineral reserves that offer considerable economic and development potential.

Agriculture

Although some 80 per cent of the NA's population is engaged in subsistence agriculture, production is no longer sufficient to meet the region's requirements; as a result, the Northern Areas have become increasingly reliant on imported foodstuffs. In 2002, for example, some 70,000 metric tonnes of food were imported by the Food Department from other parts of the country, and sold at subsidised rates. During the public consultations organised during the NASSD formulation process, food security was identified as the most important issue in all but one of the NA's five districts.

To address these concerns, high priority will be accorded to enhancing the region's food security, by: improving farming practices (e.g., seed bed preparation and disease control); increasing the use of improved crop varieties; enhancing the production of quality seeds; expanding the area under irrigation; and reducing wastage. These measures will be complemented by a range of other interventions, including the expansion of poultry and fisheries production, the increased provision of micro-credit, and strengthening of the agricultural research and extension system.

Rangelands and Livestock

Livestock are an integral component of the NA's agricultural systems. They produce milk and meat for consumption and sale; account for more than 40 per cent of household farm incomes; provide dung for use as fertiliser; and supply traction for agricultural operations. The full potential of the livestock sector, however, remains unrealised, because of the shortage of quality fodder, a high incidence of disease and other constraints.

In the short to medium-term, the core NASSD objective in the livestock and range sector will be to expand the production of cultivated fodders, and to enhance the management of existing livestock-range systems. These measures will be complemented by improved veterinarian

services and the development of community-level, livestock management organisations (based on the successful VO model pioneered by AKRSP).

Forests

The NA's natural forests are amongst the most important forests in Pakistan. They play a vital role in protecting the watershed of the Indus River; serve as a source of forage and pasture for the NA's livestock population; and provide critical supplies of timber and firewood to local communities. Despite their importance, the NA's forests continue to be managed in an unsustainable fashion. Deforestation and degradation remain serious concerns, as a result of excessive exploitation, encroachment and fire.

Under the auspices of the NASSD, high priority will be accorded to the conservation of all remaining natural forest areas. Amongst other steps, measures will be initiated to: develop an enabling framework that supports sustainable forest management; establish joint forest management regimes involving both government and local communities; promote farm forestry; and develop individual management plans for all private and protected forests. Forest monitoring and assessment will also be significantly enhanced.

Biodiversity

The biodiversity of the Northern Areas is particularly rich, and includes a considerable number of globally threatened species, such as the snow leopard. The region also supports a wealth of agrobiodiversity, including traditional cultivars of grain crops, many different varieties of fruit and a wide range of traditional livestock breeds. Although an extensive network of protected areas (PAs) has been established, the NA's wild biodiversity continues to be threatened by many factors, including indiscriminate hunting, over-exploitation of medicinal plants and habitat destruction; the region's agrobiodiversity is also being lost, as a result of agricultural intensification.

To address these concerns, the in-situ conservation of the NA's wild biodiversity will be strengthened by: enhancing the management of existing PAs; introducing collaborative management regimes involving partnerships between government and local communities; and initiating village-based, sustainable use programmes outside protected areas which build on the experiences of the Mountain Areas Conservancy Project (MACP), the World Wide Fund for Nature-Pakistan (WWF-P) and others. The potential for establishing trans-frontier "peace parks" along the NA's international borders will also be explored. Ex-situ conservation of agrobiodiversity will be promoted within appropriate institutions, such as the Karakoram Agriculture Research Institute for the Northern Areas (KARINA).

Water

Glaciers and snow are the principal sources of water in the Northern Areas' high altitude environment. The water from these sources feeds an extensive system of man-made channels, known locally as kuhls. Irrigation is the single largest "consumer" of water in the Northern Areas; in 1990, for example, nearly 97 per cent of the total cultivated area was under irrigation, highlighting the critical role of irrigation in the region's food security. Although official statistics suggest that over 40 per cent of the NA's rural population has access to piped water supplies, many systems are out of order, and actual coverage may be as low as 20 per cent. Water resource management and development face a considerable number of constraints and challenges, including large variations in stream flow, the loss of very large quantities of water in transit, frequent landslides and heavy sediment loads.

Under the auspices of the NASSD, these issues will be addressed by: creating an autonomous Water and Watershed Management Authority (WWMA); preparing a comprehensive Water Master Plan; and promoting the participation of water users in the design, development, operation, maintenance and financing of water supply systems. Measures will also be taken to increase the NA's water storage capacity through the construction of small-scale tanks. Water losses will be minimised by ensuring that repairs to water channels are undertaken promptly.

Mining and Minerals

The Northern Areas have long been recognised as a region with considerable mineral wealth. To date, some 18 types of commercially valuable minerals and ten types of gemstones have been identified. Despite this potential, however, the mining sector remains under-developed, and has a poor profit earning ratio. Constraints facing the sector include insufficient human, technical and financial resources, high risks and large investment costs. Mining activities are also largely unregulated, and have led to a wide range of environmental impacts including landslides, water contamination and habitat destruction.

Nevertheless, the NASSD recognises that a carefully planned and managed mining sector could make a significant contribution to the economic development of the Northern Areas. Measures will be introduced to: develop an effective regulatory and legal framework; prevent and mitigate environmental impacts; improve the health and safety of those involved in mining activities; strengthen human, technical and financial resources; and encourage activities that will bring greater added value. The possibility of establishing a "Gem Mining and Cutting Institute" in the Northern Areas will be examined.

Implementation Mechanisms

Lead responsibility for coordinating and facilitating the implementation of the NASSD will be vested in a restructured and strengthened Planning and Development Department (P&DD). To oversee and guide the implementation process, a multi-stakeholder Northern Areas Roundtable on Sustainable Development (NARSD) will be established, under the chairmanship of the NA's Deputy Chief Executive. At the sectoral level, it is envisioned that NARSD will give consideration to the establishment of several Policy Consultative Groups (PCGs), on a needs basis. These groups would be composed of both government and civil society representatives, and would have a mandate to review and provide advice on the NA's sectoral programmes.

These implementation measures will be supported by reforms in the annual planning and resource allocation process, comprehensive sectoral capacity building programmes, the establishment of a Statistical Unit within P&DD, and the development of cross-sectoral integration mechanisms. The use of Environmental Impact Assessments (EIAs) to appraise the effects of individual development projects will be significantly strengthened; this will be complemented by measures to introduce Strategic Environmental Assessments (SEA) of priority sectors, and by the development of a negative list for investments. To raise awareness and support for the NASSD, a targeted communications strategy will also be designed and implemented.

Financial Resources

Financial resources for the implementation of the Strategy will be sought from a variety of sources. Federal funding will continue to be a crucial source of support, although this will need to be realigned with NASSD priorities and objectives. Particular emphasis will also be accorded to the generation of local resources, for example, by enhancing the collection of user fees, introducing a local taxation scheme, and exploring the potential for natural resource levies and other mechanisms. In order to ensure that critical development priorities receive a steady stream of financial support even in the face of government budget oscillations, a Northern Areas Sustainable Development Fund (NASDF) will be created, under the direction of an independent board. International agencies, NGOs and the private sector will also have an important role to play in resource mobilisation.

Monitoring and Assessment

A multi-level, participatory framework will be established to track the status of NASSD implementation and to determine

whether the Strategy's recommendations are being put into action. P&DD will be given the mandate to collate and synthesise monitoring information and to prepare six-monthly progress reports for formal submission to the Northern Areas Roundtable on Sustainable Development.

This monitoring framework will be complemented by a system to assess the Northern Areas' overall progress towards sustainability, based on the use of indicators to ascertain trends in both human and ecosystem well-being.

The information generated by this assessment system will be used by P&DD to prepare a comprehensive State of the Environment and Development (SoED) Report at five-year intervals.

All monitoring and assessment reports will be widely circulated within both government and civil society. An independent, external review of NASSD implementation will be carried out at regular intervals of three to five years.



Introduction



C H A P T E R

01

RATIONALE AND CONTEXT

The Northern Areas (NA) of Pakistan comprise a small, land-locked and economically weak region, yet they are of great importance to the nation. They serve as a vital catchment for the Indus River, upon which a majority of Pakistan's irrigated agriculture and hydroelectricity depends; contain the nation's most important natural forests; support a wealth of biodiversity; and possess a rich cultural and archaeological heritage.

However, following the opening of the Karakoram Highway (KKH) in the 1980s, there have been mounting concerns about the pace and severity of both ecological and social change in the Northern Areas. Among other issues, concerns have been expressed about the rapidly growing requirements of an expanding population, unsustainable natural resource use, the increasing dependency on external sources of food, the mounting pressures on the region's health and education services, and the loss of cultural traditions. At the same time, the isolated nature of many communities - and the NA's fragile, high altitude, mountain environment - imposes special constraints and challenges on the region's socio-economic development. The standard models of development that have emerged elsewhere in Pakistan cannot simply be transplanted wholesale to the Northern Areas.

The Northern Areas Strategy for Sustainable Development (NASSD) seeks to respond to these concerns, by presenting an integrated and coherent development vision for the region. It has been prepared by the Northern Areas Administration (NAA) over a four year period (1999-2003), with the financial assistance of the Swiss Agency for Development and Cooperation (SDC) and the Norwegian Agency for Development Cooperation (NORAD). Technical assistance has been provided by IUCN-The World Conservation Union.

The NASSD draws upon two distinct but complementary "lineages". The first of these relates to the World Conservation Strategy of 1980, which provided the impetus for the development of the Pakistan National

Conservation Strategy (NCS). The second lineage relates to the United Nations Conference on Environment and Development (UNCED). Held in Rio de Janeiro in 1992, UNCED led to the adoption of Agenda 21 and to a call for the preparation of national sustainable development strategies.

Initial work on the Pakistan NCS was begun in 1987, and the final document was formally adopted by government in 1992. The NCS represented a bold and pioneering attempt to establish a national framework for improving human well-being, through the conservation and sustainable use of natural resources. It subsequently led to the development of provincial-level conservation strategies in several different parts of Pakistan, notably the North West Frontier Province (NWFP) and Balochistan.

When the strategic planning process in the Northern Areas was first begun, the initial intention was to formulate a "Northern Areas Conservation Strategy"; in this regard, the original aim was to develop a strategy which would be similar in scope and approach to the other provincial conservation strategies that were already in place elsewhere in Pakistan. As the development of the Northern Areas' strategy progressed, however, there was a growing recognition of the need to move beyond the traditional focus on natural resource management and to adopt a broader approach which addressed such issues as governance, poverty alleviation and socio-economic development in a more central manner. There was also a recognition of the need to move away from a detailed focus on specific projects and programmes and to adopt a much greater emphasis on the

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Celebrating after winning a polo match.

Box 1**The Millennium Development Goals**

At the Millennium Summit in September 2000, the 189 states of the United Nations reaffirmed their commitment to working toward a world of peace and security for all - a world in which sustaining development and eliminating poverty would have the highest priority. The Summit adopted a set of international development goals, which have now been widely accepted as a framework for measuring development progress.

The Millennium Development Goals include the following:

- n Reduce the proportion of people living in extreme poverty and hunger by half between 1990 and 2015;
- n Achieve universal primary education in all countries by 2015;
- n Eliminate gender disparities in primary and secondary education by 2005, and in all levels of education no later than 2015;
- n Reduce infant and child mortality rates by two-thirds between 1990 and 2015;
- n Reduce maternal mortality rates by three-quarters between 1990 and 2015;
- n Halt and begin to reverse the spread of HIV/AIDS by 2015;
- n Halt and begin to reverse the incidence of malaria and other major diseases by 2015;
- n Integrate the principles of sustainable development into country policies and reverse the loss of environmental resources;
- n Reduce by half the proportion of people without sustainable access to safe drinking water by 2015;
- n Achieve a significant improvement in the lives of at least 100 million slum dwellers by 2020;
- n Implement national strategies for sustainable development by 2005, so as to reverse the loss of environmental resources by 2015;
- n Develop a global partnership for development, based on an open and non-discriminatory trading and financial system.

processes and mechanisms that will be required to achieve sustainable development.

At this stage, therefore, a decision was taken to broaden the Northern Areas' strategy into a sustainable development strategy for the region. In making this change, an explicit decision was also made to link the strategy not only with the NCS, but also, with the strategic processes initiated by UNCED, Agenda 21 and the recent World Summit on Sustainable Development. The NASSD also acknowledges and complements other national development initiatives, including Pakistan's Poverty Reduction Strategy Paper (PRSP), as well as international development targets, such as the Millennium Development Goals (Box 1).

NASSD FORMULATION PROCESS

The process of developing the NASSD was based on consultations with many different stakeholders, including the public and private sectors, non-governmental organisations (NGOs), opinion leaders and citizens. Public consultations were organised throughout the region and were extremely well attended. On the basis of the consultations, 16 priority intervention areas were identified. National experts and planners were then called in to develop background papers in these selected fields (Box 2). A Steering Committee under the direction of the Chief Secretary, NA, was responsible for overseeing the entire process.

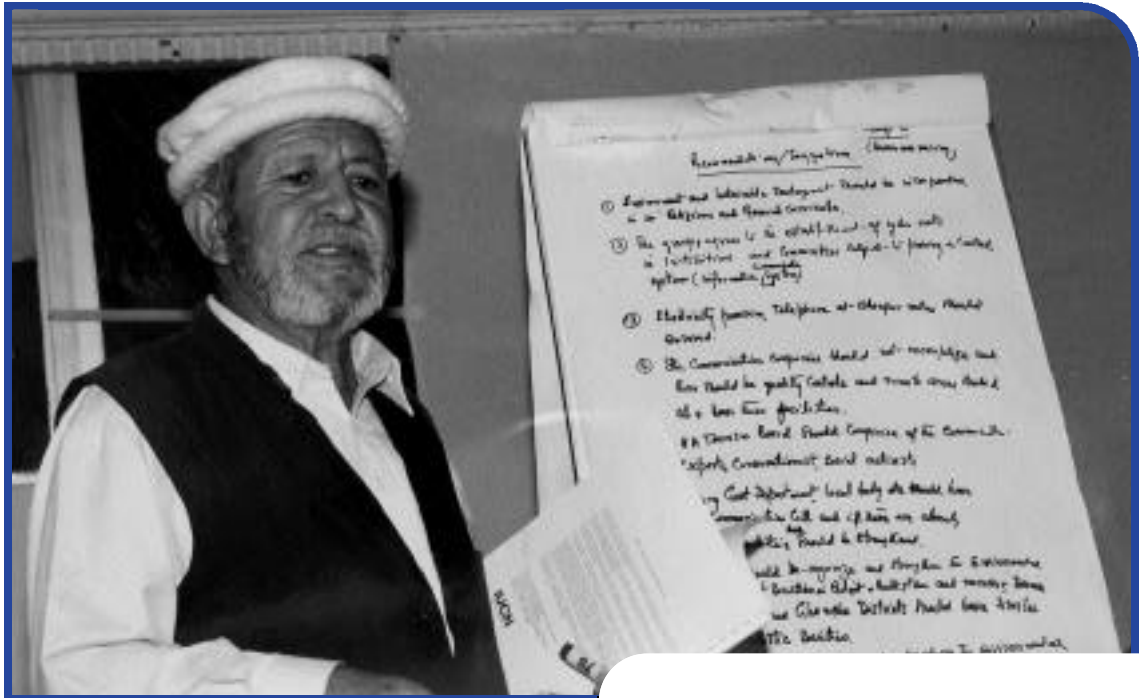
The results of the consultative process and the findings of the background papers have been used to generate two different but inter-linked documents. The first is the State

of the Environment and Development (SoED) Report, which summarises in a single volume all the key information gathered during the preparation of the NASSD. It is the first report of its kind to be produced for the Northern Areas, and seeks to establish a benchmark of the prevailing situation. The report provides an analysis of the most important environment and development issues in the Northern Areas, describes the responses taken by both government and civil society to date, and presents a variety of possible options for the future. In essence, the SoED

Box 2**NASSD Background Papers**

- n Agriculture and Food Security
- n Biodiversity
- n Communication for Sustainable Development
- n Cultural Heritage and Sustainable Tourism
- n Energy
- n Environmental Education
- n Forestry
- n Gender, Environment and Development
- n Governance
- n Health and Environment
- n Non-Governmental Organisations
- n Population, Poverty and Environment
- n Private sector
- n Rangelands and Livestock
- n Urban Environment
- n Water

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People driven process.

Report establishes the context and foundations for the Northern Areas Strategy for Sustainable Development.

The second product to emerge from the planning process is the NASSD itself. The Strategy seeks to provide a concise framework for action in four key thematic areas: governance; civil society; socio-economic development/poverty alleviation; and natural resource management. Considerable attention is also accorded to identifying the mechanisms, structures and resources that that will be required to ensure effective implementation of the Strategy. The final chapter describes a set of monitoring and assessment arrangements, designed to track the NASSD's outputs and implementation status, and to determine its overall impact on the Northern Areas' progress towards sustainability.

NASSD GOAL, OBJECTIVES AND PRINCIPLES

Long-Term Goal

The social, economic and ecological well-being of the people of the Northern Areas is secured.

Ten-Year Objectives

- n An integrated policy framework which promotes both conservation and development is in place and operational at all levels in the Northern Areas;
- n Reforms to promote the achievement of "good governance" in the Northern Areas are in place and under progressive implementation;

- n The Northern Areas have a vibrant civil society which is actively contributing to the sustainable development of the region;
- n Significant progress is being made towards the achievement of the Millennium Development Goals in the Northern Areas;
- n The natural resources of the Northern Areas are being conserved, rehabilitated and sustainably used;
- n Participatory approaches to development planning and natural resource management (NRM) are institutionalised;
- n The Northern Areas have the institutional capacity and human resources necessary to achieve sustainable development;
- n Up-to-date, accurate and user-friendly information on the status of both ecosystem and human well-being is available and actively used to guide and assess the development process.

Guiding Principles

- n To respect and adapt the principles of sustainable development to the particular ecological and socio-economic circumstances of the Northern Areas;
- n To respond to district and tehsil-level needs and aspirations, as reflected in the ongoing programmes on social organisation and the work of the region's Village Organisations (VOs);
- n To acknowledge and strengthen the complementary relationship between government and civil society organisations;

- n To recognise, respect and draw upon both traditional and contemporary sources of knowledge;
- n To recognise and respect the Northern Areas' cultural traditions and religious values;
- n To promote the active participation of all sections of society - including women, minorities and other dis-

advantaged groups - in the sustainable development of the region;

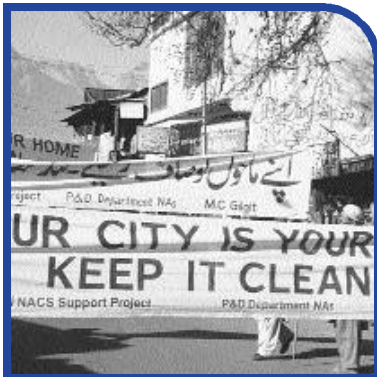
To respect the National Conservation Strategy as well as Pakistan's international commitments under the various multilateral agreements to which it is a signatory.



Brief Description of the Northern Areas

02

CHAPTER



LOCATION AND ADMINISTRATION

The Northern Areas span a region of some 72,496 square kilometres, bordering China, Afghanistan and India. As a result of their politically sensitive location, the Northern Areas have been accorded special territorial status; they are administered directly by the federal government, through the Ministry of Kashmir Affairs and Northern Areas, and States and Frontier Regions (MoKANA).

Syed Sajjad Imran



Nanga Parbat, ninth highest peak in the world.

The region has been divided into five districts: Gilgit, Baltistan, Diamir, Ghizar and Ghanche. These, in turn, have been further sub-divided into a total of 13 sub-divisions and 19 *tehsils*. The region's administrative headquarters are located in Gilgit town (see Map1).

TOPOGRAPHY, CLIMATE AND ECOLOGICAL ZONES

The Northern Areas are dominated by one of the most mountainous landscapes on earth, with an arm of the Hindu Kush to the west, the lesser Himalaya to the south, the Karakoram to the east, and the Pamir to the north. More than half of the Northern Areas is located above 4,500 metres.

Climatic conditions vary widely in the Northern Areas, ranging from the monsoon-influenced moist temperate zone in the western Himalaya, to the arid and semi-arid cold desert in the northern Karakoram and Hindu Kush. Below 3,000 metres, precipitation is minimal, rarely exceeding 200 millimetres annually. However, there is a strong gradient with altitude, and at 6,000 metres, the equivalent of 2,000 millimetres per year falls as snow. Temperatures in the valley bottoms can vary from extremes of 40 C in summer to less than -100 C in winter

The wide variety of climatic conditions in the Northern Areas, coupled with the extreme variations in altitude and aspect, has led to an equally wide array of vegetation and ecological zones. Five distinct zones can be identified: dry alpine areas and permanent snowfields; alpine meadows

and alpine scrub; sub-alpine scrub; dry temperate coniferous forest; and dry temperate evergreen oak scrub. This diverse range of vegetation and ecological zones also supports a rich faunal diversity, including an estimated 54 species of mammals and 230 species of birds.

HISTORY

The Northern Areas have had a long and turbulent history. Many different peoples and cultures have left their impact on the region, including the "Rock Art People", who can be traced back to the 5th millennium B.C., the White Huns from Central Asia, the Turks, the Tibetans and the Dogra rulers of Kashmir.

A trade route connecting India with Central Asia and China was established as early as the 4th century B.C. Buddhism was introduced to the region in the 1st century A.D., and flourished until the 8th century A.D., when the Tarkhan rulers converted to Islam. Over the next several decades, Islam was increasingly adopted by the population at large, and remains the dominant religion to this day.

The Kashmir Crisis

At the end of the 19th century, the British created the Gilgit Agency and appointed a political agent, under a lease agreement with Maharaja Hari Singh of Kashmir. When Britain's Indian empire was formally partitioned in 1947, conflict broke out between Pakistan and India over the future of the Kashmir region. On 1 January 1949, Pakistan and India agreed to a ceasefire brokered by the United

Nations (UN). Under the terms of this agreement, each country was allocated a portion of Kashmir to administer, pending a plebiscite on the future of the region.

Today, the lack of a resolution to the Kashmir crisis continues to cast a shadow over the Northern Areas, and is a critical impediment to sustainable development. Tensions over the future of the region remain high. The Line of Control remains heavily militarised, and border skirmishes occur on a regular basis, particularly along the Siachen Glacier.

The Karakoram Highway

In a remarkable feat of civil engineering, the Karakoram Highway was constructed over an 11 year period between 1968-1978, by the Pakistan Army's Frontier Works Organisation. This all-weather road stretches some 840 kilometres, and provides the Northern Areas with a vital link to the rest of Pakistan. Beginning in Hasan Abdal, the road winds its way through the Northern Areas, eventually crossing the Khunjerab Pass at an altitude of 4,733 metres, to reach the Chinese frontier. The completion of the Karakoram Highway opened up the Northern Areas to an unprecedented influx of developers, immigrants and tourists. Perhaps more than any other factor, the Karakoram Highway is responsible for the Northern Areas' accelerating rate of social, economic, cultural and environmental change.

POPULATION

The 1998 population census estimated that there were just over 870,000 people in the Northern Areas. Despite the

growth of the NA's urban areas, the great majority of the population (approximately 86 per cent) continues to be rural.

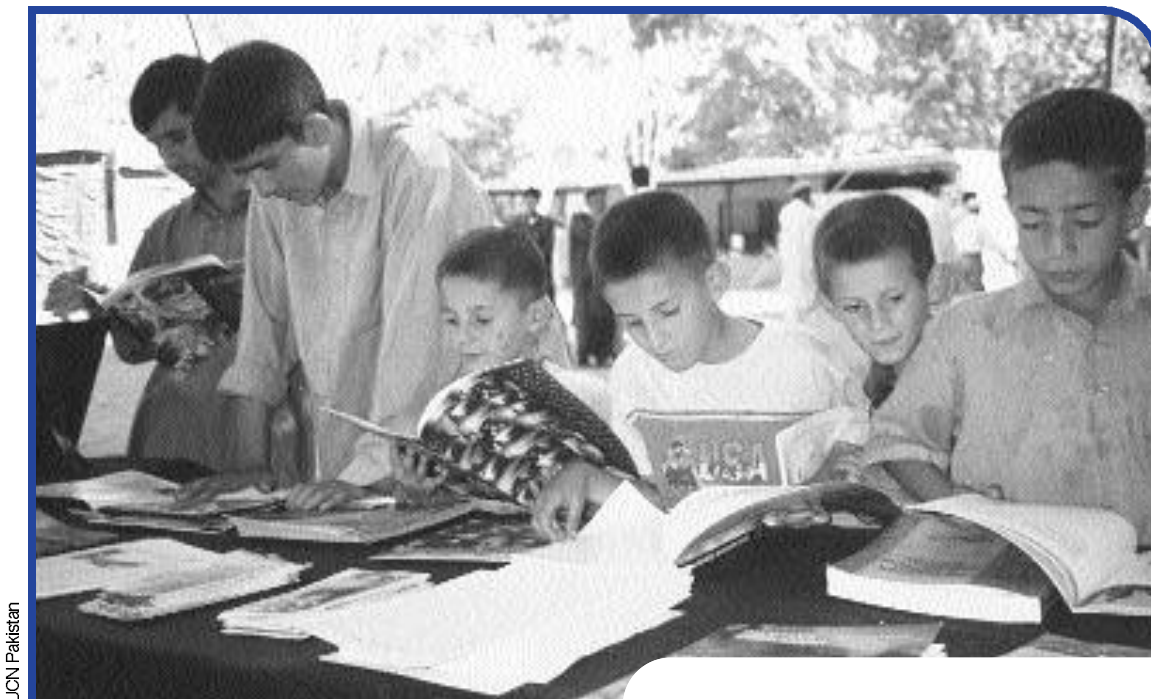
Although the total population of the Northern Areas is relatively small, it is linguistically and ethnically diverse, reflecting the region's legacy of cultural change, migration and conquest over thousands of years. Each of the districts of the Northern Areas has a different cultural mosaic, and often, the original language of each area is different as well. Religious affiliations also vary, from the traditional Sunni Muslims in Chilas near Nanga Parbat, to the Ismailis in Hunza, and the Shias and Noorbakshis in Baltistan and Nagar Valley.

PRINCIPAL LAND-USES

Land-use in the Northern Areas is dominated by subsistence cultivation, fruit growing, livestock raising, forestry and protected areas. There is a small but growing service sector, particularly in transportation, tourism and trading, as well as a significant military presence. Although the NA's mineral and fisheries resources appear to be significant, this potential has remained largely untapped to date.

Only two per cent of the Northern Areas is believed to be cultivable. Of this area, just over one per cent is already in use for the production of grain crops, fruit and vegetables. Approximately nine per cent of the Northern Areas is occupied by natural forests and scrub, and 22 per cent by rangelands (primarily alpine pasture).

Human settlements are concentrated along the valley



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Raising awareness across the generations.

floors, where glacial melt provides sufficient water for cultivation. Agricultural systems vary significantly with elevation. Between 1,200 and 2,000 metres, both summer and winter crops are grown. Between 2,000 and 3,000 metres, only summer crops (either maize or wheat) are grown. Beyond 3,000 metres, cultivation ends and high forests and alpine pastures begin.

The principal food crops are wheat, maize, barley, potatoes, vegetables and fruits. Livestock are an integral component of the agricultural system; in 1996, the total livestock population of the Northern Areas was estimated to exceed two million animals.

KEY ENVIRONMENT AND DEVELOPMENT ISSUES

During the consultative process organised as part of the NASSD formulation process, local communities, NGOs and government agencies identified a wide variety of envi-

ronment and development concerns. Declining food security was identified as one of the most important issues in all but one district. Other priority concerns included: insufficient access to quality education; deforestation; poor governance; a weak private sector; insufficient access to water; inadequate communication infrastructure; and poverty.

Additional issues of concern highlighted during the consultative process included: inadequate energy supplies; insufficient access to health services; insufficient investment in ecotourism; the loss of biodiversity; social problems (such as sectarian conflict and drug use); uncontrolled urbanisation; and inappropriate legal and policy frameworks. Gender inequities - and the disproportionately heavy workload of women - were also identified as a concern.

Despite the seriousness of these issues, it is also important to emphasise that there have been many positive trends as well. Over the last two decades, the Northern Areas have made significant social and economic

Box 3

The Northern Areas at a Glance

Size and Administration	
Total Geographical Area	72,496 km ²
Administrative Units	Five districts; 13 sub-divisions; and 19 tehsils
Population (1998)	
Total Population	870,347 (Male: 453,221; Female: 417,126)
Annual Population Growth Rate (1981-1998)	2.47 %
Total Households	110,785
Agriculture (2001)	
Area under Cereals	52,837 ha
Area under Fruits	12,056 ha
Area under Vegetables	10,638 ha
Area under Fodders	47,558 ha
Livestock Population (1996)	2,015,082 (not including poultry)
Education (1998-99)	
Number of Schools	1,764 (Government: 1,370; Private: 394)
Number of Teachers	3,733 (Trained: 2,264; Untrained: 1,469)
Number of Students	168,057 (Boys: 105,113; Girls: 62,944)
Literacy Rate	33 % (Male: 40%; Female: 25%)
Health	
Number of Government Doctors (1999)	165
Infant Mortality Rate	70/1,000 live births
Child Immunisation Rate (< 5 years old)	55%
Contraceptive Prevalence	20%
Water and Sanitation (1998-99)	
Proportion of Rural Population with Access to Clean Water	46% (government estimate); 20% (NGO estimate)
Proportion of Rural Population with Toilet in House/Compound	60%
Energy	
Proportion of Households with Access to Electricity	42%
Proportion of Population Using Firewood for Heating and Cooking	99.6%



Awareness raising, one of the key processes.

progress, and many development indicators have shown an impressive improvement. The Northern Areas also possess a unique set of opportunities for sustainable development, including a well-established network of Village Organisations, a traditional culture of participatory development and a history of NGO/government collaboration. There is considerable potential for the carefully-planned development of ecotourism, the expansion of trade with China and the Commonwealth of Independent States (CIS),

the further development of commercial agriculture and cottage industries, and the increased production of small-scale hydropower. As described in the following chapters, the NASSD seeks to build upon these strengths and opportunities, in order to place the Northern Areas firmly upon the path towards sustainable development.



Governance

03



It has increasingly been recognised that the quality of a region's governance can have a greater influence on development than individual policies, programmes or projects. As a result, good governance has now become one of the central issues in development and features prominently on the agenda of public policy debates in Pakistan as well as in many other countries around the world.

Governance can be defined as the status of the relationship between a state and its citizens. The term encompasses not only the types of organisational structures and systems that have been put into place, but also, the manner in which these function in society. The key attributes of good governance are: legitimacy; participation; responsiveness; transparency; accountability; competence; and decentralisation.

Governance reforms lie at the heart of the NASSD. This chapter briefly summarises the NA's existing institutional regime, and highlights a number of critical constraints and obstacles to the achievement of good governance in the region. In order to put these issues into a national context, the current reforms being undertaken by the Government of Pakistan (GoP) are described. In the concluding section, a set of strategic priorities for enhancing the future governance of the Northern Areas is identified.

THE NORTHERN AREAS' INSTITUTIONAL REGIME

Constitutional and Legal Status

The Constitution of Pakistan provides for a federal system and defines the status and rights of the nation's provinces. Each province has its own legislature, as well as considerable autonomy to appoint civil servants and to create management structures and systems. In the fiscal arena, the provinces have their own taxation and revenue generation powers as well as a share of federal revenues. They also have membership in important national forums such

as the Senate, the Council of Common Interests (CCI) and the National Economic Council (NEC).

The Northern Areas, however, have the status of a federally administered area, and do not therefore enjoy the same rights as a province. Amongst other differences, they have relatively little administrative or fiscal autonomy; their powers of taxation are limited; and they have no representation in national political forums. In addition, the Chief Executive is accountable to Parliament, rather than the regional legislature.

Governance Structures

The Chief Executive for the Northern Areas is the Federal Minister for Kashmir Affairs and Northern Areas, and States and Frontier Regions.

The Chief Executive is assisted by a Deputy Chief Executive, who is appointed from the members of the Northern Areas Legislative Council (NALC). The Deputy Chief Executive enjoys the status of a Minister of State, and is assisted by a number of Advisors. These are appointed by the Chief Executive in consultation with the Deputy Chief Executive, from the members of the Council; the Advisors are entitled to the status of a Provincial Minister (see Figure 1).

The principal civil servant in the Northern Areas is the Chief Secretary, while the various line departments are headed by Secretaries. "Government" is defined by the Northern Areas Rules of Business, 1994, as meaning the Chief Executive, the Deputy Chief Executive and the Chief Secretary.

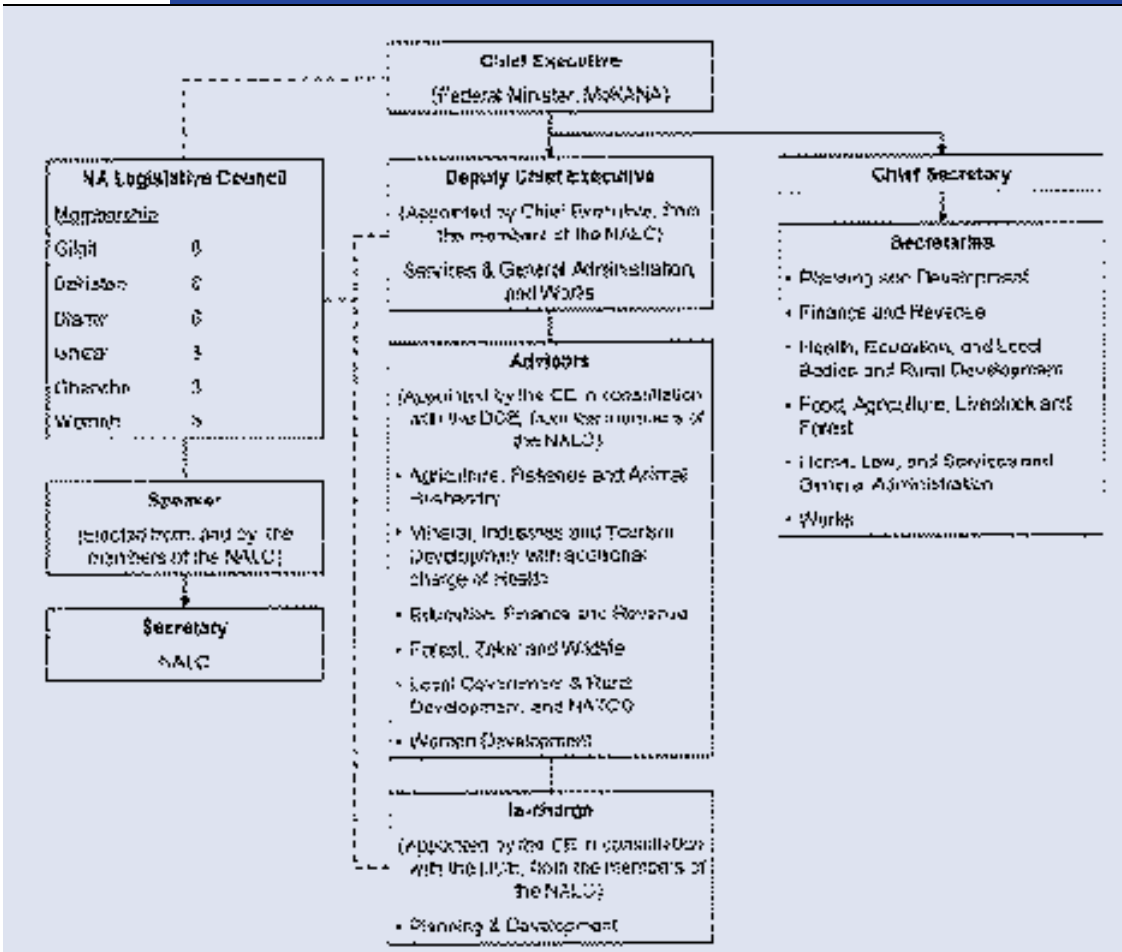


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Radio, bridging the communication gap.

Figure 1

Organogram of the Northern Areas' Governance Structures



The Northern Areas Legislative Council is an elected body, composed of 29 members (24 directly elected representatives, and five reserved seats for women); the Chief Executive is not a member of the Council. Schedule II to the Northern Areas Council Legal Framework Order, 1994, lists the matters with respect to which the Council may make laws. The Chief Executive's assent to a bill is required after passage in Council; without this assent, the bill cannot become law. The Government of Pakistan may also, by order, make laws with respect to matters outside the purview of the Council. The annual budget allocated to the Northern Areas is presented before the Council in the form of a statement.

Each district has a court and a district and sessions judge. There are ten civil judges who also exercise the powers of judicial magistrates. The Chief Court, comprising of one chairman and two members, acts as the Court of Appeal for the decisions of the district and sessions judges.

IDENTIFYING THE ISSUES

Resource Allocation and Decision Making

Lack of representation at the federation level decision making for a significantly constrains the region's ability to articulate its interests at the national level. Furthermore, because of minimal accountability of the management structure to the citizens of this area, the needs and priorities of the area are not adequately reflected in debates at the federal level. This hampers the area's ability to maximize its access to resources. Further complicating this debilitation is the fact of exemption from taxes that weakens its case for participation in decisions affecting resource allocation.

Public Sector Capacities

Although many parts of the civil service are motivated and committed, technical capacity is constrained by insufficient skills, funding, systems and technology, resulting in

weak service delivery. The situation is exacerbated by the lack of training institutions and capacity building opportunities within the Northern Areas. For example, there is no law college in the Northern Areas, and no system for the in-house training of judges. Similarly, the Local Government Department has no training facility. Although a Police Training Centre has been established for constables, no other training is imparted locally; for all other purposes, the training institutes of other police forces in other provinces must be used.

Support staff working within the government system faces a similar set of constraints. In the absence of a local training facility, the Federal Secretariat Training Institute sends a team to the Northern Areas every year to conduct short courses. However, these courses follow a standardised format and thus do not address the particular needs of the NA's civil servants.

Governance Structures and Institutions

Good governance in the Northern Areas is further constrained by the absence of several key structures and institutions. There is, for example, no independent civil service tribunal in the Northern Areas, which can adjudicate on cases pertaining to the grievances of civil servants (especially in relation to the abuse of power). Such a tribunal would help to ensure that civil servants carry out their functions appropriately and effectively; its absence is an important constraint on the emergence of a professional civil service in the region.



IUCN/Pakistan

Education for awareness.

The NALC is a directly elected forum whose members are appointed through a genuine political process. The framework that provides for its existence, however, does not allow it to fulfil its true leadership potential in the development of the region. The NALC does not play a part in the determination of development priorities of the region, or adhere to the principles of approval of budgetary allocations. The Deputy Chief Executive and the Advisors are accountable to the citizens through the ballot, but exercise minimal authority in real terms. This affects the functioning of the bureaucracy also which remains primarily answerable to federal authorities. Thus the opportunity to highlight and adequately address local issues becomes difficult. The NALC therefore cannot act as the optimal accountability mechanism for the executive branch of the government.

Transparency and Participation

There are no special mechanisms in place to help facilitate the acquisition of data or information by the region's citizens. Similarly, no systems have been established to encourage government agencies to share information proactively, either among themselves or with the general public. The NA's low literacy rates are a further impediment to the flow of information. As a result of these factors, transparency is limited. Compounding this lack of information is the inadequacy of mechanisms for citizen voice to be heard and considered in local decision making, despite the long and successful experience of village organizations. These need to be built upon to evolve a culture of political accountability.

Weak Tax Base

As a result of the Northern Areas' special administrative status, most of Pakistan's taxation laws are not applicable to the region. This has left the NA Administration with a weak tax base and low revenue earning potential. The lack of a strong funding base is an important impediment to the process of decentralisation and acts as a significant constraint to the establishment of a strong system of local government. A related concern is that the NA's citizens are not meaningfully involved in either the generation or allocation of government resources, thus further undermining the principle of participatory governance.

Regulatory Framework

The key roles of government can be identified as: the provision of direction through policy; the engendering of competition; the ensuring of choice for the citizen; and regulation. Within the Northern Areas, sustainable natural resource management will be central to the eradication of poverty as well as the promotion of equity; the regulatory role of the state in the management of the NA's natural

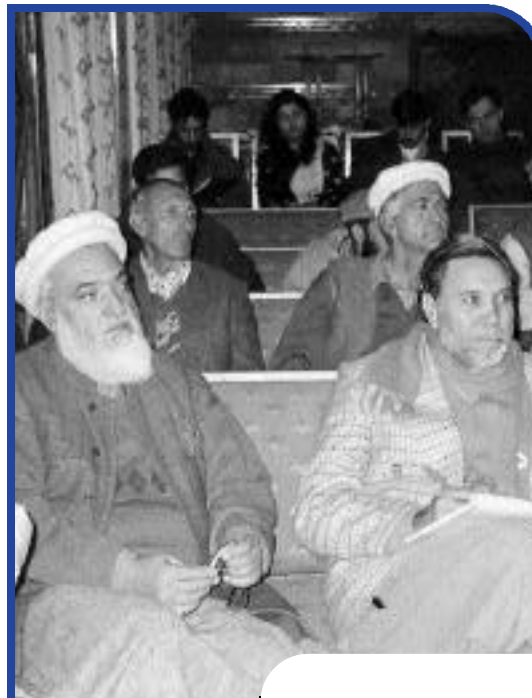
resources is thus a particularly important one. The regulatory framework concerning natural resources is weak and outdated, focused on traditional top-down approaches. Both compliance and enforcement within the Northern Areas' NRM sectors have tended to be weak. This reflects not only the inappropriate nature of the existing legal framework, but also, the insufficient capacity of the responsible line departments and the low priority accorded to natural resource management issues by the courts and the police.

PREVIOUS AND ONGOING GOVERNANCE REFORMS

Governance Reforms within Pakistan

In response to the growing understanding of the critical role of governance in sustainable development, increasing priority has been accorded to governance reforms in Pakistan. During the most recent phase of reform, a new system of local government has been created. The new system significantly increases the mandate accorded to local government and also places considerable emphasis on ensuring political representation of all stakeholders and interest groups. A wide range of measures has been put into place, including the following:

- n Local councils have been established at the union, tehsil and district levels. The councils have been given the mandate to allocate resources according to public needs, as articulated through the political process;
- n Thirty-three per cent of local council seats have been reserved for women. Several seats have also been reserved for other marginalised sections of society;
- n Many important functions and responsibilities have been devolved to local government, ranging from service delivery to regulation;
- n The responsibility for environmental regulation has also been devolved. In the case of Punjab, for example, the district-level offices of the Environmental Protection Agency have now become part of the district government system;
- n New institutions, such as District Ombudsmen, are envisaged in order to provide avenues for administrative justice and to enhance the accountability of government agencies;
- n The relationship between the federal government and the provinces is being reviewed. It is envisaged that some federal mandates will be devolved; it is also likely that the provinces and local governments will receive a greater share of the federal government's financial resources.¹



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NALC members, ready to take more responsibilities.

It should be emphasised, however, that these reforms have only been implemented within Pakistan's four provinces (Balochistan, Sindh, NWFP and Punjab) and - to a lesser extent - the Federally Administered Tribal Areas. They have not yet been implemented within the Northern Areas, because of the region's special administrative status.

Governance Reforms within the Northern Areas

In the year 2000, the Local Bodies and Rural Development Department (LBRDD) facilitated the creation of 558 Village Councils within the Northern Areas. These bodies - known as Dehi Councils - were constituted through a nomination process involving the Village Assemblies. The principal objective of the Dehi Councils is to promote community involvement in the implementation of the Khushhal Pakistan Programme. Amongst other activities, they play an important role in project identification and planning at the local level, the management of government funds, and project implementation.

STRATEGIC PRIORITIES

The transformation to good governance in the Northern Areas will require not only changes in the region's constitutional and legal status, but also, capacity building, institutional development, political education and the decen-

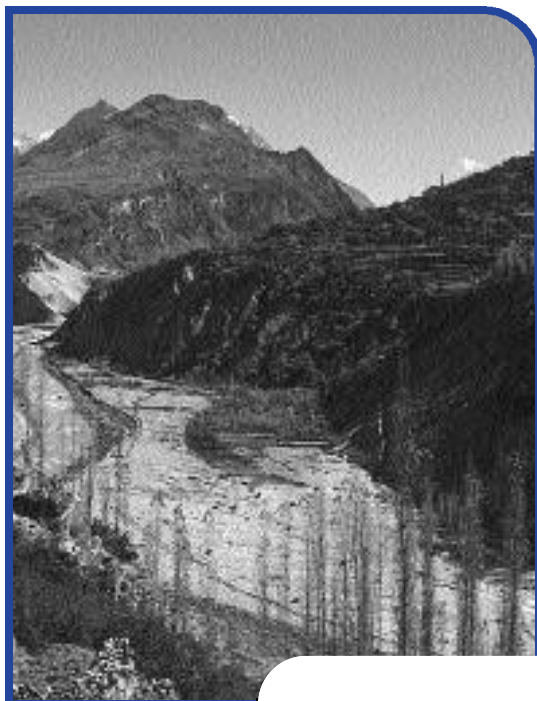
¹ Although this is a welcome initiative that is generally expected to lead to positive outcomes in most parts of Pakistan, its potential impact on the Northern Areas is less clear. For example, because the Northern Areas remain a federally administered area, a reduction in federal resources could possibly lead to reduced allocations for the Northern Areas.

tralisation of service delivery to a vibrant local government system. It must be recognised, however, that the NA's constitutional issues are complex and can only be resolved with the support and concurrence of the federal government; painstaking work will be required to arrive at workable solutions.

To be effective, governance reforms in the Northern Areas will need to be both wide-ranging and sustained. Under the auspices of the NASSD, measures will be undertaken to:

Principal Actions

- n *Review the Northern Areas' constitutional and legal status.* The federal government will be formally requested to carry out a review of the constitutional and legal issues related to the NA's governance framework. The review should focus on ways of strengthening the accountability of the executive to the local electorate and ensuring greater political participation of the NA's citizens in all aspects of development and legislative decision-making;
- n *Implement institutional and structural reforms.* The federal government will be requested to give formal consideration to a number of institutional and structural reforms, aimed at strengthening the NA's system of governance. In particular, the federal government will be requested to:
 - Facilitate the creation of a more representative and empowered political forum for the Northern Areas, similar in nature to the provincial assemblies which



Gilgit Colour Lab

Resource rich Northern Areas, just need good governance.

exist in Pakistan's four provinces. The creation of such a forum could perhaps take place in phases, during which the NALC would be progressively transformed into a fully functional legislature with authority for budgetary appropriations;

- Institute measures to ensure that the Northern Areas are represented within the National Assembly and the Senate. Once again, a phased approach could be adopted. In the early stages, for example, representation could be patterned on the model used by the Federally Administered Tribal Areas. Ultimately, however, representation should be based on population size and other principles, as applicable;
- Accord the Northern Areas with membership in the National Finance Commission (NFC), the National Economic Council (NEC), the Executive Committee of the National Economic Council (ECNEC) and the Council of Common Interests (CCI). It is envisioned that these measures would be considered at an advanced stage in the reform process;
- n *Extend the decentralisation process to the Northern Areas.* Decentralisation offers significant potential to create a more vibrant local government system and to enhance the responsiveness, accountability, transparency and effectiveness of service delivery. In recognition of this potential, the federal government will be formally petitioned to extend the process of decentralisation which is currently being carried out in other parts of Pakistan to the Northern Areas as well. During the initial stages of decentralisation and reform, it is suggested that responsibility for public law and order remain with the Northern Areas Administration; this will help to minimise the risk of disruption and ensure that local governments are provided with sufficient time to build their own capacities. The status of these functions can subsequently be reviewed once local governments become firmly established;
- n *Create and support new institutions.* A number of new institutions will be created and supported in order to provide a well-developed governance framework for the Northern Areas. These will include:
 - An independent Public Service Commission. The Commission will seek to foster merit-based recruitment, standardisation within the civil service and greater professionalism;
 - A multi-stakeholder Northern Areas Roundtable on Sustainable Development (NARSD). This will be designed to oversee and guide NASSD implementation, and to provide a new mechanism through which marginalised communities and under-represented interest groups can voice their concerns. The Roundtable will be given formal, legal status. (Additional details on the composition and role of



Northern Areas Administration, a key element in governance

the Roundtable are presented in Chapter 7);

- n *Enhance the capacity of key government bodies.* Institutional development and capacity building will be central to successful governance reform in the Northern Areas. In the first instance, priority will be accorded to enhancing the capacity of the Northern Areas Legislative Council. This will include: the creation of systems and databases to enable the Council to assess the status of service delivery and natural resource management; the institution of mechanisms to ensure that line departments provide up-to-date reports to the Council; and skills development for Council members. Additional government organisations in need of institutional development will also be identified, on the basis of an agreed set of criteria. Amongst other requirements, there is a need within many agencies to strengthen internal processes and procedures, enhance organisational systems, and clarify and re-define institutional mandates; a number of these changes (e.g., those regarding institutional mandate) may require legal reform;
- n *Enhance the capacity of civil service personnel.* Civil service personnel will be given assistance in acquiring the necessary skills to carry out their roles in accordance with their job descriptions. Skills development programmes will be implemented hand-in-hand with other civil service reforms, such as the introduction of performance-linked incentives. (A more detailed discussion of capacity development issues is presented in Chapter 7);
- n *Enhance transparency and accountability.* Transparency and accountability play a key role in good governance, by helping to ensure that the outcomes of the decision-making process remain responsive to the public's needs. As an integral part of the effort to develop better governance systems within the Northern Areas, therefore, the mechanisms for information sharing will be actively strengthened. Particular emphasis will be accorded to enhancing the transparency of decisions relating to the use of natural resources and the award of large contracts. Within the framework of the NASSD, measures will be introduced to:
 - Ensure that government line departments begin to institutionalise systems that will enable the public to access information about departmental priorities, activities and performance;
 - Ensure that regular reports are published on departmental activities, service delivery, key decisions and the award of contracts;
 - Ensure that a periodic State of the Environment and Development Report is published. This report will present an objective assessment of the status of natural resources and socio-economic development in the Northern Areas, on the basis of an agreed set of indicators (see Chapter 9);
- n *Strengthen participation and political development.* Measures will be undertaken to strengthen citizen participation at all levels, ranging from grassroots initiatives to regional political processes. Particular empha-

sis will be placed on fostering the development of local political organisations affiliated to the national political parties. Public participation will also be fostered through political education, aimed at ensuring that citizens have the necessary skills, tools and knowledge to participate effectively in political processes and public consultations. Social audit mechanisms will be introduced to enable the public to play a role in evaluating the performance of government agencies (particularly those engaged in service delivery and natural resource management);

- n *Introduce local taxation and revenue mobilisation schemes.* The ability to generate local funds is an important factor in successful decentralisation. In this regard, a system of local taxation will be gradually introduced; the possibility of introducing user charges in order to enhance the financial sustainability of service delivery will also be explored. As new taxation and revenue generation measures are brought into force, particular care will be taken to ensure that the poor are not adversely affected;
- n *Reform the civil service.* A variety of civil service reforms will be required to enhance the competency of government line departments. Measures will be undertaken to:
 - Strengthen the professional cadres by adopting more flexible recruitment policies. In particular, new policies will be introduced which will permit



Nejam-ul-Huda Khan

Joining hands for common cause.

the procurement of short- to medium-term expertise from the private sector;

- Assess and strengthen the performance and accountability of the civil service. Particular emphasis will be accorded to: the rationalisation of perfor-

Box 4

Summary of the NASSD's Governance Reforms

As an integral component of NASSD implementation, measures will be undertaken to:

- n Formally request the federal government to carry out a review of the constitutional and legal issues related to the NA's system of governance;
- n Formally request the federal government to give consideration to a number of institutional and structural reforms, including: the creation of a political forum with the status of a provincial assembly; and the implementation of measures to ensure NA representation in the National Assembly and the Senate;
- n Formally petition the federal government to extend the decentralisation process that is currently ongoing in other parts of Pakistan to the Northern Areas as well;
- n Create and support new institutions within the Northern Areas, including a Public Service Commission, and a Northern Areas Roundtable on Sustainable Development;
- n Enhance the capacity of NALC, other government institutions and civil service personnel;
- n Enhance transparency and accountability, by ensuring that the public receives more information about the activities and performance of government line departments;
- n Strengthen citizen participation in political processes, by promoting political education, fostering the development of grassroots political organisations affiliated to the national political parties and instituting social audit mechanisms;
- n Institute local taxation and revenue mobilisation schemes;
- n Implement civil service reform, particularly in relation to recruitment policies, performance evaluation and performance incentives;
- n Develop more effective information management systems;
- n Promote regulatory reform, especially in relation to natural resource management. Particular emphasis will be accorded to the development of joint natural resource management systems which formally involve both government departments and local communities.

mance evaluation procedures; the introduction of new performance incentives; and the implementation of administrative accountability measures (including the Efficiency and Discipline Rules).

Supporting Actions

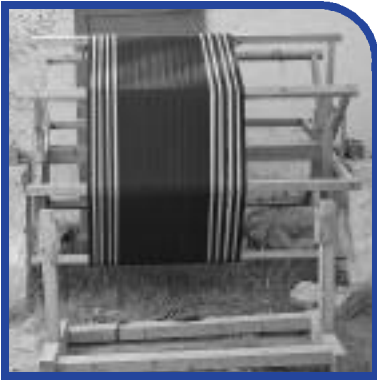
n *Develop effective information management systems.* There is a great need to improve the Northern Areas' information management systems so that they can enable more effective and responsive decision-making. As the first step, a review of existing systems will be undertaken, in order to assess weaknesses and gaps and identify priority requirements. This will be followed by the implementation of a sustained systems development initiative. Reforms will focus on the development of indicators, the creation of databases,

and the institutionalisation of systems for information gathering, organisation and analysis. Indicators will be developed for a range of priority sectors and concerns, including education, health, forestry, biodiversity, poverty and income distribution, communications, drinking water and sanitation. (A more detailed discussion of indicators is presented in Chapter 9);

n *Reform the NRM regulatory framework.* In order to ensure that the control of natural resource use becomes both more efficient and effective, the NRM regulatory framework will be reviewed and reformed. Particular emphasis will be accorded to the development of a framework which will enable the implementation of joint natural resource management systems, which formally involve both government departments and local communities.



Civil Society



CHAPTER

04

This chapter looks at two key components of civil society - non-governmental organisations, and the private sector.

WWF-Pakistan



Self-help, a hallmark of Northern Areas.

The Northern Areas have been at the centre of the NGO movement in Pakistan. The Aga Khan Rural Support Programme (AKRSP), set up in Gilgit in 1982, ushered in an era of unprecedented growth in Pakistan's NGO sector. The success of AKRSP confirmed the valuable role that NGOs can play in the development process of the Northern Areas. The non-governmental sector has made remarkable progress since then, and numerous NGOs are now actively involved in a wide range of environment and development issues. Despite these successes, however, the NGO sector remains constrained by a wide array of factors, and does not yet contribute as effectively as it might to the well-being of the region.

The need for a strong and vibrant private sector to ensure sustainable development has increasingly been recognised. In the Northern Areas, however, ineffective and inefficient public and private sector investments have resulted in an economically depressed private sector and a large number of bankrupt businesses. Although there is significant potential for economic growth in the region, this has not yet been realised, and both poverty and unemployment remain important concerns. The situation has been exacerbated by the absence of basic infrastructure, the high incidence of disease and continuing damage to an already depleted natural resource base. There is now an urgent need for measures that will promote economic growth and provide alternative sources of livelihood, whilst ensuring the conservation and sustainable management of natural resources.

NON-GOVERNMENTAL ORGANISATIONS

Identifying the Issues

Over the last two decades, the Northern Areas' NGO sector has flourished. Some 512 NGOs have now been registered under the Voluntary Social Welfare Agencies (Registration and Control) Ordinance of 1961. According to a recent study by AKRSP, there are over 70 NGOs operating in the Gilgit region alone.

The NGO sector has made an enormous contribution to sustainable development in the Northern Areas. AKRSP, in particular, stands out for its contributions to physical infrastructure, poverty alleviation, agricultural production, food security, women's development and capital generation. AKRSP's pioneering and successful model of social organisation has now been adopted and replicated by many other organisations throughout Pakistan, including the National Rural Support Programme (NRSP) and others. Over the past five years, AKRSP has had an annual budget of approximately US\$ 6,000,000.

Although the NGO sector has grown rapidly over the last two decades, it continues to be constrained by a variety of factors. Insufficient management and institutional capacity is a particular concern. Some of the key areas in which NGO capacities need to be strengthened include: governance; organisational management; financial management and control; human resource development and management; project development and proposal writing; project administration and management; report writing; advocacy; and monitoring and evaluation.

The establishment of a sustainable funding base is a critical challenge for virtually every NGO working in the Northern Areas. Most of the NGOs operating in the region remain heavily dependent on donor funding and lack long-term, reliable sources of finance. In the face of changing donor priorities, even well-funded NGOs can find themselves in a difficult situation, in which the continued flow of donor funds becomes conditional upon the delivery of quick results or significant changes in programme direction.

The funding base of small NGOs and community-based organisations (CBOs) is particularly vulnerable. Rather than attempting to fund and monitor many different small organisations, donors tend to prefer to work with only a select number of large and medium-sized NGOs. Small NGOs often do not have sufficient expertise to develop the types of project proposals that are required to access donor funding, nor the experience necessary to mobilise local resources. The donor community also tends to favour those NGOs that have a strong command of English; this further accentuates the difficulties faced by small, local organisations.

Until recently, there has been no forum or network at the regional level to bring the NAs many different NGOs together onto a common platform. Instead of complementing each other and building on the interventions that have already been made, there has sometimes been a tendency for organisations to work in isolation. As a result, the potential for synergy has often been lost. Another concern related to the absence of a regional forum is that the NGO sector has had relatively little capacity to communicate or to share information and experiences.

Environmental considerations have often not been adequately reflected in NGO programmes and projects, and as a result, some interventions have had a negative impact on the local natural resource base. Insufficient use has been made of project planning tools such as environmental impact assessments (EIAs); similarly, insufficient attention has been accorded to the incorporation of environmental mitigation measures during project implementation. In addition to environmental assessment, there is a particular need to bolster expertise in areas such as integrated natural resource management, agro-forestry, integrated pest management, land-use planning, biodiversity conservation through community participation, and the sustainable use of medicinal plants and wildlife.

In an effort to address these issues and constraints, a diverse array of initiatives has been undertaken. AKRSP, for example, has provided dedicated training to the managers of over 1,400 VOs and Women's Organisations (WOs). The Northern Areas Development Project (NADP) has a mandate to strengthen the capacity of NGOs and

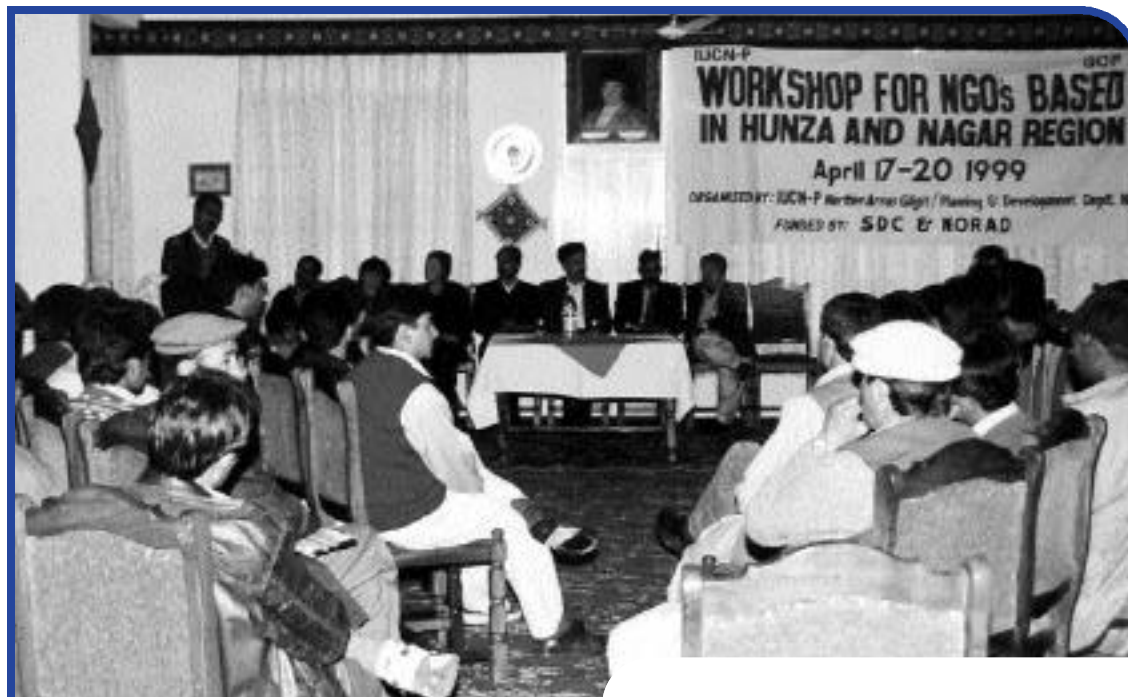
CBOs working in Chilas, Darel and Tangir. The World Wide Fund for Nature-Pakistan (WWF-P) has established the Gilgit Conservation and Information Centre (GCIC), which organises training programmes in conservation and environmental management. In order to enhance coordination and information sharing, IUCN has facilitated the establishment of an NGO Interest Group, composed of representatives from large and small NGOs, government bodies, academia, the private sector and the media.

Strategic Priorities

Within the framework of the NASSD, measures will be undertaken to:

Principal Actions

- n Explore the possibility of merging existing government grants for NGOs (which currently come from many different sources) into a single Regional NGO Fund for the Northern Areas, in order to simplify and streamline government support to the sector;
- n Create a Northern Areas NGO Forum, in order to foster coordination and information sharing within the NGO sector. In the first instance, the possibility of transforming the existing NGO Interest Group into such a forum will be investigated;
- n Strengthen the capacity of the NGO sector, particularly in such areas as organisational management, financial control, human resources development, programme development and implementation, and monitoring and



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Engaging and consulting civil society, a prerequisite of sustainable development.

evaluation. A concerted capacity building effort will be promoted, involving a comprehensive needs assessment, the development of outreach programmes and the organisation of dedicated training sessions;

- n Enhance the financial sustainability of the NGO sector, by: promoting the establishment of stronger working relationships with existing bi-lateral and multilateral donors; developing a broader donor base; exploring new funding sources (such as trust funds and the private sector); arranging an annual, high profile, fundraising event (perhaps in conjunction with the Silk Route Festival); and exploring the possibility of creating endowment funds and a regional soft loan facility;
- n Promote the incorporation of environmental concerns into NGO programmes and projects. The large development NGOs will be encouraged to internalise environmental concerns within their policies and operations. For their part, the large environmental NGOs will be encouraged to play a greater role in strengthening the environmental capacity of development NGOs and CBOs, for example, through the provision of technical support and the implementation of specially-designed training programmes.

Supporting Actions

- n Foster greater trust between the NGO sector and government, through the organisation of joint orientation sessions, seminars, exchange visits and field trips.



IUCN Pakistan

Local agenda, local guidance.

THE PRIVATE SECTOR

Identifying the Issues

A detailed assessment of the NA's private sector has never been undertaken. However, a small-scale survey con-



Serendip

Sieving for gold, equal partner in raising the family income.



Sust dry port, a great economic potential in the coming years.

ducted in 2001 for IUCN has provided an initial profile of the sector. The survey revealed that the transport sector has grown to be the largest business in the region, followed by trade, agriculture, infrastructure and tourism; taken together, these five sectors account for over 80 per cent of the Northern Areas' private sector assets. In total, it is estimated that the private sector currently provides some 23,000 jobs - a very small fraction of the actual work force; service provision is the leading employer, providing 75 per cent of the total number of jobs. The data indicate that businesses related to forestry have the highest profit levels.

The establishment of an Export Processing Zone is in process near the Sust Dry Port for which 49 *kanals* of land has been acquired and construction is at its final stages at a cost of Rs. 120 million with technical assistance from the Chinese Government. This will enable the dry port to handle about 30,000 tons of goods. A link road is also being constructed to the dry port at an estimated cost of Rs. 13 million. On the other hand, a special agreement with the Chinese Government is being negotiated for control of smuggling and harmonisation of custom procedures.

Further development of the NA's private sector is constrained by a number of factors. In the first instance, the current policy and regulatory framework is not conducive to creating the conditions necessary for private sector growth; for example, the absence of both short and long-term economic policies for the region has led to a climate of economic uncertainty which discourages investment.

The lack of essential infrastructure is another important impediment; the poor status of the NA's electricity supply, roads, water, sewerage and telecommunications are particular concerns.

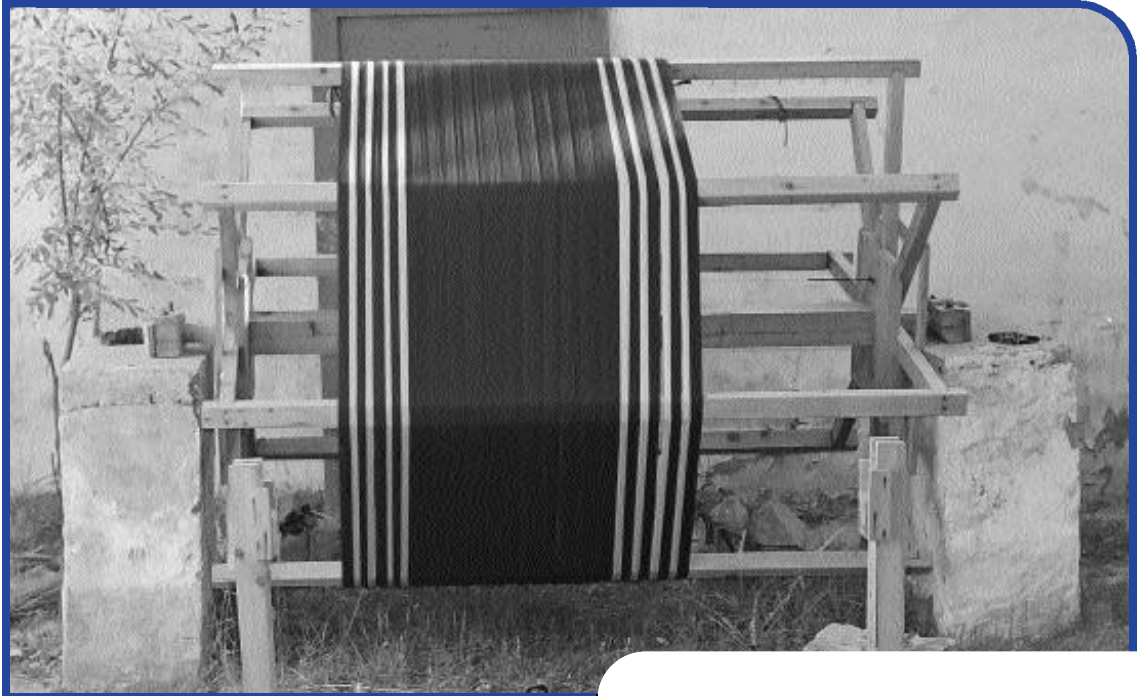
Enterprise development is constrained by the high risks and low rates of return on investment. Investment costs are usually very high because of the region's remoteness and inaccessibility. An inefficient banking sector, general macro-economic and political instability, fragmented markets and harsh climatic conditions that cause business activity to drop off sharply during the winter adversely affect returns on investment.

Insufficient human resource development and inadequate levels of marketable and transferable skills have contributed to the under-development of the enterprise sector. In the absence of a strong manufacturing sector, a significant proportion of the male population tends to migrate to other parts of Pakistan in search of work; this has a negative impact on the availability of skilled human resources in the region.

Pollution and the unsustainable use of natural resources threaten to undermine the foundations of the private sector economy in the Northern Areas. The Northern Areas are also characterised by poverty and large gender inequities, both of which act as significant constraints to development.

Despite the high demand for agricultural produce from the Northern Areas, such as organic fruit and disease-free vegetable seed, farming in the region continues to be dominated by subsistence-oriented smallholdings. There

Syed Sajjad Imran

Locally woven woolen cloth, *pattu*.

has been insufficient development of the commercial potential of the region's agricultural sector.

An additional concern is the fact that only a very small proportion of the funds collected by the government from the NA's economic activities is spent on improving services within the region. For example, the taxes and import duties collected at the Sust Dry Port are deposited in the Federal Treasury and are not utilised to enhance the port's facilities. Similarly, the fees collected from mountaineering expeditions are not spent on improving the NA's tourism industry.

Various NGOs have sought to strengthen the NA's private sector, by building the capacity of key service providers such as banks, providing training for entrepreneurs, assisting small businesses to access sources of finance, and promoting the creation of on-farm assets (e.g., through irrigation and land development). NGOs have also been particularly active in promoting the development of cottage industries in the Northern Areas. The Dry Fruit Project, operated by AKRSP, has been especially successful.

These efforts have been complemented by a number of other initiatives, including the creation of the Northern Areas Chamber of Commerce and Industries (NACCI) in 1995. NACCI provides a forum at which the concerns of the business community can be voiced, and also advocates for public and private sector policy reform; current membership consists of 499 members from local communities. Both the government and the NGO sector have also made considerable investments in poverty alleviation programmes and infrastructural improvements.

Strategic Priorities

Under the auspices of the NASSD, measures will be initiated to:

Principal Actions

- n Create a more conducive enabling environment for private sector development, for example, by adopting clear economic policies and an unambiguous regulatory framework;
- n Address the constraints to enterprise development, by: establishing a Small and Medium Enterprise (SME) Development Authority; promoting the provision of financial assistance to entrepreneurs; and organising training courses on SME development;
- n Capitalise upon the region's comparative advantages, unique opportunities and special niches, including: ecotourism; forestry; fruit production and export (both fresh and dry); vegetable marketing; seed production and export; the cultivation and marketing of medicinal plants; gemstone mining; trade with China and the CIS countries; the generation of hydro-electricity; and traditional cottage industries;
- n Enhance on-farm assets and opportunities, by promoting increased irrigation and land development, and encouraging improvements to crop management, animal husbandry and agricultural marketing;
- n Strengthen NACCI, by: disseminating information on environmentally-friendly business practices to all members; providing training courses on strategy development; and promoting linkages with the

Federation of Pakistan Chambers of Commerce and Industry (FPCCI) and other relevant institutions;

- n Enhance the availability of micro-credit.

Supporting Actions

- n Improve the NA's physical infrastructure, by promoting investment in transportation, communications and power;
- n Develop and implement special programmes to alleviate poverty, designed to benefit the poorest of the poor;
- n Continue to address gender inequities by: facilitating the creation of Women's Organisations; employing women in both the public and private sectors; and promoting gender sensitive policies. Women will also be assisted with the development of small-scale businesses at the village level, as a means of increasing household income. In this regard, women's access to credit will be enhanced, for example, by encouraging the First Women's Bank to extend its operations to

the Northern Areas. A special effort will also be made to ensure that marketing and training facilities are made available to women, particularly in rural areas;

- n Establish an Export Promotion Bureau, in order to encourage the expansion of trade activities with China. The facilities at the Sust Dry Port will be improved, in order to enhance the movement of goods down-country and to China;
- n Request the federal government to ensure that a greater proportion of the funds collected from the Northern Areas is returned to the point of collection, in order to enhance service provision. For example, fees collected from mountaineering expeditions should be used to strengthen the NA's tourist industry;
- n Investigate the desirability/feasibility of providing subsidies and tax breaks for new investments;
- n Explore the potential for establishing community-owned businesses, in which profits would accrue to community funds rather than to individuals.



Socio-Economic Development and Poverty Alleviation



C H A P T E R

05

Recent research both in and adjacent to the Northern Areas has demonstrated that the region has made considerable social and economic progress over the last two decades. Amongst other trends, there have been impressive rises in literacy rates, agricultural production and income generation. The irrigation network has been significantly expanded, and access to health and education services has also been substantially improved.

Some of the factors contributing to these trends have included:

- n The development of the Karakoram Highway, which has led to a dramatic improvement in access;
- n The evolution of a development paradigm that places significant emphasis on the role of NGOs and civil society;
- n The initiation of the Aga Khan Rural Support Programme and a range of other projects which address both livelihood and conservation issues;
- n The NA's social capital and relatively non-hierarchical social structure, which have provided particularly good opportunities for collective action;
- n A national Gross Domestic Product growth rate of 6.5 per cent in the 1980s and early 1990s. This enabled many NA inhabitants to seek employment down-country, and to send remittances back to the Northern Areas.

Despite these gains, however, much more will need to be accomplished if the Northern Areas are to be placed firmly on the path towards sustainable development. Population growth, for example, remains rapid, and is leading to mounting pressures on the NA's social services and natural resources. Between a quarter and one-third of the region's population is believed to live below the poverty line. Women continue to have fewer rights and opportunities than men, and to suffer from a disproportionately large workload. The education sector is characterised by high drop-out rates and large disparities between male and female enrolment. Environmental health remains poor, and sanitation and water-related diseases continue



IUCN Pakistan

Growing population, a resource but a concern as well.

to affect thousands of NA residents every year. The Northern Area's unique cultural heritage is also at risk.

This chapter examines these socio-economic issues in greater depth, and presents a strategic framework for action in eight priority thematic areas:

- n Population;
- n Poverty;
- n Gender;
- n Education;
- n Environmental health;
- n The urban environment;
- n Energy;
- n Cultural heritage and sustainable tourism.

POPULATION

Identifying the Issues

The 1998 census suggested that the NA's population was approximately 870,000, and growing at a rate of 2.47 per cent a year. The age-sex pyramid for the Northern Areas is particularly striking. It is estimated that nearly 50 per cent of the population is under the age of 15. Of the total female population, approximately 39 per cent is currently believed to be of reproductive age. This implies that - even if the NA's birth rate were immediately reduced to replacement level - the demographic momentum of the population would still result in more than a 75 per cent increase over the next two decades, before eventually beginning to stabilise.

Although the Northern Areas' human population can be considered the region's ultimate resource, it is also true that an ever-increasing population cannot be sustained by the NA's fragile and limited natural resource base. The NA's rapid rate of population growth is also placing an increasing strain on the region's already over-stretched social services, particularly within the health and education sectors.

Government initiatives to address these concerns have included the initiation of the National Programme for Family Planning and Primary Care, which trains local women to provide non-clinical family planning services; and the Family Planning and Population Programme, which runs a regional health centre and 12 family welfare clinics. NGOs such as the Family Planning Association of Pakistan have also been actively involved in the population field.

Strategic Priorities

The Northern Areas' progress towards sustainable development would be significantly enhanced if the rate of population growth could be slowed. This will require a firm political commitment to fertility reduction programmes, an intensification of the efforts to enhance the status of women, awareness raising among a broad array of stakeholders, and increased investment in the NA's social sectors. Under the auspices of the NASSD, measures will be initiated to:



obviously, not born to be poor.

Principal Actions

- n Enhance awareness of population issues by undertaking a concerted communications programme, using the print and electronic media as well as social service providers;
- n Increase investment in adult literacy programmes, particularly for women;
- n Expand family planning services in both rural and urban areas;
- n Reduce child mortality, for example, by expanding immunisation coverage;
- n Raise awareness of women's health issues and reproductive health rights;
- n Improve access to reproductive health facilities;
- n Ensure the provision of safe family planning methods at Basic Health Units and private health centres;
- n Sensitise men to the importance of family planning programmes.

Supporting Actions

- n Make greater use of integrated planning concepts.

POVERTY

Identifying the Issues

There is very little information about the incidence of poverty in the Northern Areas. According to the Farm Household Income and Expenditure Surveys carried out by AKRSP between 1991 and 1997, 32 per cent of the population of the Northern Areas could be classified as poor, and nine per cent as very poor. Average household

income was approximately PKR 10,000 per year, or less than 60 per cent of the national average. In 1998, a second study estimated that per capita income in the Northern Areas was PKR 7,500 per year, and suggested that 28 per cent of the population was below the poverty line. These figures can be compared with national statistics for the same year, which indicated that 31 per cent of Pakistan's rural population was below the poverty line and that annual per capita income was PKR 18,901.

Although data for the Northern Areas as a whole are generally lacking, more detailed records on the incidence of poverty in Gilgit District between 1982 and 1998 are available from AKRSP. These data indicate that per capita income had risen from 46 per cent of the national average in 1982/83 to 68 per cent in 1997/98. Perhaps even more importantly, the data suggest that only 23 per cent of the district's population was below the poverty line.

The results of these various studies are striking, since they suggest that the proportion of the population living below the poverty line in the Northern Areas is similar to - or perhaps even lower than - the national figure. This is surprising, because the perception of mountain areas is that they are among the poorest regions in Pakistan. The figures, however, may be misleading; because mountain inhabitants have a greater need for high caloric intakes, protective clothing and permanent shelters, many families that appear to be above the poverty line may in fact be unable to fulfil their basic needs.

The causes of poverty in the Northern Areas are varied. Governance factors include: the lack of strong pro-poor

polices; the social and political exclusion of the Northern Areas in national decision-making processes; corruption; and political instability. Important economic factors include: the recent slow-down in Pakistan's economic growth; international shocks such as 11 September, which have negatively impacted the NA's tourist industry and reduced the number of alternative income-earning options available to the poor; and economic austerity measures, which have led to lower budget allocations for poverty alleviation programmes.

Social factors also have an effect on poverty. For example, the property rights of the poor to crucial resources (such as land, water and trees) have become increasingly restricted over time. The poor also have limited access to a wide range of social services, such as education, health care and population planning services. The situation is further exacerbated by a variety of geophysical factors, including the Northern Areas' fragility, marginality and inaccessibility (Box 5).

There is considerable empirical evidence to suggest that the poor suffer disproportionately from environmental degradation. Processes such as deforestation, over-grazing and land degradation have a particularly severe impact on the poor, not only because they are heavily dependent on environmental resources for their livelihoods, but also, because they have less capacity to protect themselves. For example, the Northern Areas are highly vulnerable to environmental disasters such as landslides and floods, whose frequency has increased over the years because of deforestation; these events threaten both the lives and the livelihoods of the poor.

Many of the programmes and projects currently underway in the Northern Areas are seeking to address issues

related to poverty, population and environmental degradation. Several different approaches are being used, including: *rural development approaches*, as exemplified by the Aga Khan Rural Support Programme; *conservation and sustainable livelihoods approaches*, pioneered by organisations such as IUCN and WWF; *sustainable health approaches*, such as the Northern Health Programme (NHP); and *population welfare approaches*, such as the Social Action Programme (SAP). Strangely, although the Northern Areas are prone to disasters such as floods and landslides, there do not appear to be any programmes or projects currently addressing the issue of disaster preparedness.

At the national level, the Planning Commission (PC) and the Ministry of Finance and Economic Affairs are now finalising a Poverty Reduction Strategy Paper (Box 6). This represents a unique opportunity to develop an explicitly pro-poor policy framework that recognises the importance of the environment.

Strategic Priorities

The poor are particularly vulnerable to environmental degradation because of its impacts on their livelihoods and their health, and because of their increased exposure to natural disasters such as landslides. The principal thrust of the NASSD, therefore, will be to help the poor reduce - and cope with - vulnerability. Under the auspices of the Strategy, measures will be taken to:

Principal Actions

- n Adopt a sustainable livelihoods (SL) approach as the principal framework in which to analyse mountain

Box 5

The Northern Areas and "Mountain Specificities"

Several authors have argued that the discussion of poverty and livelihoods in mountain areas should be shaped by the geophysical characteristics ("mountain specificities") of these regions. Mountain specificities play a crucial role in conditioning the socio-economic situation of mountain inhabitants, and include: inaccessibility; fragility; marginality; diversity; comparative advantage; and niche. The first three factors are negative aspects that constrain development, while the last three are potentially positive aspects of mountain environments.

Fragility

Like other mountainous regions, the Northern Areas are prone to natural hazards such as landslides. These hazards not only make the lives of local communities insecure and vulnerable, but also, threaten livelihoods by destroying agricultural lands, crops, livestock and houses.

Marginality

Only two percent of the Northern Areas is believed to be cultivable. Many households own less than one hectare of land, and much of this land is of limited productivity.

Inaccessibility

Inaccessibility affects the NA's communities in three distinct ways. In the first instance, access to some biological resources (such as forests) has become increasingly restricted, as state bodies have taken over the role of natural resource management from local institutions. Secondly, local communities lack access to markets, technologies and credit; this makes it difficult for them to sell their products down-country, and to obtain inputs and services that could enhance their productivity. Thirdly, because of the region's physical isolation and relatively small population, it has not been able to influence national socio-economic or political processes in its favour; this has been further exacerbated by a misperception within central government that the Northern Areas lack development potential.

In November 2001, the Government of Pakistan released its Interim Poverty Reduction Strategy Paper (IPRSP). The IPRSP sought to bring an integrated focus to the diverse set of factors that have an impact on the poor, and in doing so, "to meet the twin challenges of reviving broad based equitable growth and reducing poverty." The core elements of the interim strategy included efforts to engender growth, implement broad-based governance reforms, improve social sector outcomes and reduce the vulnerability of the poor to social and economic shocks.

The interim strategy provided the basis for the development of the main Poverty Reduction Strategy Paper (PRSP), through a participatory process involving a broad range of stakeholders. The latest version of the Poverty Reduction Strategy Paper addresses a number of important gaps that were identified in the interim strategy. In particular, the PRSP now articulates a more comprehensive approach to poverty alleviation, which incorporates rural development, gender issues, employment and the environment. In addition, the PRSP includes a more focused strategy on human development. The key features of the PRSP have been summarised as follows:

It is home grown, involving broad based participation by key stakeholders; it is result oriented, focusing on monitorable outcomes that benefit the poor; it is comprehensive, recognizing the multi-dimensional nature of poverty; it is prioritized, so implementation is feasible in both fiscal and institutional terms; it is public-private partnership oriented; and it is aligned with the medium to long term perspective of Public Expenditure Review and the Millennium Development Goals.

livelihoods and poverty issues. The starting point of the SL framework is the assets and strategies of the poor, not their deprivation;

- n Accord emphasis to the development of pro-poor macro policies;
- n Develop new legislation to address access and property rights, especially in relation to protected areas and forests;
- n Expand social protection in order to reduce the environmental vulnerability of the poor, for example, by strengthening disaster preparedness. Amongst other measures, the possibility of establishing "emergency response cells" in different parts of the Northern Areas will be explored;
- n Continue to promote broad-based economic growth in the Northern Areas. Particular emphasis will be placed on creating pro-poor markets that bring value to environmentally-friendly products and services;
- n Design and implement rural development and income generation programmes, specifically targeted at the poorest of the poor;
- n Enhance regional and local governance systems in order to strengthen the poor's access to resources, and to ensure greater community involvement in environmental management;
- n Ensure that future poverty alleviation efforts build upon traditional knowledge systems and local coping strategies.

Supporting Actions

- n Promote the development of a more enabling macro-economic framework (e.g., a national accounting system that reflects environmental values);
- n Encourage further research into the population, poverty and environment nexus in the Northern Areas.

GENDER

Identifying the Issues

According to the most recent census, women constitute approximately 48 per cent of the Northern Areas' population. Their contributions to the region's well-being, however, remain under-valued and largely unseen, and their needs and aspirations often remain unrecognised. Despite the execution of many NGO and government initiatives in the Northern Areas over the last two decades, there have been only modest improvements in the economic and social conditions of women. By and large, women are still secluded and have fewer rights, less mobility and fewer economic opportunities than men.

Despite these constraints, women in the Northern Areas fulfil a wide variety of productive, reproductive and social roles, and are active in many different spheres of life. There are, however, important differences between districts. In Gilgit, for example, women have relatively more opportunities to take part in development activities than they do in Diamir, where female participation in the development process is noticeably limited.

Household economies in the Northern Areas are intricately linked to labour intensive farming. However, the continued out-migration of the male population in search of better income earning opportunities has increased the involvement of women in non-traditional agricultural activities, both in terms of labour and farm management. Women must now assume a greater proportion of farm chores than they did in the past, and often carry a greater workload than men in the agricultural sector. The results of the Farm Household Income and Expenditure Surveys carried out by AKRSP between 1991 and 1998 have shown that levels of female poverty, vulnerability and insecurity are on the increase.

The poor availability of fuel wood and safe drinking water were identified as major concerns by the women

who took part in the consultative meetings organised by P&DD and IUCN. Access to health services also remains an important issue. Although the number of health facilities in the NA's rural areas has increased significantly in recent years, access continues to be constrained by the region's difficult terrain and the remoteness of many communities. It is estimated, for example, that only 51 per cent of mothers in the Northern Areas received antenatal care during their last pregnancy. Women and girls are more likely to have nutritional deficiencies than men or boys; the prevalence of protein-energy malnutrition, anaemia and goitre, for example, is higher among adult women than men. As a result of these factors, female mortality continues to be high; this has led to an abnormally low female to male sex ratio in the region.

Although school enrolment is increasing in the Northern Areas, significant gender disparities continue to exist, particularly at the secondary level; female enrolment rates at high school level, for example, are only 17 per cent - less than half the male rate of 39 per cent. Similarly, the literacy rate is much lower among girls and women than among boys and men.

The key gender issues within government are weak gender sensitive policies, inefficient planning and poor implementation of gender programmes and projects. A particular concern is that gender issues have not yet been institutionalised within project planning and approval mechanisms (e.g., PC-1 and PC-2 forms). With the exception of the Health and Education Departments - where

women constitute almost 50 per cent of the workforce - the employment of women within government institutions is not generally encouraged. In many institutions, even basic facilities such as separate washrooms are lacking.

The government has launched a variety of initiatives to begin addressing these gender inequities. There are, for example, five reserved seats for women on the Northern Areas Legislative Council. Provisions have also been made to encourage the recruitment of women in the Police Department, LBRDD and P&DD. In July 2002, a Women Development Unit was established in P&DD, which seeks to promote skills development, awareness raising and female entrepreneurship. The importance of gender concerns has also been increasingly recognised by the government's large development projects, including the Northern Areas Education Project (NAEP), NADP and NHP.

The NGO sector has also invested significantly in addressing gender concerns. The achievements of AKRSP - which pioneered the creation of grassroots Women's Organisations - have been particularly noteworthy.

Strategic Priorities

The NASSD will seek to ensure that all sectors of society - including women and other disadvantaged groups - are socially, economically and politically empowered to take an active part in the sustainable development of the Northern Areas. Within the framework of the Strategy, measures will be undertaken to:



Serandip

Equally contributing to food security of the family.

Principal Actions

- n Integrate gender concerns into the policies, programmes and projects of priority development sectors, by: reviewing and amending the guidelines for the preparation of PC-1 forms; promoting research on gender issues within priority sectors; incorporating gender analyses within the monitoring and evaluation mechanisms for programmes and projects; and developing gender-specific indicators so that the gender impacts of programmes and projects can be assessed;
- n Promote the continued development, empowerment and expansion of Women's Organisations;
- n Design and implement special programmes to increase women's access to education, health and other social services;
- n Build the capacity of key stakeholders to address gender issues, both within government and civil society. Large NGOs with existing in-house capacities (e.g., AKRSP) will be encouraged to play a role in strengthening the capabilities of other partners;
- n Promote female entrepreneurship, particularly within cottage industries;
- n Enhance the provision of credit facilities for women;
- n Institute the use of quotas to promote the employment of women within the public sector;
- n Extend the family laws to the Northern Areas.

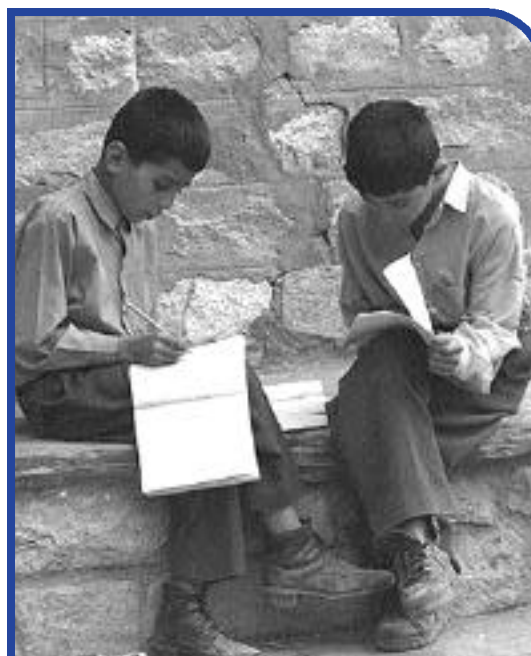
Supporting Actions

- n Raise awareness about gender issues, particularly among men, the media and "agents of change" (e.g., government officers, policy makers and religious leaders). These efforts will be complemented by strategies to sensitise the print and electronic media to gender concerns;
- n Organise leadership courses for women professionals;
- n Establish women-operated institutions, such as banks, schools, colleges and libraries;
- n Establish crisis centres for women in difficult circumstances.

EDUCATION

Identifying the Issues

There are currently some 1,764 primary and secondary schools in the Northern Areas, as well as 18 colleges. The region's first university - the Karakoram International University - has recently been established at Gilgit, and offers post-graduate classes in a number of selected disciplines. In addition to these institutions, there are numerous madrassas (religious schools) in the Northern Areas, located in even the most remote communities.



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Education, still need lot more improvement.

Despite significant improvements over the last two decades, enrolment patterns in the Northern Areas are still characterised by high drop-out rates and large disparities between male and female student numbers. In 1998/99, for example, the enrolment rate for boys at primary, middle and high school levels was 80 per cent, 63 per cent and 39 per cent respectively; female participation rates for the same years were only 56 per cent, 28 per cent and 17 per cent.

The overall literacy rate in the Northern Areas is estimated to be 33 per cent - substantially below the national rate of 54 per cent. As with enrolment patterns, there are significant disparities between the male and female population: the estimated literacy rate for males is 40 per cent, whereas the estimate for females is only 25 per cent. Despite these disparities, it is important to note that the overall literacy rate has shown a dramatic improvement since 1981, when it was estimated to be only 13.8 per cent. This is a reflection of the large investments in the education sector made by government, NGOs and the international donor community.

Environmental education remains a relatively new concept in the Northern Areas. Its introduction has been confronted by a range of constraints, many of which affect the educational system as a whole. There are, for example, a number of important weaknesses in the teaching system, including the absence of monitoring and evaluation mechanisms, the lack of refresher courses, and the general unavailability of supplementary teaching materials.

IUCN Pakistan



Playing active role in planning.

Although the existing curriculum contains a significant amount of basic information on the environment (e.g., information on forests and agriculture), this material remains diffuse. As a result, many teachers find it difficult to incorporate environmental issues into their lesson plans. The situation is exacerbated by the lack of experienced resource persons and master trainers who can provide teachers with the skills and knowledge they require in order to adopt environmental education approaches.

Another significant obstacle is the lack of institutionalised systems to facilitate the integration of environmental education into the Department of Education's programmes, projects and activities. Many educators and teachers have noted that they are unable to promote environmental education within their respective schools because of a lack of support from management. Similarly, environmental education has not yet been integrated into the co-curricular activities or programmes of the non-formal education sector.

Both the government and the NGO sector have been active in addressing these constraints and issues. The Northern Areas Education Project has been a particularly important initiative; this has led to the development of a new primary school curriculum, and to the inclusion of environmental aspects in the curriculum of classes one to five. The College of Education, Gilgit, now teaches the subject of environmental education to both pre-service and in-service trainee teachers, using materials developed with the assistance of IUCN. In an effort to enhance coordination and dialogue among the various environmental education initiatives in the Northern Areas, a multi-stake-

holder Education Interest Group has also been established, with representatives from government, NGOs, academia and the NA's religious institutions.

Numerous field initiatives have also been undertaken, aimed at enhancing environmental education and awareness at the community level. Large NGOs such as the Aga Khan Education Services (AKES) and WWF have played prominent roles, but many smaller NGOs and locally-based social welfare organisations are also involved.

Strategic Priorities

Under the auspices of the NASSD, steps will be taken to:

Principal Actions

- n Improve access to educational facilities for both girls and boys;
- n Explore the potential for creating a community management system for schools;
- n Increase investment in teacher training. Particular emphasis will be accorded to building the environmental education capacity of teachers, for example, by ensuring that environmental education remains a permanent component of the teacher training curriculum at the College of Education, Gilgit. The development of environmental education master trainers and resource persons will also be actively promoted;
- n Increase investment in the development of learning materials;
- n Promote the inclusion of appropriate environmental information in textbooks;
- n Extend the curriculum re-development process to the secondary level, and ensure that environmental themes are integrated into the middle school and high school curricula. Special reference will be made to the NA's unique environment and to the importance of personal hygiene and environmental health. Islamic teachings related to the environment will also be highlighted;
- n Integrate environmental concerns into literacy programmes, including those for adults, and co-curricular activities, for example, by: supporting the establishment of additional environment clubs; promoting the formation of Boy Scout and Girl Guide groups within the NA's educational institutions; and initiating environmental science projects;
- n Enhance teacher effectiveness by promoting the use of monitoring and evaluation mechanisms to assess teacher performance.

Supporting Actions

- n Establish a degree course in environmental management at the Karakoram International University, with a special focus on mountain environments and the unique characteristics of the Northern Areas;

- n Explore the desirability/feasibility of making environmental studies a compulsory subject (similar to Pakistan Studies) for all senior level classes;
- n Include environment as a subject in both pre- and in-service training programmes for civil servants.

ENVIRONMENTAL HEALTH

Identifying the Issues

The population of the Northern Areas suffers from a wide range of environmental health problems. Although data remain scarce, information collected by the Directorate of Health (DoH) provides an indication of the severity of the situation. Diseases such as cholera, typhoid, shigellosis and amoebiasis are prevalent. Asthma and other respiratory ailments affect tens of thousands of people every year. Diseases caused by worms, such as ascariasis and ancylostomiasis, are widespread and contribute to both anaemia and malnutrition.

The availability and quality of water supplies play a particularly important role in environmental health, as does the availability of proper sewerage and drainage systems. Although official statistics suggest that 40 per cent of the region's households have access to piped water services, a recent, independent study concluded that actual coverage may be as low as 20 per cent. Similarly, most of the NA's settlements lack proper sewerage and drainage systems. As a result of these conditions, virtually all the water supply systems in the Northern Areas are contaminated with human and animal waste, leading to a wide range of diseases. In January 2000, for example, the Army Field Hospital at Gilgit reported that some 47,152 patients had been treated for cholera over a period of just four months.

Over 99 per cent of all households in the region use firewood for cooking and heating. In the absence of adequate ventilation, this practice leads to high levels of indoor air pollution. Respiratory diseases are particularly prevalent in the Northern Areas and are a significant cause of mortality. Women and children are particularly at risk, as they spend a greater proportion of their time indoors than men.

Other factors which are believed to have an impact on environmental health in the Northern Areas include poor housing quality, poor solid waste management practices, the widespread use of chemical fertilisers and pesticides, uncontrolled urbanisation and the lack of land-use planning.

One of the key constraints to improving the situation is the lack of priority accorded to environmental health issues. There is also a lack of synergy and coordination in the health sector, particularly between the government health service and NGOs. The situation is exacerbated by insufficient capacity within the NA's health facilities and the remote and difficult terrain.



IUCN Pakistan

Health, far behind the targets.

The health care system remains significantly biased towards the NA's urban areas; sixty-eight per cent of the region's government-supported hospital beds, for example, are located in the two main towns of Gilgit and Skardu. An additional concern is that insufficient attention has been accorded to documenting and analysing the traditional health care system, and to exploring ways in which it might be strengthened so that it complements the efforts of government and NGOs more effectively.

In an effort to address these constraints and concerns, the government has undertaken a number of important initiatives, including: the Northern Health Project, which has been designed to improve the quality and sustainability of primary health care; and the Social Action Programme.

NGOs have also made a significant contribution to the delivery of primary health care in the region. As a result of interventions by Aga Khan Health Services Pakistan (AKHSP), for example, there have been dramatic declines in both infant and maternal mortality rates within target areas, as well as large improvements in the immunisation rates of children and pregnant women. The Water and Sanitation Extension Programme (WASEP) has played an important role in developing the region's water supplies. The Karimabad Town Management Society (KTMS) has been involved in the development of a new sewerage system for Karimabad.

The Building and Construction Improvement Programme (BACIP) has shown that relatively small investments in housing can have dramatic impacts on the incidence of environmental health problems. Similarly, the Water, Sanitation, Hygiene and Health Studies Project

Syed Sajjad Imran



Safe drinking water, a basic right.

(WSHHSP) has demonstrated that simple interventions can lead to marked improvements in water quality.

Strategic Priorities

Within the framework of the NASSD, measures will be initiated to:

Principal Actions

- n Immediately stop the practice of dumping sewage into the kuhl system;
- n Raise public awareness about environmental health issues, through both the formal and non-formal education systems as well as the media;
- n Promote the adoption of simple measures to reduce the occurrence of water-borne and sanitation-related diseases, including: the use of boiled water for drinking and cooking; the proper disposal of domestic waste; the use of soap; and the cleaning of drains;
- n Promote the adoption of basic improvements to housing design, construction and ventilation, in order to reduce the incidence of respiratory diseases and other ailments;
- n Increase public sector and NGO investment in water supplies, sewerage, solid waste management, housing and land-use planning;
- n Accord higher priority to the provision of primary health care and pre- and post-natal care in the NA's rural areas. Amongst other measures, traditional health practitioners will be trained to act as focal points for the introduction of primary health care among local communities;
- n Recruit additional health staff, particularly doctors and Lady Health Visitors (LHV's);

- n Improve the existing health delivery infrastructure;
- n Introduce new and innovative approaches to health care, such as the networks of "barefoot doctors" that have been successfully used in China.

Supporting Actions

- n Promote greater cross-sectoral cooperation as well as the formation of new types of partnerships, involving government, NGOs, traditional health practitioners and the private sector;
- n Improve coordination through the development of a Health Management Information System;
- n Build the capacity of local governments to appraise development options and their potential impacts on public health;
- n Enhance access to the NA's health facilities by improving the region's road infrastructure and transport system.

THE URBAN ENVIRONMENT

Identifying the Issues

According to the 1998 census, approximately 14 per cent of the NA's population can be classified as urban. The main urban centres are the towns of Gilgit, Skardu, Chilas, Gahkuch and Khaplu. Gilgit is the largest town, with the 1998 census data indicating a total population of approximately 56,700.

The results of the 1998 census suggest that the NA's urban population is growing at a rate of 0.8 per cent per year. The NA's rural populations are drawn to the urban

areas because of the prospects of obtaining better access to education, medical facilities and employment opportunities. Gilgit and Skardu, as well as smaller towns in the Nagar and Hunza Valleys close to the Chinese border, have also attracted immigrants from outside the Northern Areas, including NWFP and the Punjab. There is also a significant amount of seasonal migration, particularly during the winter months when the rural poor seek temporary employment in the NA's urban areas. In the summer, there is an influx of tourists to the region.

Although the rate of growth in the NA's urban areas is still not as high as it is in other parts of Pakistan, it is significantly greater than the absorptive capacity of the region's towns and urban centres. Unplanned urbanisation has strained the Northern Areas' existing services and utilities, and exposed critical gaps in the region's urban infrastructure.

The NA's urban water supply systems, for example, were designed in the late 1970s and based on an estimated demand of only 67 litres per capita per day - a figure which is less than ten per cent of the design criterion used for Islamabad. As a result, the NA's water storage and associated supply and delivery systems are unable to meet the growing urban demand for water. Current water storage capacity in Gilgit town is estimated to be 15 times less than existing demand requires. Water quality is also a serious concern; for example, virtually all the drinking water samples from Gilgit examined by WSHHSP were contaminated with *E. coli*.

Existing drainage and sanitation systems cannot cope with the current volume of waste-water and sewage. There is an overall lack of maintenance, leading to frequent blockages and overflows. Although reliable data are lacking, the volume of waste-water is not only expected to rise in the future, but also, to contain increasing amounts of commercial and industrial effluents, some of which are hazardous in nature.

The disposal of the growing volumes of municipal solid wastes is becoming increasingly difficult. Although the organisational structures to manage solid waste are largely in place, the system is constrained by a lack of long-term disposal facilities (e.g., sanitary landfills), insufficient equipment and resources, and poor management. Insufficient inter-departmental cooperation and a lack of awareness have further compounded the problem.

The NA's road system is increasingly inadequate to service the region's growing volumes of traffic. According to the NA Traffic Office and the Federal Bureau of Statistics, there are currently over 24,000 registered vehicles in the Northern Areas. Traffic flows are particularly high in the urban centres of Gilgit, Karimabad and Skardu. Urban settlements situated along major connecting roads, such as the Karakoram Highway, also experience high volumes of traffic.

It is estimated that household electricity demand within the NA's five district headquarters already outstrips production by some 19 MW during the winter. There are, for example, nearly 3,000 pending applications for domestic electricity connections in the two urban centres of Gilgit and Skardu alone. If the needs of small-scale industries and commercial enterprises such as hotels and restaurants are taken into account, the shortfall in supply becomes even greater. Overloading of the electrical distribution system leads to frequent breakdowns and significant line losses. Load shedding is a common occurrence, and urban areas frequently experience power black-outs at night.

The government institutions charged with the responsibility for managing urban settlements in the Northern Areas are constrained by many factors, including: insufficient financial and human resources; lack of coordination; insufficient technical expertise (e.g., in subjects such as urban planning and environmental management); inadequate monitoring and evaluation systems; and ambiguous roles and responsibilities both within and amongst departments.

Financial constraints are particularly acute. Until recently, district and local government bodies generated their funding directly, through the use of the octroi system. In July 1999, however, the system was abolished, and funding is now provided through the Local Bodies and Rural Development Department. Although urban requirements have grown increasingly acute since the adoption of this new system, budgetary allocations to district councils and municipalities have remained largely unchanged. As a result, many institutions are experiencing revenue



IUCN Pakistan

Discussing urban environment issues in the Interest Group meeting.

shortfalls, and have been unable to meet even their most basic commitments.

Several initiatives have been undertaken to address these constraints and concerns. The Northern Areas Public Works Department (NAPWD) has recently developed a range of new projects, aimed at enhancing electricity and water supplies in the NA's urban settlements. The NGO sector is also beginning to turn its attention to urban issues. For example, a successful, community-based, solid waste management system has been developed in the Hunza region by the Hunza Environmental Committee (HEC); the project now sustains its operations through user fees and is independent of external donor support.

In 2002, the civil administration and the army carried out a joint exercise to remove roadside encroachments from nearly all the NA's urban settlements. Road widening and paving are now in progress, although there continue to be problems associated with road alignment, drainage and rights of way. In Gilgit and Skardu, the bus terminals have been moved away from the town centres. In an effort to control the growth in the number of vehicles, there is currently a ban on the registration of new vehicles in the Northern Areas.

Strategic Priorities

The NASSD's core objective in relation to the urban environment will be to improve the maintenance and management of existing infrastructure, and to provide critical new infrastructure where this does not exist. In particular, measures will be undertaken to:

Principal Actions

- n Build the capacity of the responsible government line departments and municipal councils;
- n Improve both the quality and quantity of water supplies, by: upgrading critical water supply infrastructure; expanding water treatment facilities; and establishing water quality testing laboratories;
- n Enhance the provision of electricity in urban areas. As the construction of new power stations is very costly, first priority will be accorded to ensuring more efficient use of existing electricity supplies;
- n Enhance urban drainage and sanitation systems, by: separating drainage and sewage infrastructure; adopting new design criteria; and establishing sewage treatment facilities;
- n Develop a comprehensive solid waste management strategy for the Northern Areas, which addresses domestic, commercial and hazardous wastes. In the first instance, the current disposal site at Gilgit will be abandoned and a new site located;
- n Improve urban road systems, by controlling haphazard on-street parking and relocating truck terminals, workshops and industries into designated areas away from urban settlements;
- n Assess the feasibility and desirability of introducing cost recovery systems (e.g., user fees) for selected urban services.

Supporting Actions

- n Ensure that environmental concerns are more effectively integrated into sectoral planning and urban



P&D Department, NA

Transport sector, most attractive investment.



Power generation, key priority for the public sector.

- development projects, through the use of EIAs;
- n Ensure that improvements to the urban environment are undertaken as part of a wider development strategy for the Northern Areas as whole. This will be aimed at providing adequate services and economic opportunities in the NA's rural areas, thereby reducing the relative attractiveness of the region's urban centres.

ENERGY

Identifying the Issues

The principal sources of energy in the Northern Areas are firewood, kerosene oil, candles, hydropower, thermal power, dung cake, diesel oil, batteries, liquefied petroleum gas (LPG) and coal. Despite this diverse array of energy sources, the region currently has the lowest per capita rate of energy consumption in Pakistan.

Firewood is the main source of domestic energy and is used for cooking and heating. Field surveys conducted by the Water and Power Development Authority (WAPDA) with German technical assistance (GTZ) revealed that 99.6 per cent of all respondents used firewood as fuel for domestic purposes. Kerosene is currently the second most widely used energy source in the Northern Areas. It is readily available on the market, and is used primarily for lighting and cooking. Even in the NA's electrified regions, kerosene is commonly used because of frequent disruptions to the power supply.

Most of the NA's electricity is generated by small hydropower stations, with capacities ranging from 50 kW

to 4,000 kW. There are currently 81 hydropower stations in operation in the region, with an installed capacity of 46.44 MW. These plants are supplemented by 15 diesel powered thermal stations, with an aggregate capacity of 4.3 MW. At present, the power system in the Northern Areas is independent of the national grid.

Despite the region's considerable number of hydropower and thermal power plants, only 42 per cent of the NA's households currently have access to electricity. There is a large and rapidly growing gulf between existing supplies of electricity and regional demand. The current shortfall is estimated to be in excess of 32.5 MW, and is expected to rise significantly in the future.

Efforts to improve the Northern Areas' electricity supplies are confronted by a number of significant constraints. The NA's electricity infrastructure, for example, is overloaded and ageing; many conductors and transformers were erected over two decades ago and have not yet been upgraded or improved. As a result, electricity losses and voltage drops are common problems. According to NAPWD, cumulative transmission and distribution losses in the NA's power supply system are currently estimated to be on the order of 30 per cent.

Despite the Northern Areas' outstanding potential for the development of hydroelectricity, investment in the energy sector has generally been low; although hundreds of potential hydel sites have been identified, only a small proportion has been developed to date. Private sector investment has been constrained by the lack of enabling policies, incentives and mechanisms, and the fact that the

Northern Areas are not connected to the national grid. In rural areas, the expansion of electricity coverage is constrained by the NA's difficult terrain and the widely dispersed nature of many communities.

Other constraints within the power sector include insufficient capacity within NAPWD; poor operating practices; and insufficient maintenance of energy facilities. As a result of these conditions, equipment is often improperly used, leading to inefficient power generation, rapid deterioration of machinery and a shortened economic lifespan for the NA's energy facilities. The current system of power distribution and billing is also problematic; in its existing state, the system is vulnerable to a wide range of problems (e.g., unauthorised electricity connections), and results in the loss of considerable revenue for NAPWD.

Although several of the NA's more recent energy projects have been the subject of EIAs, most of the region's power stations have been constructed without a thorough analysis of their potential impacts. Hydropower is a relatively clean, renewable source of energy, but poorly planned schemes can have serious negative environmental and social effects. Other large-scale sources of energy, such as thermal power stations, can contribute to air pollution and acid precipitation.

An additional concern is the lack of a Strategic Environmental Assessment (SEA) for the NA's energy sector as a whole. At present, for example, there is no mechanism in place to assess the likely cumulative impacts of the region's many different hydropower schemes; although each project on its own may be relatively benign,



Syed Sajjad Imran

Indigenous way to produce electricity but still viable.

the combined impacts of multiple initiatives may be severe.

In the absence of sufficient electricity supplies, the great majority of the NA's population makes use of alternative energy sources to meet its needs. There are, however, several important environmental impacts associated with this pattern. For example, the continued felling of trees and bushes for firewood is contributing to deforestation in many parts of the region. The use of dung for fuel instead of for fertiliser is believed to be reducing the fertility of the NA's agricultural soils. The use of coal – particularly the high-sulphur coal that is typically burned in the Northern Areas – can lead to both air pollution and acid precipitation.

Several important initiatives have recently been undertaken to improve the NA's energy situation. Between 1992 and 1996, a comprehensive load survey was carried out by WAPDA and GTZ; this provided a detailed assessment of patterns of energy use as well as projections of future requirements. There are now 11 new hydro-electric power stations at different stages of construction in the Northern Areas; these are expected to provide an additional capacity of 14.6 MW. Twelve other stations are at the planning stage; if all of these schemes are constructed, they would represent an additional 630.3 MW of generation capacity.

A new and differentiated tariff system for electricity has recently been introduced, which establishes separate scales for domestic, commercial and industrial users. Other initiatives in the energy sector have included: the promotion of farm forestry by AKRSP and the Northern Areas Forest Department (NAFD); the introduction of fuel-efficient stoves by WWF and the Mountain Areas Conservancy Project (MACP); the development by BACIP of products to enhance the fuel and thermal efficiency of rural houses; and the promotion of solar energy by the Pakistan Council for Scientific and Industrial Research (PCSIR) and the Pakistan Council for Appropriate Technology (PCAT).

Strategic Priorities

The future development of the Northern Areas will be critically dependent upon the supply of adequate, affordable and reliable supplies of energy – particularly electricity. As an integral component of NASSD implementation, therefore, measures will be undertaken to:

Principal Actions

- n Develop and implement a comprehensive energy policy for the Northern Areas. Amongst other measures, the policy will encourage private sector investment in energy development, through the introduction of appropriate economic incentives;
- n Establish an independent power board for the region;
- n Promote institutional development and capacity building within NAPWD, by: increasing the number of qual-

- ified engineers; recruiting full-time environmental and socio-economic specialists; increasing operational and maintenance budgets; and assessing the possibility of creating an independent unit to handle electricity billing, as a means of reducing the unauthorised use of electricity and enhancing revenue collection;
- n Design and implement a comprehensive energy conservation programme;
- n Carefully expand the number of hydropower facilities in order to meet the shortfall in the demand for electricity. This expansion will be coupled by active measures to strengthen environmental and social safeguards in energy development, including environmental impact assessments of individual projects and a strategic environmental assessment of the energy sector as a whole.

Supporting Actions

- n Assess the feasibility of linking the Northern Areas to the national electricity grid;
- n Promote the use of other forms of renewable energy, including cultivated fuel wood, easy access to LPG and solar power.

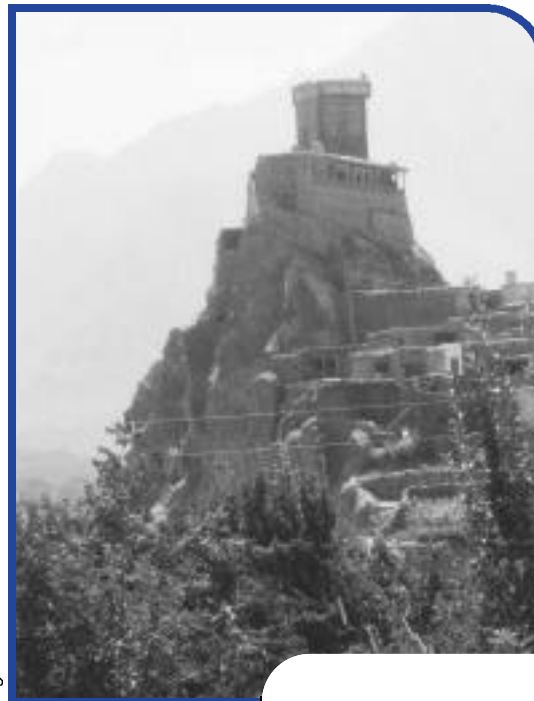
CULTURAL HERITAGE AND SUSTAINABLE TOURISM

Identifying the Issues

The Northern Areas are one of Pakistan's most important tourism destinations. The region is renowned for its natural beauty, and is endowed with rugged mountain landscapes, large glaciers, sweeping valleys and other features such as forests, rivers, lakes and meadows. This dramatic natural heritage is complemented by the Northern Areas' rich cultural heritage, including architectural sites such as palaces, forts and mosques, and archaeological sites such as ancient stone circles and Buddhist stupas. The Northern Areas also have a diverse variety of living cultural expressions, as reflected in the region's languages, traditional music, foods, festivals, sports, arts and handicrafts. The Shandur Polo Festival, in which polo teams from Gilgit compete with Chitral, attracts thousands of spectators each year.

Unfortunately, there are no official disaggregated tourism statistics for the Northern Areas alone. However, it has been estimated that approximately 20,000 foreign tourists visited the region in 1998; the numbers of domestic tourists are believed to be substantially higher. In the year 2000, some 236 international mountaineering and trekking expeditions visited the Northern Areas and NWFP, generating nearly US\$ 600,000 in royalties.

Despite the Northern Areas' rich mix of natural and cultural heritage, tourism development has been significantly constrained by a variety of factors. These include: the lack



Clight Colour Lab

Altit Fort, Hunza.

of clear, locally-derived policy guidelines; insufficient investment in tourism development; inadequate tourism infrastructure; insufficient human resource development; and the absence of an overall marketing strategy with coordinated product and image development.

The NA's sensitive geopolitical location and special administrative status also serve as a deterrent to tourism development. Photography of certain sites and features, for example, is restricted. All trekking and mountaineering expeditions are required to attend briefing and de-briefing sessions in Islamabad before and after their trips. Expeditions in restricted zones must be accompanied by a liaison officer, appointed by the Alpine Club of Pakistan and the government.

To date, tourism activities in the region have been heavily based upon the NA's outstanding landscape and dramatic mountain scenery; itineraries featuring the region's wildlife or the NA's unique cultural and archaeological heritage have been relatively less common. The situation is exacerbated by the fact that the dates of cultural events and festivals are often not fixed in advance; this makes it difficult to promote the events and to provide information to tourists.

Tourism in the Northern Areas is also associated with a considerable number of environmental impacts. Tourism development is largely unplanned, and there are no land-use or zoning schemes in place to guide or control activities. Large amounts of solid and human waste are left by expeditions along trekking routes and at base camps. The social impacts of tourism are also of concern.

Karim Jan



Polo, the Northern Areas are known for.

Much of the NA's architectural and archaeological heritage remains at risk. Only one site is currently protected under the Pakistan Antiquities Act, and several ancient sites have been damaged by vandalism. The preservation, restoration and management of architectural and archaeological sites also require specialist knowledge, trained personnel and funding on a scale that is currently beyond the Northern Areas' capacity to provide. An additional concern is that the NA's traditional arts, skills, customs and languages are gradually being lost as younger generations adopt new practices.

In an effort to create a more enabling environment for the growth of the tourism sector, the Northern Areas Tourism Development Board (NATDB) has prepared a draft tourism policy and facilitated the creation of District Tourism Committees. The conservation of architectural heritage has received considerable attention from the Aga Khan Cultural Services Pakistan (AKCSP); the restoration of the famous Baltit Fort has been particularly successful. Although there have been relatively few initiatives to date aimed at conserving the NA's archaeological heritage, the Baltistan Culture Foundation (BCF) has taken on a long-term lease for the management of the Manthal Buddha Rock, under the terms of an innovative agreement with the Department of Archaeology.

The launch of the Silk Route Festival has proven to be a particularly important and promising initiative for the conservation and promotion of the NA's living cultural expressions; the most recent festival was held in September 2000 and lasted for ten days. Other efforts to

promote living cultural expressions are being undertaken by: the Karakoram Handicraft Development Programme (KHDP), which now involves over 2,360 female artisans; the Hunza Arts and Cultural Forum (HACF), and BCF, which has been promoting the linguistic revival of Balti.

In response to the growing interest in ecotourism, the GCIC and the Adventure Foundation of Pakistan conducted a training programme on ecotourism in September 2000 for local guides. MACP is also promoting ecotourism within the NA's Nanga Parbat and Gojal Conservancies.

Strategic Priorities

In the absence of reliable and detailed data, it is difficult to draw conclusions about trends in the tourism sector in the Northern Areas. What is apparent, however, is the sizeable contribution that tourism could make to economic development. With the right strategies and under the right conditions, tourism to the Northern Areas has the potential to grow significantly, and to make a positive contribution to the sustainable development of the region. Under the auspices of the NASSD, active steps will be taken to:

Principal Actions

- n Create a more enabling environment for tourism development, by adopting a regional tourism policy, removing unnecessary restrictions and outdated rules, and ensuring safety of the tourists;
- n Attract a greater share of the domestic tourist market, which appears to be much more resilient than the international tourist market. (For example, in contrast

to the decline in international tourist numbers following the Kargil conflict and the events of 11 September, the numbers of domestic tourists visiting the Northern Areas have remained largely unaffected.);

- n Enhance the capacity of the Northern Areas Tourism Development Board;
- n Improve communication and transportation infrastructure by upgrading roads between key tourist attractions and installing modern navigational equipment at the NA's airports;
- n Develop and implement a comprehensive marketing strategy. This will include the creation of a website and the preparation of an annual tourism events calendar;
- n Diversify the tourism "product", by promoting activities such as wildlife viewing, low altitude trekking and cultural tourism;
- n Provide key architectural and archaeological sites with legal protection under the Pakistan Antiquities Act;

- n Make the "Silk Route Festival" an annual event;
- n Strengthen the data collection efforts of the Ministry of Tourism, in order to enhance tourism planning.

Supporting Actions

- n Nominate sites of global importance for inclusion on the UN's World Heritage List. Consideration will be given not only to the nomination of important architectural and archaeological sites, but also, to outstanding natural areas;
- n Establish a Tourism Training Institute within the Northern Areas, in order to enhance human resource development;
- n Encourage the conservation of traditional arts and skills by establishing "artisans' villages" and initiating new handicraft projects based on the successful KHDP model;
- n Create a new institution for the documentation and preservation of the local culture amid influx of tourists with diverse cultures.



Natural Resource Management



CHAPTER

06

The Northern Areas' mountain environment provides a wide range of biological and natural resources to support human livelihoods. These include arable land for cultivation; water for drinking and irrigation; rangelands for livestock; and forests for fuel wood, timber and medicinal plants.

These benefits, however, are only part of the picture. The NA's natural environment also provides a diverse variety of essential ecosystem services, including: pollination of food crops; watershed protection; the maintenance of hydrological regimes; the maintenance of soil fertility (e.g., through nutrient cycling); and the maintenance of waste sinks, which break down pollutants.

Over the last several decades, however, the NA's natural resources have come under increasing pressure, as a result of a complex range of factors. These include not only population growth and improved access, but also, market failure, policy and institutional weaknesses, ambiguous property rights, and social factors such as poverty and gender inequities. During the public consultation sessions organised as part of the NASSD process, the need to improve the availability and management of natural resources was frequently highlighted. Amongst other issues, local communities expressed particular concern about the lack of land for cultivation, seasonal shortages in irrigation water, insufficient access to safe drinking water, the scarcity of fuel wood, and the lack of livestock forage.

The future well-being of the Northern Areas will thus be critically dependent upon the development of sustainable natural resource management systems. In recognition of this fundamental dynamic, the improvement of natural resource management is a core objective of the NASSD. In the following sections, the principal issues and constraints confronting natural resource management in the Northern Areas are briefly analysed, and strategic priorities for future action identified. Six key thematic areas are addressed:

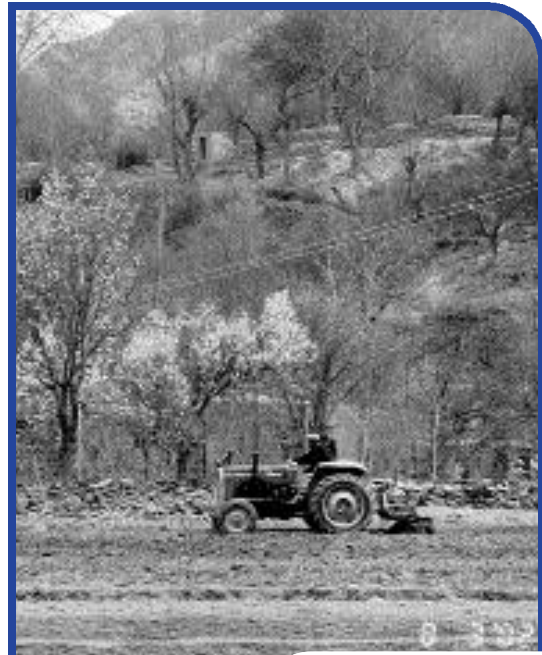
- n Agriculture and food security;
- n Rangelands and livestock;
- n Forests;
- n Biodiversity;
- n Water;
- n Mining and minerals.

AGRICULTURE AND FOOD SECURITY

Identifying the Issues

Approximately 80 per cent of the NA's population is engaged in subsistence agriculture. Cultivation is dominated by the production of cereal crops, fruits, vegetables and fodders. Wheat is important for meeting both the food requirements of the human population and the fodder requirements of the livestock population, and thus plays a pivotal role in the rural economy; in the rabi season, almost every farmer devotes a major part of his land (up to 70 per cent) to wheat. After wheat, maize is the second most important crop in the Northern Areas.

Fruits and nuts are widely grown throughout the region, including grapes, apples, cherries, apricots, peaches,



Hamid Sarfraz

Mechanised farming, a growing trend.

pears, plums, mulberries, almonds and walnuts. Most fruit is used for fresh home consumption. Surpluses are either dried (e.g., apricots) or simply wasted because of the poor road infrastructure that makes marketing difficult. Many different vegetables are also grown in the Northern Areas, including cabbages, cauliflowers, tomatoes, peas, beans, onions, turnips, capsicums, spinach, okra and potatoes.

Agricultural production is constrained by an array of factors, including: the lack of cultivable land; insufficient awareness about improved agricultural management practices; a lack of quality seeds; the high incidence of crop diseases and insect pests; poor storage and processing; weak marketing and poor access to markets; weak extension services; insufficient access to micro-credit; insufficient public sector investment; insufficient involvement of the private sector; and inappropriate research.

As a result of these constraints, agricultural output is no longer sufficient to meet subsistence requirements and the Northern Areas have become increasingly reliant on imported foodstuffs. In 2002, for example, some 70,000 metric tonnes of food were imported by the Food Department from other parts of the country, and sold at subsidised rates. During the public consultations organised by P&DD and IUCN, food security was raised as the highest priority issue in all but one of the NA's five districts.

AKRSP has made an extraordinary contribution to agricultural development in the Northern Areas. Key activities have included: the expansion of irrigation supplies; the promotion of improved forage and fodder production; the introduction of cash crops; the construction of physical

infrastructure; and the provision of micro-credit. Community mobilisation - in particular, the formation of Village Organisations and Women's Organisations - has been central to AKRSP's successful approach.

Several studies by the Department of Agriculture (DoA) and the National Agricultural Research Centre (NARC) have demonstrated that there is considerable potential for introducing improved varieties of maize and wheat in the Northern Areas. The results of NARC's 1998 trials, for example, showed that improved varieties of wheat performed better than local varieties at all locations, and often led to more than a 100 per cent increase in yields. The improved varieties were also shown to be disease resistant, and to produce an acceptable quantity of straw.

Strategic Priorities

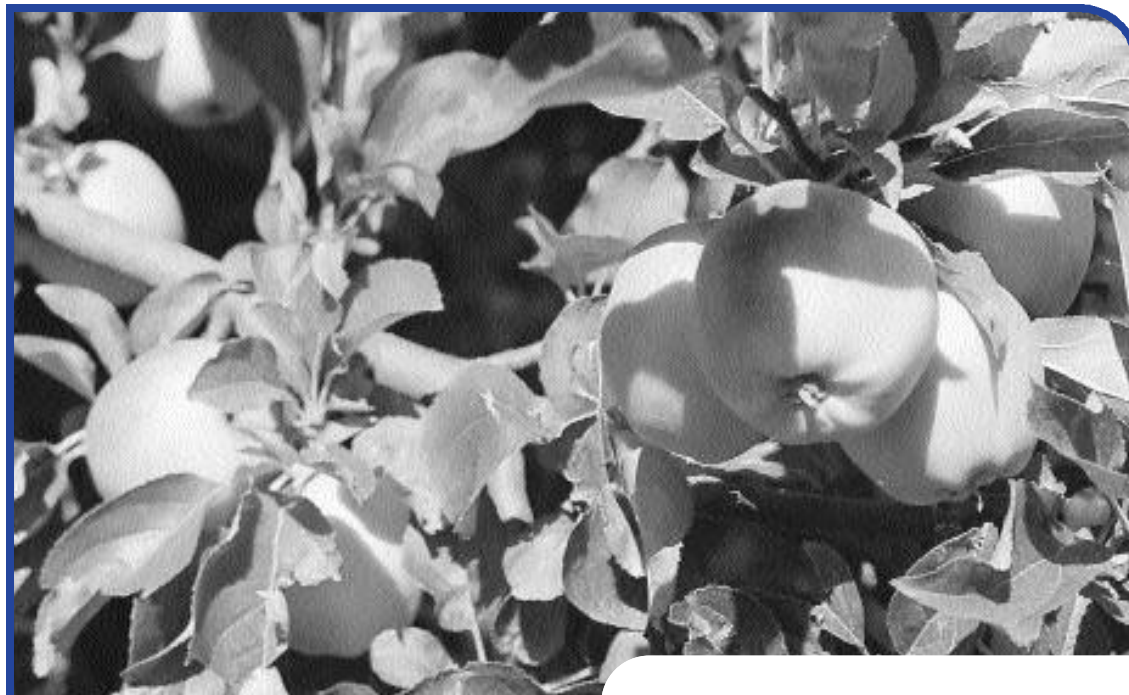
The debate about agricultural production has often been phrased as a stark choice between "green revolution" approaches - involving the exclusive use of high yielding varieties and high inputs of fertilisers, herbicides and pesticides - and "traditional", non-intensive agriculture. In the Northern Areas, however, there are now unique opportunities to learn from experiences around the world and to adopt a "middle way" which steers a course between these two extremes. Such an approach would recognise the need to increase yields and to employ carefully-selected improved varieties; however, it would also seek to use ecologically-sound levels of chemical inputs, conserve traditional cultivars, and promote practices such as integrated pest management, trickle irrigation and soil conservation.

The NASSD will seek to ensure that future agricultural development efforts in the Northern Areas are based upon this "middle way". The Strategy will also actively promote an integrated approach to agricultural development which goes beyond a narrow focus on increasing crop yields and addresses the broader concern of improving food security. Ultimately, the NASSD will aim to reduce the NA's dependence on external food supplies and enhance the region's self-sufficiency.

Within the framework of the Strategy, measures will be undertaken to:

Principal Actions

- n Strengthen the capacity of DoA, through the provision of additional funding, training and equipment;
- n Increase the production of food crops on existing irrigated land, by: improving farming practices (e.g., seed bed preparation and disease control); increasing the use of improved crop varieties; and enhancing the production of quality seeds;
- n Expand the area under irrigation. Every district in the Northern Areas has cultivable land that could be brought under production if water supplies could be assured;
- n Reduce wastage by investing in basic storage infrastructure and promoting simple preservation techniques such as pickling and drying;
- n Enhance livestock and fodder production, as an integral component of the NA's agricultural systems.
- n Expand poultry and fisheries production;
- n Increase the availability of micro-credit;



Syed Sajjad Imran

Though reducing, still have lot of export potential.

- n Strengthen extension services to ensure that the extension needs of individual communities are met. An organisational review of the DoA's extension structures will be carried out, and the feasibility of creating a network of Community Extension Workers at the local level assessed.

Supporting Actions

- n Enhance income generation from existing activities, for example, by expanding the production and sale of vegetables and vegetable seed;
- n Explore the potential for other income generating activities, such as handicrafts, honey production, the sale of cut flowers, ecotourism, trophy hunting and the processing of wild sea buckthorn (*Hippophae rhamnoides*) berries;
- n Investigate the potential for new crops (e.g., sorghum, as an alternative to maize);
- n Strengthen agricultural research, in areas such as: farming systems; plant protection; fertiliser application; maize and wheat production; fodder production; vegetable production; fruit production; and agrobiodiversity. High priority will be accorded to improving linkages among researchers, farmers and extension workers. A particular effort will also be made to ensure that farmers are involved at an early stage in the development and testing of new varieties and technologies. The expertise of KARINA may also be tapped in this regard;
- n Initiate in-situ and ex-situ programmes to conserve the NA's traditional livestock breeds and crop and fruit varieties;
- n Improve the NA's physical infrastructure, in order to enhance the rapid transportation of fruits and vegetables (both within the region and down-country) and to minimise wastage;
- n Explore the potential for cooperative farming involving CBOs.

RANGELANDS AND LIVESTOCK

Identifying the Issues

Rangelands occupy over 22 per cent of the Northern Areas. They provide critical grazing areas for the NA's livestock; protect water catchments; and support a rich diversity of flora and fauna. Livestock are central to the local agricultural economy and play a vital role in the region's food security. They produce milk and meat for consumption and sale; account for more than 40 per cent of household farm incomes; provide dung for use as fertiliser; and supply traction for agricultural operations. Improved livestock production and sound rangeland management will thus be key components of the NA's quest for sustainable development.

The livestock census of 1996 estimated that there are over two million head of livestock in the Northern Areas. Cattle, goats and sheep are predominant, but there are also significant numbers of buffaloes, donkeys, yaks and horses, as well as small numbers of camels and mules. Most of the NA's households (80-90 per cent) practise a transhumant system of animal husbandry. In this system, farmers maintain their principal home at lower altitudes, where they live for approximately seven months of the year. During the winter, livestock are kept indoors and fed on a diet of stover, straw and hay. In the summer, the animals are taken up into the mountains to graze.

The shortage of quality fodder is the principal constraint to livestock production in the Northern Areas; the situation is particularly acute during the late winter and early spring, when crop residues from the previous season have been largely exhausted. A significant proportion of the NA's livestock suffers from deficiencies in dietary protein, energy, trace elements and vitamins.

The lack of quality fodder leads to under-nourishment, which, in turn, is a major factor contributing to low milk, meat and wool production. Under-nourishment also contributes to reduced disease resistance. Rinderpest, foot and mouth disease, and rabies are common viral diseases. Bacterial diseases include haemorrhagic septicaemia, blackquarter and anthrax. Pleuropneumonia, goat and sheep pox, and enterotoxaemia occur in small ruminants on an almost annual basis. The incidence of liver flukes and intestinal worms is reported to be very high. However, the provision of veterinary services is constrained by a variety of factors, including: insufficient staff, equipment, drugs and transportation; the seasonal movement of livestock; and the rugged and inaccessible mountain environment.

Effective rangeland management and livestock production in the Northern Areas are also constrained by an acute lack of information. A comprehensive survey of the NA's rangelands, for example, has never been undertaken. Similarly, there is little information on wildlife-livestock interactions; the epidemiology of livestock disease; or the extent, severity or causes of rangeland degradation. However, there is some evidence to suggest that the productivity and floral diversity of the NA's alpine pastures are decreasing. There is also some evidence to suggest that the growth in livestock numbers has led to increased competition between wildlife and domestic ungulates for range biomass, and to a decline in wildlife populations.

Several previous and ongoing initiatives have sought to address these constraints, including the Livestock, Poultry and Fodder Improvement Project and NADP. Other important initiatives in the livestock sector have included the preparation of village pasture development plans under MACP and the launch of an innovative para-veterinarian training programme by AKRSP.



Local breed of buffaloes.

Strategic Priorities

It is crucial to the sustainable development of the Northern Areas that efforts to enhance livestock production and improve rangeland management be intensified. In the short to medium-term, the NASSD's core objective for the livestock sector will be to improve productivity by enhancing the management of existing livestock-range systems and expanding the production of cultivated fodders. Under the auspices of the Strategy, measures will be initiated to:

Principal Actions

- n Enhance both the quantity and the nutritional quality of fodder produced on irrigated lands (for example, by inter-cropping);
- n Establish fodder breeding and improvement programmes;
- n Promote the use of supplementary livestock feed;
- n Enhance the capacity of the NA's veterinary services;
- n Develop community-level, livestock organisations, based on the successful Village Organisation concept introduced by AKRSP;
- n Introduce rotational grazing schemes;
- n Explore mechanisms to reduce livestock grazing pressure on the NA's rangelands (for example, grazing fees);
- n Investigate the extent, severity and causes of erosion and rangeland degradation. Rehabilitation programmes should be initiated for priority degraded areas;
- n Build the range management capacity of NAFD;
- n Enhance coordination between the range management activities of the Forest and Agriculture Departments.

Supporting Actions

- n Explore the potential for introducing improved breeds of both small and large ruminants, in order to meet the increasing demand for milk and meat;
- n Establish a livestock research facility within the Karakoram Agriculture Research Institute for the Northern Areas (KARINA).

FORESTS

Identifying the Issues

The NA's natural forests are amongst the most important forests in Pakistan. They play a vital role in protecting the watershed of the Indus River; support a rich diversity of flora and fauna; serve as an important source of forage and pasture for the NA's livestock population; contribute to the national supply of softwood; provide critical supplies of timber and firewood to local communities; supply an important array of non-timber forest products (NTFPs), including medicinal plants, spices, honey and mushrooms; and have tremendous potential for recreation and the development of ecotourism. The management of the NA's forests is thus of local, national and international concern.

The natural forests of the Northern Areas are limited to the south-western portion of the region. They occur primarily in Diamir District, the southern parts of Gilgit District, the Punial area of Ghizar District and a few pockets of Baltistan District. The statistics regarding forest cover vary greatly. Legally-designated forests cover some 281,600 ha, an area equivalent to nearly four per cent of

the Northern Areas. In addition to these designated areas, the Forestry Sector Master Plan estimates that there are some 381,200 ha of scrub forests in the Northern Areas; if these areas are included, then the estimate of total forest cover rises to over nine per cent.

The Northern Areas' natural forests fall under two broad legal classifications. "Protected forests" are state-owned forests, designated under the Pakistan Forest Act (1927). Although none of the NA's protected forests has been commercially exploited, virtually all have been significantly degraded. "Private forests" are owned by local communities, under the terms of the Gilgit Private Forests Regulation of 1970 and the subsequent Rules framed in 1975. The NA's private forests cover an area of approximately 217,088 ha. They are owned by the tribal communities of Chilas, Darel and Tangir, but managed by the Northern Areas Forest Department, which is responsible for overseeing commercial timber extraction and timber sales.

The NA's forests are confronted by a wide variety of threats and pressures. Direct causes of forest degradation and loss include excessive exploitation of forest resources for commercial and subsistence purposes, encroachment and fire. Indirect causes include such factors as population growth, inequity, poverty and insecure land tenure. Both direct and indirect causes are exacerbated by poor forest management and planning, including the lack of an enabling environment (policy and law) for sustainable forestry, insufficient institutional capacities and the lack of community involvement in forest management.

In recognition of the growing demand for forest produce, farm forestry has been accorded high priority by AKRSP since its inception in 1982. AKRSP estimates that over 45 million fuel wood trees have been planted over the last 20 years. NAFD has also been involved in farm forestry activities in all five districts, including the establishment of tree plantations, the provision of training to local farmers and the construction of roads and water channels.

In a particularly important development, a new Draft Working Plan (2002-2013) for the private forests of Diamir District has recently been approved by MoKANA. A regeneration plan developed by the Forest Department for the NA's private forests has also been approved by the Federal Cabinet. Other initiatives in the forest sector have included: the design of a pilot project to test the concept of community-based forest management; the development of products to enhance the fuel and thermal efficiency of rural homes by BACIP; and the organisation of a comprehensive policy and legal review by MACP.

Strategic Priorities

Securing a sustainable future for the forests of the Northern Areas will require action on many different fronts, and at many different levels. The principal objec-

tives at this point in time will be to conserve all remaining natural forest areas, and to initiate a process of rehabilitation at priority sites. Within the framework of the NASSD, active measures will be taken to:

Principal Actions

- n Develop an enabling framework that effectively supports sustainable forest management and community participation. Key steps will include: the finalisation, approval and implementation of the NA forest policy; the review and revision of the legal and regulatory framework; and the development of economic incentives to encourage conservation, sustainable forest management and farm forestry;
- n Promote community involvement in the management of both private and protected forests. Particular emphasis will be accorded to the establishment of joint forest management systems which formally involve both government and local communities;
- n Develop individual management plans for all private and protected forests;
- n Promote farm forestry;
- n Promote institutional development, capacity building and appropriate investment within the forest sector;
- n Enhance forest monitoring and assessment. If the use of remote sensing techniques remains constrained for security reasons, then greater emphasis will be placed on traditional, field-based, assessment methodologies.



Syed Sajjad Imran

A common trend, resulting in denuded forests.

Supporting Actions

- n Strengthen forestry education, by enhancing the role of the Pakistan Forestry Institute (PFI) in providing in-service training and promoting a greater role for KARI-NA in forestry research;
- n Promote more efficient use of forest produce, for example, by encouraging the expansion of the successful work of BACIP and other organisations.

BIODIVERSITY

Identifying the Issues

The biodiversity of the Northern Areas is believed to include some 230 species of birds, 54 species of mammals, 20 species of freshwater fish, 23 species of reptiles and six species of amphibians. The region's floral diversity has not yet been assessed, but the Northern Areas are believed to support some of the richest plant communities in Pakistan, including many different species of medicinal plants. The region also supports a wealth of agrobiodiversity, including traditional cultivars of grain crops, many different varieties of fruit and a wide range of traditional livestock breeds.

Virtually the entire human population of the Northern Areas depends directly or indirectly upon biological resources to meet daily requirements. Vegetables, fruits, nuts, honey, spices, construction timber, fuel wood and medicinal plants all come from natural ecosystems. The Northern Areas are also home to a considerable number of globally threatened species, including the snow leopard, Himalayan lynx, Marco Polo sheep, blue sheep, Ladakh urial, markhor, musk deer, woolly flying squirrel and seven species of birds. The NA's biodiversity is thus of local, national and international importance.

To conserve this rich biological heritage, an extensive network of protected areas (PAs) has been established in the Northern Areas, including four national parks, three wildlife sanctuaries and nine game reserves; in total, these protected areas cover an area of some 2.07 million hectares, or approximately 28 per cent of the region. In addition, eight controlled hunting areas, covering 518,200 hectares of mountain landscape, have been established.

Despite these efforts, however, the NA's biodiversity is confronted by a wide array of threats and pressures. Indiscriminate hunting is believed to be the principal cause of the population declines that have been observed in many of the region's birds and mammals. Mountain ungulates such as markhor, for example, have been subjected to particularly heavy hunting pressure for trophies, skins and meat. The impact of hunting has increased with the spread of modern firearms and the improved access that has come with the construction of roads deep into formerly remote areas.



IUCN Pakistan

Snow leopard, an endangered specie.

The NA's medicinal plant populations have also been over-exploited as the demand for plant-based drugs and products has increased. Extraction by contractors and local traders is now occurring on a large-scale, and several valuable medicinal plant species are at risk. The populations of kuth (*Saussuria lappa*) and karru (*Picrorhiza kurroa*), for example, have been severely depleted through over-harvesting.

In addition to over-hunting and over-exploitation, habitat destruction and fragmentation are believed to be important direct causes of biodiversity loss in the Northern Areas. Activities of particular concern include logging, firewood collection, land development, the construction of roads and settlements, and livestock grazing.

Agricultural intensification is another factor contributing to the loss of biodiversity in the Northern Areas. Several different trends are associated with agricultural intensification, including: the introduction of high yielding varieties (which are replacing traditional grains and fruits); the increased use of chemical pesticides (which are believed to be responsible for declines in several bird species); and the introduction of new livestock breeds (which are replacing traditional breeds).

The government departments responsible for biodiversity conservation and management are constrained by insufficient funding, a lack of trained staff and a dearth of appropriate equipment. Two of the NA's national parks are currently unmanaged. Similarly, regulatory systems to control access to the NA's wildlife sanctuaries and game reserves either do not exist or are dysfunctional. As a

result of these conditions, virtually all the protected areas in the region are subject to human use of some kind. An additional concern is that the policy and legal framework for protected areas is outdated, and does not adequately reflect the concept of biodiversity nor allow sufficient scope for the adoption of participatory management approaches involving local communities.

There are few economic or other incentives to encourage the sustainable use of biodiversity in the Northern Areas. For example, the lack of incentives for farmers to conserve local crop varieties and native livestock breeds is one of the factors underlying the loss of the NA's agrobiodiversity. Similarly, the ownership of most wild natural resources in the Northern Areas remains vested in the state. As a result, local communities have few incentives to invest in their long-term, sustainable use.

Another obstacle to conservation in the Northern Areas is the lack of biodiversity information. At present, there is no regional institution responsible for the preparation of biodiversity inventories, nor is there a system in place to monitor trends in species populations or habitat status. Although a few localities have been the focus of detailed studies (e.g., Deosai National Park), the plant and animal communities of the Northern Areas' wider landscape remain largely undescribed.

Over the last decade, several important and innovative conservation initiatives have been undertaken which diverge significantly from the traditional "policing" approach to natural resource management. Organisations such as AKRSP, IUCN, WWF and the Himalayan Wildlife

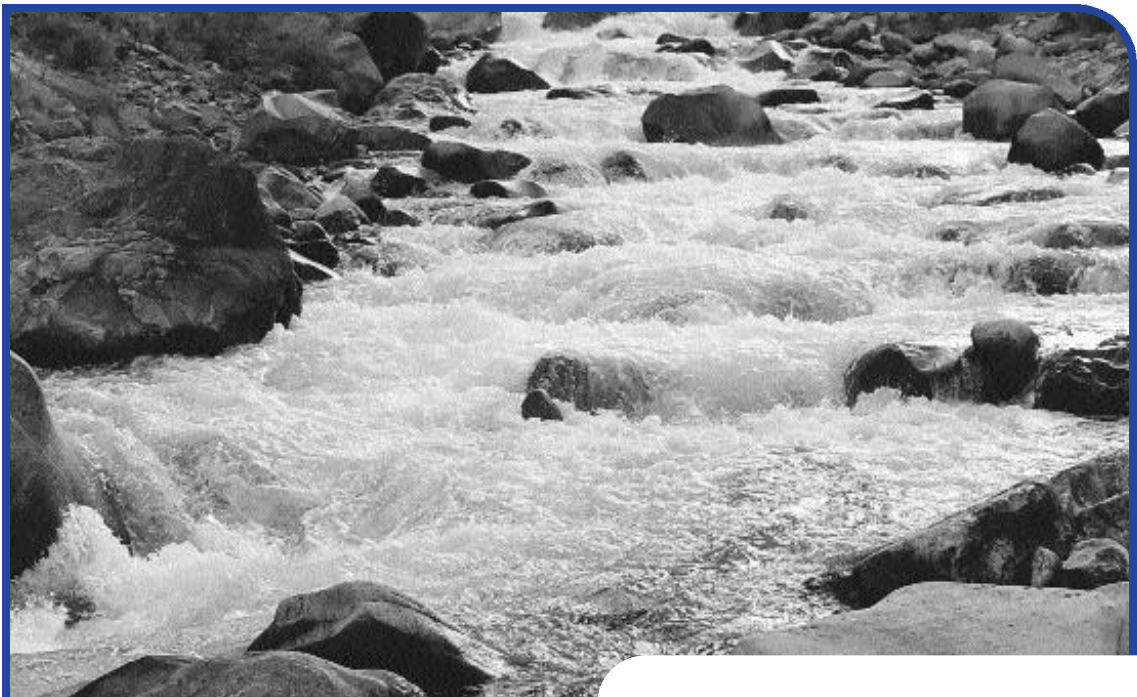
Foundation (HWF) have actively promoted the adoption of more participatory approaches to conservation. Many local NGOs and CBOs have also been active in conserving the wildlife, fisheries and forest resources of the region.

Strategic Priorities

The conservation and sustainable use of biodiversity will be integral to successful NASSD implementation. Under the auspices of the Strategy, specific measures will be undertaken to:

Principal Actions

- n Document and build upon the lessons emerging from the pioneering experiences of AKRSP, IUCN, WWF, HWF and others;
- n Establish a policy and legal framework which enables the adoption of collaborative management regimes and the devolution of resource management authority to local communities. As a first step, an in-depth review of existing sectoral policies and laws will be carried out, in order to identify areas where new legislation may be needed;
- n Promote in-situ conservation, by: strengthening the management of the existing protected area system; creating new PAs where appropriate (e.g., to protect ecological zones that are currently unrepresented in the PA network); and initiating community-based conservation and sustainable use programmes outside protected areas. The possibility of establishing "inter-



Syed Sajjad Imran

A great resource, highly underutilised.

- national peace parks” along the border with China and along the Line of Control with India (e.g., the Siachen Glacier) will be explored;
- n Build the biodiversity management capacity of line agencies, local NGOs and community-based organisations;
 - n Establish/strengthen ex-situ conservation programmes within government agencies such as KARINA and the NA Department of Agriculture. Particular attention will be accorded to the conservation of the NA's agrobiodiversity;
 - n Introduce economic and other incentives in order to encourage conservation and sustainable use;
 - n Establish new and innovative funding mechanisms for biodiversity, such as Valley Conservation Funds and regional trust funds;
 - n Enhance baseline information on the NA's biodiversity, by conducting biodiversity assessments and inventories and strengthening the biodiversity database at GCIC.

Supporting Actions

- n Launch a special programme to collect and archive indigenous knowledge pertaining to biodiversity;
- n Integrate biodiversity themes into teacher training programmes;
- n Develop and implement a comprehensive public awareness programme on the importance and benefits of biodiversity.

WATER

Identifying the Issues

During the public consultation meetings organised by P&DD and IUCN, the need to improve the development and management of water resources emerged as a high priority. Concerns were expressed about seasonal shortages in irrigation water, the need to bring new land under irrigation in order to keep pace with population growth, the lack of access to safe drinking water and sanitation, growing inter-sectoral competition for water supplies, and the destruction of important wetland sites.

Glaciers and snow deposits are the principal sources of water in the Northern Areas. The water from melted snow and ice enters streams, which subsequently feed man-made channels known as kuhls. Many of the streams and rivers in the Northern Areas feed into the tributaries of the upper Indus River. In total, the Northern Areas contribute some 50.5 billion m³ - or 72 per cent - of the mean annual flow of the Indus River, as measured upstream of Tarbela. The conservation, management and development of water resources in the Northern Areas thus have implications for the entire Indus basin and Pakistan as a whole, and are issues of vital national importance.

Irrigation is the single largest “consumer” of water in the Northern Areas. In 1990, for example, nearly 97 per cent of the total cultivated area was under irrigation, highlighting the critical role of irrigation in the region's food security. Successful irrigation channel construction in NA involves a combination of local wisdom and contemporary engineering technology. One system of knowledge by itself cannot guarantee success; the failure to utilise both sources of knowledge has frequently led to the construction of poorly performing infrastructure.

Water resource management and development face a considerable number of constraints and challenges in the Northern Areas. Current water availability is unreliable because of the large variations in stream flow; this dependence on stream flows leads to seasonal water shortages, and means that irrigation systems cannot be operated on a demand basis. This situation is exacerbated by the fact that large quantities of water are lost in transit; in extreme cases, these losses may be as high as 70 per cent.

Frequent landslides and the heavy sediment load mean that the kuhl system must be maintained much more frequently than similar systems in other areas. Many of the relatively large kuhls, which were expected to provide a long-term and reliable source of water for irrigation, have fallen into disrepair, making their effective operation increasingly difficult.

The use of water for irrigation is often inefficient and wasteful. For example, many farmers apply irrigation water at infrequent intervals and in large doses. As a result, more water is used than is necessary and valuable nutrients are flushed from the root zone. At the institutional level, there has been a relatively slow recognition of the need to move towards a demand-driven water system.

Water development and management in the Northern Areas are also made particularly difficult by the general absence of information. There is, for example, very little information on the availability or use of water in the region, including data on the total command area, the area under irrigation, the extent of water losses within the kuhl system, pollution levels or silt loads. Similarly, there is very little information about snowfall or glaciers - despite the fact that these are principal sources of water in the region.

In an effort to address the NA's water requirements, NAPWD has constructed over 158 kilometres of new water channels and completed some 78 drinking water development projects, with a total capacity of nearly 14 million litres. Major water supply schemes are currently nearing completion in the urban centres of Gilgit and Skardu, and a further nine water supply projects with a total capacity of over two million litres are under development in other parts of the Northern Areas. NGOs have also been very active in the water sector, including AKRSP and WASEP.

Box 7**Water Master Plan for the Northern Areas**

In order to guide development within the water sector over the next 25 years, a comprehensive Water Master Plan will be developed under the auspices of the Water and Watershed Management Authority, incorporating the following elements:

- n A detailed assessment of current and projected water requirements (agricultural, domestic and ecological);
- n An in-depth review of the adequacy and quality of current water supplies;
- n A detailed set of recommendations for enhancing the management of existing water systems, including a description of prioritised projects, proposed implementation arrangements and budgets. An action plan for the rehabilitation of abandoned kuhls will also be included;
- n A detailed set of recommendations for developing new water systems, including a description of prioritised projects. The plan will identify specific sites where new water development projects seem to be particularly feasible, from an economic, technical, social and ecological perspective;
- n A Strategic Environmental Assessment, which identifies the likely cumulative impacts of the proposed water development and management programme and the steps that should be taken to avoid or mitigate negative effects;
- n A comprehensive set of recommendations on the establishment of new institutional arrangements in the water sector;
- n Recommendations on an effective and transparent framework for decision making within the water sector. The recommendations will include guidelines on stakeholder participation, the processes to be used to resolve inter- and intra-sectoral conflicts, and the procedures for carrying out environmental impact assessments of individual projects;
- n A framework for monitoring, evaluating and reporting on the performance of water systems.

Strategic Priorities

The management of water resources will need to be significantly enhanced and new water development schemes initiated, if the NA's future water requirements are to be fulfilled. However, since the construction of new water channels and irrigation schemes is capital intensive and time consuming, the NASSD's core objective for the water sector over the next decade will be to improve the maintenance and management of existing systems. The development of new schemes will be accorded relatively lower priority, and seen primarily as a long-term option.

Under the auspices of the Strategy, measures will be undertaken to:

Principal Actions

- n Create a new institutional framework for water management and development, by: establishing an autonomous Water and Watershed Management Authority (WWMA); creating federations of Water Users' Organisations (WUOs) at the tehsil level; and forming Area Water Boards at the district level;
- n Prepare a Water Master Plan, aimed at addressing the multiple water needs and objectives of the agricultural, domestic and environmental sectors over the next 25 years (see Box 7);
- n Promote increased participation of water users in the design, development, operation, maintenance and financing of irrigation and domestic water supply systems. Particular emphasis will be accorded to the development of mechanisms which help to combine both traditional and modern knowledge systems relat-

ing to water management and development;

- n Enhance the operational management of the kuhl system, for example, by building the capacity of WUOs;
- n Enhance the productivity of water use, by altering field layout in order to improve irrigation efficiency, and by introducing high efficiency irrigation systems such as drip irrigation;
- n Minimise water losses by ensuring that repairs to irrigation channels are undertaken promptly;
- n Increase storage capacity through the construction of small-scale storage tanks;
- n Enhance the collection of meteorological data, particularly in relation to snowfall and glacier dynamics.

Supporting Actions

- n Strengthen water-related research and monitoring. Particular attention will be accorded to strengthening information collection on water availability and losses, for example, by installing weirs and water gauges along selected kuhls;
- n Develop new surface water resources;
- n Assess the feasibility of adjusting cropping patterns in line with water availability. The potential for using drought resistant varieties of wheat will also be explored;
- n Assess the potential for developing water lifting schemes, to help meet the peak demand from March to May;
- n Enhance the conservation of the NA's unique, cold water, wetland sites, for example, by strengthening ecological monitoring, developing new management plans, and creating new protected areas at priority sites;

- n Investigate the potential for glacier “seeding” or “planting”, as a means of increasing water supplies.

MINING AND MINERALS

Identifying the Issues

The Northern Areas are a mineral-rich region. To date, some 18 types of commercially valuable minerals and ten types of gemstones have been identified from NA. Despite this potential, however, the mining sector has a relatively poor asset holding and profit earning ratio. Of the total assets held by the sector, 87 per cent are in the areas of extraction and mining, while only 13 per cent are associated with value addition.

Gold extraction from the Indus River continues on much the same basis as it did centuries ago. Some 300 families are believed to be involved in gold washing; they sell approximately 50 kilograms of gold on the market monthly. The Gold Placer Project, started in 1999 by the Pakistan Mineral Development Corporation with the technical assistance of Australia, has also discovered deposits of alluvial gold in the region. The Gemstone Corporation of Pakistan is the only major company involved in gemstone mining in the Northern Areas; it currently mines rubies and several other precious and semi-precious stones.

Constraints facing the sector include insufficient human, technical and financial resources, high risks and large investment costs. Mining activities are largely unregulated; as a consequence, there have been a wide range of environ-

mental impacts associated with the mining sector, including localised air pollution, landslides, water contamination, habitat destruction and wildlife disturbance. The health and safety of the mining workforce are also of concern.

Strategic Priorities

A carefully planned and regulated mining sector could make an important contribution to the development of the Northern Areas. Within the framework of the NASSD, measures will be initiated to:

Principal Actions

- n Develop an effective regulatory and legal framework, aimed at preventing and mitigating environmental impacts, and improving the health and safety of those involved in mining activities;
- n Strengthen human, technical and financial resources. Particular emphasis will be placed on enhancing the sector's profit ratio by encouraging the development of activities which will bring greater value addition. For example, rather than sending gemstones down-country to be cut and polished, efforts will be made to develop the necessary capacity to undertake these activities within the Northern Areas.

Supporting Actions

- n Investigate the potential for establishing a “Gem Mining and Cutting Institute”, to help build the capacity of the sector and to promote the industry at the local, national and international levels.



Implementation Mechanisms



C H A P T E R

07

PLANNING AND DEVELOPMENT DEPARTMENT (STRENGTHEN THE DEPARTMENT)

Under the auspices of the NASSD, the Northern Areas Administration will seek to enhance its capacity to formulate appropriate sustainable development policies. This capacity will be housed not only within the various sectoral agencies, but also - and most crucially - within those departments which have cross-sectoral responsibilities, notably P&DD and the Department of Finance (DoF).

At present, these two departments function in a relatively compartmentalised fashion, leading to a number of weaknesses. In particular, the identification of objectives, targets and activities by P&DD is not linked to the availability, mobilisation or allocation of financial resources. This leads to a “disconnect” between the two departments and a loss of synergy. Therefore, substantive linkages and exchange of information are required between these two departments so that meaningful policy can be developed with effective implementation. An overarching coordinated functioning will need to evolve in accordance with the modern practice of conceiving planning with the medium term budgetary framework of the government. The two departments therefore will for sustainable development need to converge functionally.

The Planning and Development Department (P&DD) will provide the necessary leadership to the region’s various sectoral programmes. Changes in organisational structures as well as staffing will be required; these will be implemented in a sympathetic and carefully planned manner, in order to minimise impacts on existing staff and maximise the potential for “win-win” solutions. Wherever possible, existing staff capabilities will be augmented through additional training and support.

Particular attention will be paid to enhancing the policy formulation capacity of the department. To this end, an intensive capacity building effort will be initiated. Data systems will also be created or updated, so that they are capable of providing adequate, timely and accurate information which can subsequently be used to carry out sectoral and policy reviews.

STATISTICAL UNIT

A Statistical Unit will be created within P&DD, with a mandate to collect, organise, analyse and present data for use by both the government and the public.

To undertake these activities effectively, the Statistical Unit will be staffed by professionals with appropriate qualifications. Not all staff will be given the status of permanent civil servants; rather, the Statistical Unit will be given the authority to employ qualified professionals as the need arises, on the basis of short-term contracts. Such a mechanism will help to ensure that the Unit retains the flexibility to recruit its staff in direct response to emerging needs and changing programme requirements. However, a core team of permanent qualified staff will also be essential, in order to provide long-term continuity and direction.

Over the last several decades, the Northern Areas have tended to be neglected by the national data collection efforts that have been undertaken in other parts of Pakistan. In order to address this information gap, the Statistical Unit will not be able to rely on secondary data sources alone; it



Serendip

Infrastructure development, a long way to go.

will also need to facilitate the generation of primary data, in a selected number of priority areas and themes.

It is envisaged that one of the key functions of the Statistical Unit will be to provide high quality inputs to the NAA’s policy formulation process. Through its data gathering and analysis efforts, the Unit will seek to ensure that decision makers, stakeholders and citizens are kept informed of the status of key environment and development issues, as well as the impacts of government programmes. These processes will help to foster an informed debate about the NA’s policy options.

REPORTING OBLIGATIONS

Mechanisms to enhance both institutional and political accountability will be put into place. Institutional accountability will be pursued as an integral component of institutional reform, and will include the operationalisation of instruments such as the Efficiency and Discipline Rules. The concurrent creation of public reporting obligations will help to ensure transparency as well as administrative efficiency.

A number of measures will be undertaken to ensure that information becomes more widely available to the NA’s citizens; this will include not only information on governmental processes and decisions, but also, information on the rights and obligations of stakeholders. A particular effort will be made to ensure that information is made available regarding potentially contentious issues, such as the granting of planning permits for the construc-

tion of new infrastructure, the award of contracts and the results of environmental impact assessments.

As a first step, measures will be initiated to lift the legal constraints which currently prevent the public from accessing information. Measures will also be introduced to ensure that government information is proactively shared with the NA's citizens, in simple and readily understandable formats. For example, government agencies will be required to produce annual reports on their programmes and activities, using a prescribed format. The reports will be widely circulated for review by stakeholders and the NALC. It is envisioned that sector-specific committees within NALC will be responsible for reviewing the performance of the corresponding agencies and releasing their assessments to the public; in this way, the cycle of political accountability will begin to function.

To help ensure their effectiveness, these steps will be supported by a specially-designed programme, aimed at building the capacity of civil society to access, understand and use information to monitor progress towards sustainable development. This will help to ensure that citizens are able to capitalise upon the opportunities provided by the NASSD's institutional and political reforms.

STEERING MECHANISMS

A Northern Areas Roundtable on Sustainable Development will be established, under the chairmanship of the Deputy Chief Executive of the Northern Areas and with representatives from both government and civil society. The Roundtable will be responsible for overseeing and guiding NASSD implementation, monitoring progress and providing strategic advice as required.

Additional oversight will be provided by the Northern Areas Legislative Council. The involvement of the Council will provide the NASSD with political legitimacy, and will also help to ensure that governmental decision-making takes place in accordance with NASSD principles and objectives.

The Planning and Development Department will provide the hub for the day-to-day implementation of the Strategy within the Northern Areas Administration. To this end, a special NASSD Coordination Unit will be created within the P&D Department. The Unit will house the necessary expertise to lead the various sectoral initiatives in accordance with agreed policy goals; additional technical support will be sought from the private sector, NGOs and academic institutions, as required. In order to steer the development initiatives of the various departments and sections in accordance with the NASSD, the P&D Department will develop an overall implementation framework as well as a set of monitoring mechanisms. (These are described in more detail in Chapter 9.)



IUCN Pakistan

Participatory planning, a principle must be followed.

Each line department will continue to remain responsible for the formulation and implementation of its sectoral policies. There will, however, be a need to enhance the departments' planning capacities. It is envisioned that the individual planning units within the various sectoral departments will be linked and supported through the NASSD Coordination Unit in the P&D Department; this will help to ensure that existing capacities are strengthened. The arrangement will be designed with sufficient flexibility to enable the recruitment of short and medium-term expertise from civil society, including NGOs, the private sector and academia.

POLICY CONSULTATIVE GROUPS

In order to address the participation gap which currently exists in the NA's development processes, it is envisioned that the Northern Areas Roundtable on Sustainable Development will give consideration to the creation of a number of Policy Consultative Groups (PCGs), on a needs basis. The PCGs would have a mandate to review and provide advice on sectoral development programmes and activities. The groups would be multi-stakeholder bodies, composed of representatives from government, academia, NGOs, the private sector and other interest groups. In order to ensure the effective participation of civil society members, specially-designed capacity building programmes might be required for some group members.

The Policy Consultative Groups would support the pursuit of sustainable development in the Northern Areas

IUCN Pakistan



Gender integration, not limited to mere participation.

in a number of important ways. Amongst other benefits, they could be expected to:

- n *Provide a recognisable forum in which to undertake policy discussions.* In this regard, they would provide civil society, in particular, with an immediate and tangible connection to governmental processes;
- n *Create alliances between government departments and non-governmental actors,* interest groups and experts. By bringing these many different stakeholders into a common forum, the Consultative Groups would help to build trust, identify shared objectives and create new partnerships;
- n *Encourage policy innovation.* By their very nature, the Consultative Groups would serve to promote discussion, debate and assessment of policy options. In other parts of the world, this type of multi-stakeholder policy deliberation has played an important role in fostering new ideas and approaches, leading to policy innovation;
- n *Enhance policy "ownership" and reduce conflict.* Policy making which occurs behind closed doors, without debate or stakeholder interaction, often leads to a lack of ownership, considerable conflict and ineffective implementation. The Policy Consultative Groups would create a forum in which multi-stakeholder debate and genuine evaluation of policy options could occur; ideally, decisions would only be taken once consensus or an acceptable level of agreement had been achieved, thereby creating a supportive milieu for policy implementation;
- n *Promote the participation of marginalised stakeholders.* The Consultative Groups would provide an important opportunity for those members of society who tend to be neglected by governance processes to contribute directly to policy formulation. In this regard, the membership of the Policy Consultative Groups would need to be carefully and deliberately structured by the Roundtable, so as to include representatives of marginalised stakeholder groups;
- n *Ensure that policy decisions are given greater legitimacy.* It is envisioned that the Policy Consultative Groups would include institutional members, i.e., recognised civil society organisations would be mandated to nominate representatives to participate in the PCGs. This would lend considerable credibility to the process and help to ensure the legitimacy of policy choices;
- n *Ensure that policy decisions are sensitive to the NA's cultural and social norms.* Through the involvement of a broad cross-section of society, the Policy Consultative Groups would serve to institutionalise the Northern Areas' social and cultural norms. This, in turn, would help to ensure that policy decisions are culturally and socially appropriate.

The Policy Consultative Groups would require a clear mandate in order to be effective. In this regard, the NARSD will be encouraged to develop clear terms of reference for the operation of any PCGs that it may establish, including guidelines on membership, roles and responsibilities.

SECTORAL INTEGRATION MECHANISMS

The need to coordinate and integrate sectoral policies and programmes more effectively has increasingly been recognised as a key challenge for sustainable development. In some provinces, the P&D Departments have been mandated to lead this integration process. Although this has led to a number of partial successes, full integration has not yet been achieved; the creation of the Environment Section in the Planning and Development Department of NWFP is a good example of this.

The problem lies in the fact that ownership for virtually all plans, programmes and proposals has continued to remain with the department or sector in which they are initiated. The Planning and Development Departments do not contribute to the design or development of these programmes, but rather, have tended to play another role - that of ensuring that certain policy and regulatory standards are achieved. Although this is also an important function, it does not necessarily lead to sectoral integration. Policies and programmes continue to be considered from the standpoint of a single sector, and there is little incentive for inter-sectoral coordination or integration.

This situation is exacerbated by the fact that the P&D Departments themselves are internally divided along sectoral lines, into many different sections and units. This has proven to be especially problematic within the field of natural resource management, where the inter-dependencies among the different sectors mean that there is a particular need for integrated planning.

To address these various concerns, the following measures will be taken:

- n A single Natural Resource Management Section will be created within the Planning and Development Department. This NRM Section will seek to promote integrated planning by bringing all the different NRM units and sections together within a unified structure;
- n An Inter-Departmental Working Group on Sustainable Development will be established, to foster inter-sectoral consultations and the development of integrated policies, plans and programmes. The members of the Working Group will be drawn from the middle-level professional tiers, where the focus is on practical implementation issues and ownership for programme design and development is greatest. Communication amongst staff at this middle level is also likely to be less formal and more sustained than it would be at more senior levels in the NAA;
- n A cross-sectoral Secretaries' Committee on Sustainable Development will be established at the higher, decision-making level, with a mandate to review and approve the programmes developed by the

Inter-Departmental Working Group.

The Northern Areas Roundtable on Sustainable Development will receive periodic reports from both the Inter-Departmental Working Group and the Secretaries' Committee.

SECTORAL CAPACITY

Institutional capacity is not always recognised as a central and important issue in the context of sustainable development; as a result, it rarely receives the attention it requires, either in terms of policy development or the allocation of resources. And yet, it is ironic that - if the constraints to institutional capacity are effectively addressed - many other issues which tend to be accorded higher priority on the development agenda will also benefit. For example, an institution's capacity to generate, analyse and communicate data will not only affect its ability to select and formulate suitable policies, but also, its ability to implement these effectively. Ultimately, it is this capacity for policy identification and implementation that has an impact on public well-being.

If the state is said to exist for the well-being of its citizens, then it is incumbent upon the state and its institutions to function in an efficient manner. Recent reviews and studies, however, have indicated that the nation's public sector programmes suffer from a range of inefficiencies that result in poor service delivery. These inefficiencies, in turn, are largely the result of insufficient capacities at all levels and stages, ranging from decision making to actual implementation.



Najam-ul-Huda Khan

Good governance and political will, miracles can happen.

There are other, associated facets that also have a bearing on capacity, including: institutional practices; recruitment criteria and processes; promotion policies; transfer and posting processes; incentive regimes; performance evaluation systems; and rewards and sanctions. These factors, and the twin issues of institutional development and capacity building, all complement each other and cannot be addressed in isolation. An effective capacity enhancement strategy therefore needs to focus on both institutional development and capacity building, whilst simultaneously addressing these other contextual elements.

Many factors conspire against capacity development in Pakistan. Looking first at the issue of capacity building, there are few incentives in operation to motivate individuals to volunteer for training courses. For example, government staff is rarely provided with adequate financial resources to cover the costs of moving away from their place of work and/or residence in order to attend a training programme, nor do they receive any distinct or tangible career advantage from their participation. Skills acquisition and improvement are rarely included in individual assessments, and these assessments, in turn, are only weakly linked to career prospects. There are, therefore, very few performance-based incentives for civil servants. In some situations, there may even be disincentives in operation which discourage civil servants from participating in human resource development programmes. For example, participation in a longer-term training programme may require an individual to re-locate to a new posting; this may - depending on the new location - lead to a reduction in benefits and privileges.

Public policies continue to accord low priority to capacity building initiatives, as reflected in the relatively small budgetary allocations that are made to address capacity issues. There are very few systems in place within government to promote the assessment of training needs, to design skills enhancement programmes, or to encourage civil servants to participate in such courses.

The few capacity building programmes that do exist are primarily supply-driven initiatives, and suffer from numerous weaknesses. Most programmes are developed and operated by public sector institutions which do not need to compete for their assignments and thus have little incentive to ensure that their programmes are of a high quality. As a result, many capacity building initiatives within the public sector are characterised by poor planning, inadequate needs assessments, outdated curricula and ineffective teaching methodologies.

Capacity enhancement will be fundamental to successful NASSD implementation, and will need to address institutional development and human resource development, as well as the contextual aspects described earlier (such



AKCSP

Planning needs to be people centered.

as recruitment policies). To address these requirements, the following measures will be undertaken:

- n A comprehensive institutional development programme will be carried out, beginning with a carefully selected number of priority NAA departments and other government bodies. This will include: the review and reformulation of institutional mandates; the clarification of job descriptions; the development of mechanisms to enhance responsiveness and transparency; and the design, development and installation of data management systems;
- n An intensive capacity building programme will be designed and implemented, which comprehensively addresses the need for human resource development in key NAA departments. This will include: the development of effective needs assessment systems; the initiation of mechanisms to ensure that skills enhancement programmes correspond to departmental needs and priorities; and the formulation of policies which actively encourage and reward civil servants for taking part in such programmes;
- n The current emphasis on supply-side human resource development will be replaced by a growing emphasis on demand-based programmes. The elements of this policy shift will include: the initiation of a new requirement, making it obligatory for government departments to demonstrate that adequate resources have been allocated to human resources and institutional development; the placement of a high premium on institutional and individual performance; and the development of clear job descriptions and corresponding skills require-

- ments. An implementation plan will be developed, laying out the sequence of steps that will be taken during the course of this process, including training needs assessments, the evolution of job descriptions, and skills acquisition by government personnel;
- n The potential for using market-based systems to deliver the necessary training programmes will be explored. Not all training initiatives need be based within the public sector; the design and implementation of certain training programmes, for example, could be opened to competitive bidding involving both public and private sector organisations;
 - n Systems to ensure a closer match between staff placements and staff skills will be developed;
 - n A mechanism will be created by which a department's continued eligibility to access capacity development grants from government is made conditional on a demonstration that existing capacity is being utilised in the best possible configuration;
 - n Resource allocations to capacity building will be enshrined as a budgetary norm over the medium-term. Allocations may initially be broadly based on a proportion of the recurrent budget, and then subsequently refined on the basis of internal needs assessments and independent reviews. Continued investment beyond the medium-term will be subject to an evaluation of achievements.
- In addition to these initiatives within the public sector, it will also be critically important to build the capacity of

civil society groups, so that they may participate more fully in NASSD implementation.

ANNUAL PLANNING AND RESOURCE ALLOCATION PROCESSES

One of the principal features of the annual planning process is the prioritisation of resource allocations for development purposes; the process not only serves to highlight the government's key policies and programmes, but also, their relative positions on the development agenda.

As the NASSD's recommendations on multi-stakeholder consultation are brought into action, it will become increasingly important to develop mechanisms to ensure that the priorities and viewpoints of civil society are meaningfully reflected in this annual planning and resource allocation process. The Northern Areas Roundtable on Sustainable Development will need to take the lead in this process, by promoting the development of a close working relationship between government line departments and civil society groups. There will also be a need for the establishment of clear and formal linkages between the Roundtable and the Planning and Development Department. To this end, the following mechanisms will be put into place:

- n The Planning and Development Department will be formally required to demonstrate that it has appropriately reflected the recommendations of the Roundtable in its annual planning exercises;



Assessment of progress towards sustainability through stakeholders' participation.

- n The results of the annual planning process will be formally reviewed by the Roundtable. In practice, this will involve a review of the draft Annual Development Plan and its proposed budgetary allocations.

The annual planning and resource allocation process will also benefit from - and be guided by - the periodic reports and reviews generated by the NASSD's monitoring arrangements (described in Chapter 9); these reports will be made available to a wide range of bodies, including the various line departments and the Planning and Development Department. The reports should help to establish a more objective and accurate information basis on which to formulate the annual plans; they will also assist the Roundtable in determining the appropriateness and adequacy of the P&DD's policy and budgetary responses.

NEGATIVE LIST OF INVESTMENTS

The annual planning process will also result in the production of a "negative list" of investment options, sectors and projects. In the context of the NASSD, this negative list will have as its sole justification the requirements of sustainable development: any initiative that is likely to impinge in a negative manner on the NA's progress towards sustainable development will be included on the list.

During the initial stages of NASSD implementation, the negative list will be developed on the basis of fairly simple and basic criteria; more sophisticated criteria will subsequently be developed as the NAA's capacity to assess poten-



Syed Sajjad Imran

Loads of firewood, can these be replaced with alternate sources.

tial environmental and social impacts increases. In light of the critical role that natural resources play in sustaining the livelihoods and well-being of the NA's residents, it is envisioned that these criteria will address such issues as the potential impacts of investments on the sustainability of resource use, the maintenance of ecological processes and ecosystem services, and the conservation of biodiversity.

ENVIRONMENTAL ASSESSMENT

Environmental Impact Assessment

Environmental impact assessment is an important tool for enhancing progress towards sustainable development. It seeks to prevent or minimise negative environmental impacts whilst maximising the benefits of development interventions. More specifically, environmental impact assessment can help to address the challenge of adopting sound environmental management practices in the context of rapid economic development.

As an integral component of NASSD implementation, therefore, a number of measures will be undertaken to strengthen EIA procedures in the Northern Areas. In particular, steps will be taken to:

- n Ensure that the provisions of the Pakistan Environmental Protection Act, 1997 are fully implemented in the Northern Areas;
- n Develop sector-specific EIA guidelines and project screening criteria. In the first instance, all projects costing more than PKR 20 million will be required to submit an EIA along with their PC-I document. Similarly, all projects in the vicinity of key water channels, forest areas or biodiversity sites will be the subject of an EIA. In the absence of an EIA for these types of projects, a strict policy of no allocation of resources will be followed;
- n Enhance the EIA capacity of P&DD and the various line departments, through in-service training and the recruitment of additional environmental and social specialists;
- n Arrange for objective, third-party monitoring to be undertaken of particularly sensitive development projects, to ensure that environmental mitigation measures are being implemented as planned;
- n Institutionalise public consultation processes as an integral component of environmental impact assessments, in order to enhance information collection, transparency and accountability.

Strategic Environmental Assessment

Although EIA is a valuable tool for assessing the likely impacts of individual projects, it does not provide a mechanism for determining long-term, cumulative effects. Although each individual development project on its own

may be relatively benign, the combined impacts of multiple initiatives may eventually become severe.

To address these concerns, strategic environmental assessments will be carried out for the NA's priority development sectors, starting with the energy and water sectors. In order to ensure that these assessments contribute effectively to policy formulation, they will be repeated at periodic intervals of ten years.

COMMUNICATIONS STRATEGY

Communications activities will be actively used to create a supportive, enabling environment for NASSD implementation. To this end, the following measures will be undertaken:

- n A targeted communications campaign will be designed and implemented, using a mix of the available media options, including radio, television, the press, printed materials, seminars and briefings; the key stakeholders to be involved in such a campaign are summarised in Table 1. The campaign will seek to explain the rationale and approach of the NASSD, along with its vision, objectives and priority activities. A special set of materials will be produced for women, children and other disadvantaged groups;
- n The Shadbaad newsletter will be upgraded into a quarterly magazine (in Urdu), and used as a tool to share information about NASSD implementation and other major environmental and sustainable development initiatives and issues;
- n A series of training and skills development workshops will be organised for the formal media in areas such as: investigative reporting; environmental journalism; development communication; film production; photography; and editing;
- n Institutional, technical and financial support will be sought for press clubs and associations of environmental journalists. These forums will also be assisted to develop linkages with national and international associations of environmental journalists;
- n The feasibility of upgrading the NA's radio and television communications infrastructure will be assessed. In the first instance, efforts will be made to increase the transmitting power of the region's two radio stations to 100kW. The installation of television boosters in priority valleys will also be promoted, in line with the recent study by the Special Communications Organisation (SCO);



Najam-ul-Huda Khan

Awareness raising, a collective responsibility.

- n The NA's poetic and literary societies will be supported and strengthened, for example, through the organisation of regular mushairas on the environment and sustainable development;
- n Greater efforts will be made to involve the ulema in environment and development activities. Special reading and visual materials will be developed, based on Islamic injunctions related to the environment; in the first instance, the possibility of distributing the MACP book Conservation and Islam more widely will be explored. Consideration will also be given to creating a new forum for environmental discussions among the ulema and to including environmental topics in the curricula of religious institutions. In designing these outreach programmes, all activities will be carefully tailored so that they are sensitive to particular cultural and sectarian contexts;
- n The potential to use other informal communication channels - including festivals, sporting events, community organisations, village-based arts and cultural forums, government extension networks and women's societies - will be actively explored. In the first instance, priority will be accorded to making the Silk Route Festival a regular annual event.

Table 1

Key Stakeholders in the NASSD's Communications and Awareness Activities

Stakeholder Group	Rationale and Focus
Rural Communities	Rural communities constitute some 86 per cent of the NA's population, and thus have the largest stake in the sustainable development of the region. The NASSD communications strategy will accord particular priority to working with VOs, WOs, Village Conservation Committees, the Dehi Councils and other local groups.
NA Administration and Line Departments	By considering environmental issues at the planning stage of development, the Northern Areas Administration and government line departments can play a central role in reconciling socio-economic aspirations with the sustainable use of natural resources. There is, however, still a need to increase environmental awareness at all levels. To this end, short training courses will be organised on a regular basis, highlighting the linkages between environment and development, as well as particular issues of special concern to the Northern Areas. The NASSD communications strategy will also seek to work with the extension networks that have been established at the tehsil and district level by many line departments; these networks have direct interactions with local communities and thus constitute an important outreach mechanism.
Non-Governmental Organisations	The NGO sector is a particularly important channel for non-formal communication. The various NGO networks operating in the Northern Areas have considerable potential to raise awareness and to catalyse sustainable development at the grassroots level. The NASSD communications strategy will seek to ensure that these networks are provided with technical and institutional support, so that they can play a more effective advocacy role and act as intermediaries to reach out to the ulema, community leaders and VOs.
Media	The formal media play an important role in influencing the decisions of policy makers and in building public awareness. The NASSD communications strategy will seek to ensure that journalists working with the press, radio and television are equipped with the skills and technical knowledge required to report on complex sustainable development issues in an accurate and effective manner.
Public Representatives	The understanding and support of public representatives will be vital to successful NASSD implementation. To this end, the communications strategy will take active steps to ensure that the members of the Northern Areas Legislative Council are briefed on a regular basis about the progress of the NASSD as well as the status of key environment and development issues in the region.
Private Sector	The Northern Areas' private sector is growing rapidly. Improvements to communication infrastructure have led to a substantial growth in trade and to dramatic increases in the numbers of domestic and international tourists. The NASSD communications strategy will work with the newly established Northern Areas Tourism Development Board to promote environmentally sensitive tourism. NACCI will also be encouraged to mainstream environmental concerns into its activities and future plans. In collaboration with NACCI and other trade bodies, awareness campaigns will be launched aimed at "greening" business activities and promoting corporate environmental responsibility.
Ulema	Religious scholars command influential positions within NA society, and have access to an extensive network of mosques and religious shrines. The NASSD communications strategy will therefore seek to work with the ulema to help raise awareness of sustainable development issues.
Army and Frontier Works Organisation	The NASSD communications strategy will seek to catalyse conservation and sustainable development activities among the large numbers of military personnel stationed in the region. For example, efforts will be made to sensitise the Frontier Works Organisation - which is responsible for the construction and maintenance of communication infrastructure including the KKH - to integrate environmental concerns into its development activities. Similarly, the Northern Light Infantry Regiment will be encouraged to assist in environmental rehabilitation campaigns, including tree planting drives.
Federal Government	As the Northern Areas remain under the administrative control of the federal government, the communications strategy will seek to build awareness and support for the NASSD among the federal authorities, and in particular, within MoKANA.
Donors	In addition to GoP funding, financial support from the international donor community will be vital to successful NASSD implementation. The communications strategy will, therefore, seek to build support for the NASSD among a diverse range of donor agencies.

Box 8**Summary of the NASSD's Implementation Mechanisms**

The success of the NASSD will hinge upon the effective development and institutionalisation of a broad array of implementation mechanisms. Measures will be undertaken to:

- n Enhance data collection and statistical analysis, through the creation of a special Statistical Unit within Pⅅ
- n Create a multi-stakeholder Northern Areas Roundtable on Sustainable Development, to oversee and guide NASSD implementation, under the chairmanship of the Deputy Chief Executive. The Roundtable will also consider the establishment - on a needs basis - of multi-stakeholder Policy Consultative Groups, to help strengthen and formalise the consultative process;
- n Enhance accountability, by: operationalising the Efficiency and Discipline Rules; improving the public's access to information; and by requiring government agencies to prepare and circulate periodic reports on their programmes and performance;
- n Establish a special NASSD Coordination Unit within the Planning and Development Department;
- n Promote inter-sectoral coordination and integration, by: creating a single Natural Resource Management Section within the Planning and Development Department; establishing an Inter-Departmental Working Group on Sustainable Development, composed of middle-tier civil servants; and creating a cross-sectoral Secretaries' Committee on Sustainable Development;
- n Strengthen sectoral capacity, through the design and implementation of comprehensive institutional development and capacity building initiatives;
- n Reform the annual planning and resource allocation process, by: requiring the Planning and Development Department to demonstrate that it has duly reflected the recommendations of the NARoundtable on Sustainable Development in its annual planning exercises; and providing the Roundtable with a formal mandate to review the draft Annual Development Plan and budget;
- n Establish a negative list for investments;
- n Strengthen environmental assessment procedures (both EIA and SEA);
- n Develop and implement a comprehensive communications strategy in support of NASSD implementation.



Financial Resources

08

CHAPTER



PUBLIC SECTOR INVESTMENT BY THE FEDERAL GOVERNMENT

The Northern Areas remain heavily dependent upon federal funds to finance both recurrent and capital investments in the public sector. Although detailed economic data are not available, it is clear that the public sector remains a major player in the NA's economy, particularly in relation to the creation of employment opportunities and the development of infrastructure.

Continued public sector investment by the federal government will be critical to the successful implementation of the NASSD; this investment, however, will need to be re-aligned so that it more closely matches the objectives and priorities identified in the Strategy. There are, for example, large gaps in the NA's infrastructure which will require sizeable inputs from the public sector if they are to be addressed. Investment in the NA's infrastructure would help to provide an economic stimulus to the region's commercial and agricultural sectors. Improvements to the NA's transportation and communication linkages would also help to boost demand for the NA's goods and services, both within the region and down-country.

LOCAL FINANCIAL RESOURCES

The Northern Areas have had relatively little experience of local revenue generation through formal channels. Taxation, for example, has not been a major source of revenue for the public sector. At this stage, the principal experience of local revenue generation has come from the community level, where marked successes have been achieved. The work of AKRSP in promoting community ownership of infrastructure is a notable example; AKRSP and others have demonstrated that there is significant "willingness-to-pay" among local communities, provided the legitimacy of the development effort can be palpably demonstrated. It is, therefore, envisioned that the mobilisation of community resources will play an important role in NASSD implementation, and in particular, the develop-

ment of social and economic infrastructure at the local level.

In tandem with this approach, local resources will also be generated through formal mechanisms such as taxation. These measures will be introduced at a gradual pace. In the first instance, the current arrangements for levying existing charges and fees will be strengthened. Emphasis will be accorded to: enhancing collection efficiencies; developing user-friendly collection mechanisms; and demonstrating that the funds obtained are used in a responsible manner to address local priorities. These initiatives will be complemented by public awareness efforts, aimed at creating a culture of taxation and explaining the importance and benefits of the tax system. Moreover, introduction of realistic taxation will follow rising incomes which may come from sustainable development.

In other parts of Pakistan, the federal government has created a strong incentive for local revenue generation by agreeing to the payment of matching grants. A similar system should be brought into operation in the Northern Areas, but weighted in the NA's favour; for example, the federal government could initially agree to match the NA's locally generated revenues at a ratio of more than 1:1.

The Northern Areas provide many goods and services which are consumed by residents in other parts of the country (e.g., water) or by travellers from abroad (e.g., tourism). Although empirical studies have not yet been undertaken, there may be significant potential to place a tax on these types of goods and services in order to generate revenue for the NA Administration. In the first instance, the



IUCN Pakistan

Trophy hunting, an innovative economic incentive for wildlife conservation.

possibility of having a share in the royalty from the energy derived from the Northern Areas will be explored. The tourism can also be considered in the same way.

Another area for study and consideration is that of levies on natural resources. Economic theory suggests that, when the prices of natural resources are low, the goods produced from them will tend to be in high demand, leading to rapid natural resource exploitation and to a stream of income for the producers. The imposition of levies leads to an increase in price, which in turn, can be expected to lead to a fall in demand; although this may be desirable from the standpoint of promoting more sustainable natural resource use, a reduction in demand can also lead to socio-economic difficulties, such as a drop in producers' incomes.

In some situations, however, the imposition of a levy does not significantly affect demand and it therefore becomes possible to generate revenues without reducing local incomes. There may also be opportunities to combine the use of levies with development interventions aimed at adding value to specific goods and products. By diversifying the economy in this way, it may be possible to create a "win-win" situation, in which revenues are generated for government, local incomes are protected and natural resources are used more sustainably. It is not yet clear what impact the imposition of natural resource levies might have in the Northern Areas. However, they could be a potentially powerful mechanism for promoting NASSD implementation; they will, therefore, be the subject of further research and empirical studies.

Another innovative practice which will be given increased consideration during NASSD implementation is that of sharing the income derived from natural resources between the government and local communities. This approach has been successfully used by the Mountain Areas Conservancy Project within the context of trophy hunting and has led to a number of important benefits, including improved wildlife management and increased ownership, accountability and transparency. Opportunities to replicate this approach under the auspices of the NASSD will be actively pursued.

NORTHERN AREAS SUSTAINABLE DEVELOPMENT FUND

Sustainable development - and in particular, natural resource conservation and management - requires long-term investments that cannot readily be supported by the government's annual budgetary cycles. The government's planning and resource allocation processes tend to accord priority to short-term economic growth and the fulfilment of immediate needs, at the expense of longer-term objectives and sustainability. To address these concerns,



AKCSP

Implementation through people's participation.

a Northern Areas Sustainable Development Fund (NASDF) will be created, as a special fiscal instrument to leverage support for critical activities, particularly in the field of biodiversity conservation and natural resource management. One of the central aims of the NASDF will be to ensure an adequate and stable flow of funds to sustainable development activities, in the face of government budget oscillations.

The NASDF will seek to mobilise financial support from a number of sources, including international facilities (such as the Global Environment Facility) and federal government initiatives (such as the proposed National Environment Fund). At the local level, consideration will be given to the institution of new levies, such as environmental taxes and fees for the use of certain types of natural resources. Local capitalisation efforts of this kind will help the NASDF to leverage funds from national and international sources, and will also help to ensure that the Fund retains independence of decision making. The possibility of establishing the NASDF as a regional umbrella fund, with linkages to the trust fund initiatives of MACP and other projects active in the Northern Areas, will also be explored.

The NASDF's institutional arrangements will be particularly important. To ensure the Fund's effectiveness, it will be carefully structured and operated in order to promote credibility, transparency and independence. Amongst other features, the Fund will possess:

- n A clearly-defined legal status;
- n An independent board. The board will be given statu-

tory cover and a majority of its members will be drawn from civil society. Following the successful arrangements that have been used in other countries, the possibility of appointing members from international organisations will also be considered;

- n A flexible financial structure. This will be achieved through the creation of a multivariate fund, composed of three parts: a sinking fund, to absorb and utilise the yields from government levies and designated revenue items; a trust fund, capitalised through initial seed money from the government and buttressed through international contributions; and a grants fund, which will be used to mobilise support for priority activities;
- n A professional management body. This will be distinct from the board, and will operate under transparent rules and regulations.

INTERNATIONAL SUPPORT

It is evident from the last two years transfer of resources from the federal government to the Northern Areas that it has increased several folds. Continued international support through federal government, however, will be required to help the Northern Areas to address the growing gap between federal financial allocations and the costs of the region's development programmes. International funding from both bilateral and multilateral sources will be especially crucial to ensure successful implementation of the NASSD, and in particular, those components which



Syed Sajjad Imran

Hoping for a prosperous future.

cannot readily be incorporated into existing government programmes and structures.

SUPPORT FROM THE NGO SECTOR

Non-governmental initiatives have been particularly conspicuous in the Northern Areas, and successful NASSD implementation will rely upon the continued involvement and support of the NGO sector. It is envisioned that large NGOs such as AKRSP, IUCN and WWF-P will play a key role in mobilising technical, financial and institutional resources in support of the social and environmental priorities identified by the Strategy.

Local NGOs will also be key partners in the implementation of the NASSD. In particular, they have a critical role to play in mobilising communities and generating local resources. They can also act as important partners in public sector programmes, by providing an institutional base for local implementation of sectoral initiatives. These types of partnerships should enable the public sector to accumulate savings and leverage additional resources.

Local, national and international NGOs can also help communities to manage their financial resources in a more profitable manner, and thus, to contribute more effectively to local development. This, too, will be an important mechanism in support of NASSD implementation. Resource generation should not be viewed as the exclusive domain of the public sector; the enabling of resource generation at the community level will be an equally important impetus to sustainable development.

SUPPORT FROM THE PRIVATE SECTOR

Although the Northern Areas' private sector remains small and under-developed, it has significant potential for growth, particularly within the SME sector. It will become increasingly important, therefore, for the private sector to play a role in resourcing and implementing the NASSD. Specific policies will need to be put in place so that the private sector in the Northern Areas can produce private wealth that can then be used for provision of public goods. Such policies may include incentive mechanisms in the short-to-medium term to encourage the private sector to grow. A set of fiscal incentives should be created to encourage investment in the Northern Areas. Among other measures, the following actions will be undertaken:

- n Mechanisms to bring the informal economy into the tax net will be gradually introduced. As a first step, a detailed survey of the NA's informal economy will be undertaken;
- n The private sector will be encouraged to make contri-

- butions to the Northern Areas Sustainable Development Fund. The possibility of according special tax breaks and concessions to those businesses that make donations to the Fund will be explored;
- n The possibility of introducing pollution charges (based on the “polluter pays” principle) will be examined. The revenue generated from such charges could be channelled into the NASDF;
 - n Partnerships and synergies between the private sector and NGOs/ the public sector will be actively promoted. There is particular potential for such partnerships in the areas of ecotourism, the production and sale of handicrafts, and the cultivation and marketing of medicinal plants.
 - n A set of fiscal incentives to encourage investment in the Northern Areas.

Box 9

Summary of the NASSD’s Financing Mechanisms

- n Ensure that the federal government’s investment in the NA’s public sector is maintained at or above current levels, and re-aligned in accordance with NASSD objectives and priorities;
- n Develop local financial resources, by: strengthening existing arrangements for the collection of levies and user fees; gradually introducing a local taxation system; and exploring other options for enhancing revenues, such as the introduction of tourism taxes and natural resource levies. As is the case in other provinces, the federal government should be encouraged to augment the NA’s locally-raised funds through the provision of matching grants;
- n Establish a Northern Areas Sustainable Development Fund, with contributions from local, national and international sources. The Fund will have a clearly defined legal status, an independent board and a flexible financial structure. It will be managed by a professional management body;
- n Continue to seek international support from both bilateral and multilateral sources;
- n Mobilise additional support from the NGO sector;
- n Enhance the role of the private sector in financing and implementing the NASSD, for example by exploring the potential for: bringing the informal sector into the tax net; providing tax concessions in exchange for contributions to the NASDF; and adopting “polluter pays” principles.



Monitoring and Assessment



CHAPTER

09

The design of appropriate mechanisms to monitor and assess development initiatives has been the subject of intense review in recent years. Monitoring and assessment approaches have, for example, been the subject of continuing evaluation by IUCN as well as many other organisations, including numerous bilateral and multilateral development agencies.



AKCSP

Community's participation – key to effective monitoring.

The debate about monitoring and assessment mechanisms is not productively reproduced here. However, it is critical to point out that conventional approaches to monitoring, involving such tools as Logical Framework Analysis (LFA) and Results-Based Management (RBM), become less and less useful the further one moves away from project-specific initiatives such as the development of physical infrastructure. Complex, multi-sectoral, sustainable development strategies such as the NASSD pose particular challenges to monitoring and assessment.

The situation is especially problematic in a region such as the Northern Areas, which is characterised by a dearth of reliable, up-to-date baseline information and severe constraints on data collection. For example, the security restrictions imposed on the use of aerial photography and satellite imagery make it extremely difficult to carry out meaningful environmental monitoring.

Notwithstanding these constraints, this chapter puts forward suggestions for the development of a monitoring and assessment framework for the NASSD. Two distinct components are envisioned: a component for operational monitoring, which will be used to track the implementation the NASSD's many recommendations and their immediate results; and a component for impact monitoring, which will be used to assess the longer-term outcomes of the Strategy and the NA's progress towards sustainability. Both components will be designed in such a way that they:

- n are simple to operate;
- n rely primarily on readily available sources of information;

- n promote the participation of a wide group of stakeholders;
- n build upon the institutional mandates and strengths of individual stakeholders;
- n facilitate periodic corrective action, in order to steer the NASSD process towards the achievement of its sustainable development objectives.

These two monitoring components are described in more detail below.

TRACKING NASSD IMPLEMENTATION

Participatory monitoring frameworks will be developed at several different levels to track NASSD implementation. These will include:

- n A broad, five-year implementation and monitoring plan, to be developed by P&DD in consultation with other stakeholders. The plan will identify: priority NASSD activities, expected results and indicators; lead institutions (civil society organisation or government agency); and timelines. The framework will be developed on a "rolling" basis, thereby enabling it to be updated and revised at regular intervals;
- n Five-year sectoral implementation and monitoring plans, to be developed by the government line departments, with the assistance of the Policy Consultative Groups (where these have been established). These will be more detailed than the overall NASSD implementation plan described above, but will otherwise follow the same general format;

- n Implementation and monitoring plans for individual civil society organisations that are expected to play a central role in the NASSD. These might, for example, include selected NGOs that have expressed a particular interest in contributing to NASSD implementation.

In order to develop and operationalise these different systems, it will be necessary to build the monitoring capacity of P&DD and the various line departments. The ultimate aim will be to ensure that each of the principal institutions involved in NASSD implementation has its own, in-house, monitoring capability. Organisations such as IUCN and AKRSP will be requested to assist in meeting these capacity building requirements.

The responsibility for consolidating the information flowing from the three different monitoring levels will be vested in the Planning and Development Department. In this regard, P&DD will be responsible for preparing six-monthly progress reports on the status of NASSD implementation; these will be formally submitted to the Northern Areas Roundtable on Sustainable Development, and widely circulated to other organisations with a role in the NASSD, including NALC, the Inter-Departmental Working Group, the Secretaries' Committee, the NASDF, the various government line departments and MoKANA. The reports will also be widely distributed to NGOs, the private sector and other civil society actors.

To complement and support these internal monitoring frameworks, an independent external review of NASSD implementation will be commissioned at regular intervals of three to five years.

ASSESSING PROGRESS TOWARDS SUSTAINABILITY

In order to determine the impact of the NASSD on the Northern Areas' quest for sustainable development, a periodic assessment of the status of the environment and human well-being will be carried out. Regular assessments of this kind will enable key NASSD stakeholders to know whether efforts are being channelled in the right direction and if the desired, longer-term results are being achieved.

Over the last decade, IUCN and the International Development Research Centre (IDRC) have developed a participatory and systematic approach to assessing and measuring progress towards sustainability. This approach - known as the Well-being Assessment Method - has now been field tested in Asia, Africa and Latin America, and has evolved considerably over the years.

The Well-being Assessment Method is based on the understanding that sustainable development can only be achieved by maintaining and improving the status of ecosystems and human well-being; it therefore accords equal importance to measuring both. For these reasons, it is particularly well-suited to measuring progress towards the NASSD's long-term goal, and will be adopted as the principal framework for assessing sustainability in the Northern Areas.

Initial work on developing an assessment system for the Northern Areas has already been carried out by IUCN and P&DD, as part of the NASSD formulation process.



IUCN Pakistan

Ecosystem wellbeing, equally important as human wellbeing.

This system will now be strengthened, improved and operationalised, by:

- n Establishing a clear institutional home for the system within the Planning and Development Department. (It is important to note that this will not preclude the maintenance of “mirror databases” in other government departments or within the NGO sector);
- n Building the capacity of P&DD and other stakeholders to use the Well-being Assessment Method;
- n Identifying a comprehensive set of sustainability indicators, through a participatory process involving broad stakeholder consultation. The selection of appropriate indicators will be fundamental to the success of the assessment system, and will build upon the preliminary work that has already been undertaken by IUCN and P&DD (see Box 10). The indicators will be carefully selected so that they are capable of revealing changes and trends related to a wide range of issues that characterise both human well-being and ecosystem condition;
- n Developing an effective system for information gathering. This will include the identification of specific partners and institutions, as well as the establishment of clear roles and responsibilities. The new Statistical Unit will have a central role to play in the information gathering process; however, many other organisations

will also be encouraged to play a part (particularly in relation to primary data generation), including academic institutions, research centres and NGOs. Special attention will be paid to addressing the severe gaps in the NA's environmental information base; if these data gaps remain unfilled, the credibility of the entire assessment system will be undermined;

- n Seeking regular interaction with NWFP and Balochistan, where similar systems for assessing progress towards sustainability are being established as part of the provincial conservation strategy process;
- n Exploring the potential for using the Well-being Assessment Method at the district and tehsil levels, once the overall system for the Northern Areas has been successfully established. This will help to reveal differences among the NA's administrative units and enable sustainable development interventions to be designed more effectively.

The first well-being assessment will be carried out at the start of NASSD implementation, in order to establish a baseline against which future changes can be measured. On the basis of this assessment, the Planning and Development Department will be charged with the responsibility of preparing a State of the Environment and Development Report. The report will interpret and present

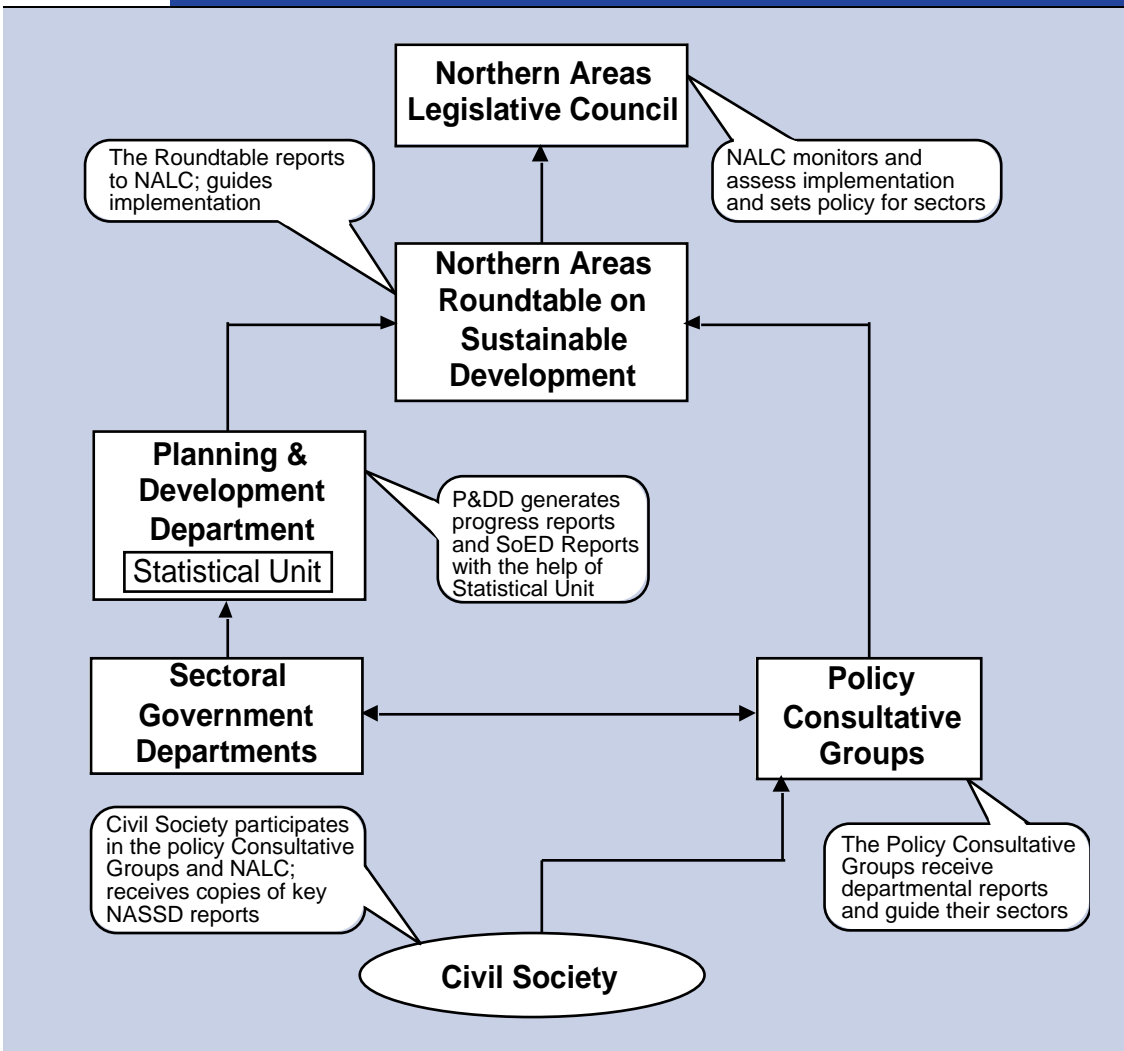
Box 10

Initially Selected Indicators for Assessing NA's Progress Towards Sustainability

Dimension	Indicator
Human Wellbeing	
Population and Health	Infant Mortality Rate (IMR)
	Maternal Mortality Rate (MMR)
	Population / doctor ratio
Economy and Wealth	Per hectare wheat yield (in tons)
Knowledge, Culture and Skills	Percentage of local language radio broadcast airtime of the total radio broadcast airtime
	Teachers/ student ratio (primary schooling)
Infrastructure	Generated electricity vs. electricity demand ratio
	Number of telephone lines / 1,000 people
	Percentage of metalled roads of the total length of roads in NA
Equity	Reported Incidence of Homicide per hundred thousand population/ per year
	Per capita public spending (in Pak Rupees) per annum
	Equal access to high school education by females
Ecosystem Wellbeing	
Land	Percentage of area under cultivation of the total cultivable area
Water	Mean annual precipitation
Air	Ambient Carbon Oxides in Urban Areas
Flora	Percentage of Protected Areas having management plans, of the total protected areas
Fauna	Percentage of trophy sized animals in total population (of Markhor)

Figure 2

Proposed Monitoring and Assessment Arrangements for the NASSD



the data in a manner which makes the information readily accessible to non-technical groups and individuals, as well as the wider public. In this regard, it is envisioned that the report will rely extensively on the use of diagrams, charts and graphs to convey information (rather than text).

The baseline SoED Report will be circulated to all the organisations with a direct role in NASSD implementation, including the Northern Areas Roundtable on Sustainable Development, the Inter-Departmental Working Group, the Secretaries' Committee, the Northern Areas Legislative Council, the NASDF, the various government line departments and MoKANA. It will also be widely distributed to NGOs, the private sector and other civil society actors in order to create greater awareness of sustainable development issues and to foster continued debate and discussion about policy options.

Updated information on the well-being indicators will be prepared and circulated on an annual basis. Full-scale well-being assessments and trend analyses will be carried

out at regular intervals of five years, in tandem with the preparation of the Northern Areas' five year development plan. Each full-scale assessment will lead to the production and circulation of a comprehensive State of the Environment and Development Report.

INSTITUTIONAL ROLES AND RESPONSIBILITIES

Rather than depending on a single, hierarchical monitoring chain (as has traditionally been the case in the past), both of the NASSD's monitoring components will be designed such that corrective action can be initiated by multiple stakeholders at multiple levels. Although this feature has many benefits, a prominent lesson to emerge from previous monitoring experiences is that it is important to avoid blurred responsibilities; the role of each institution needs to be clearly defined. At the same time, the roles of individual institutions need to be complemen-

tary, so that the overall monitoring effort is cohesive and synergistic (Figure 2). In this regard, the roles and responsibilities of the key institutions that are to be involved in the NASSD's monitoring and assessment activities are described below:

Planning and Development Department

The Planning and Development Department will have a broad overview of development in the Northern Areas that is not available to the sectoral line departments. P&DD will therefore play the central role in coordinating and facilitating the NASSD's various monitoring and assessment arrangements. This will entail working with the line departments and other stakeholders to ensure that the necessary monitoring arrangements are in place and functioning.

In addition to this coordination role, P&DD will be responsible for the preparation of six-monthly NASSD implementation reports, comparing the progress achieved against the targets specified in the NASSD's five-year implementation plan. P&DD will also have lead responsibility for the preparation of the State of the Environment and Development Reports at five-year intervals; these reports will analyse the trends in human and ecosystem well-being, and will be a particularly important source of information for both government and civil society.

Northern Areas Statistical Unit

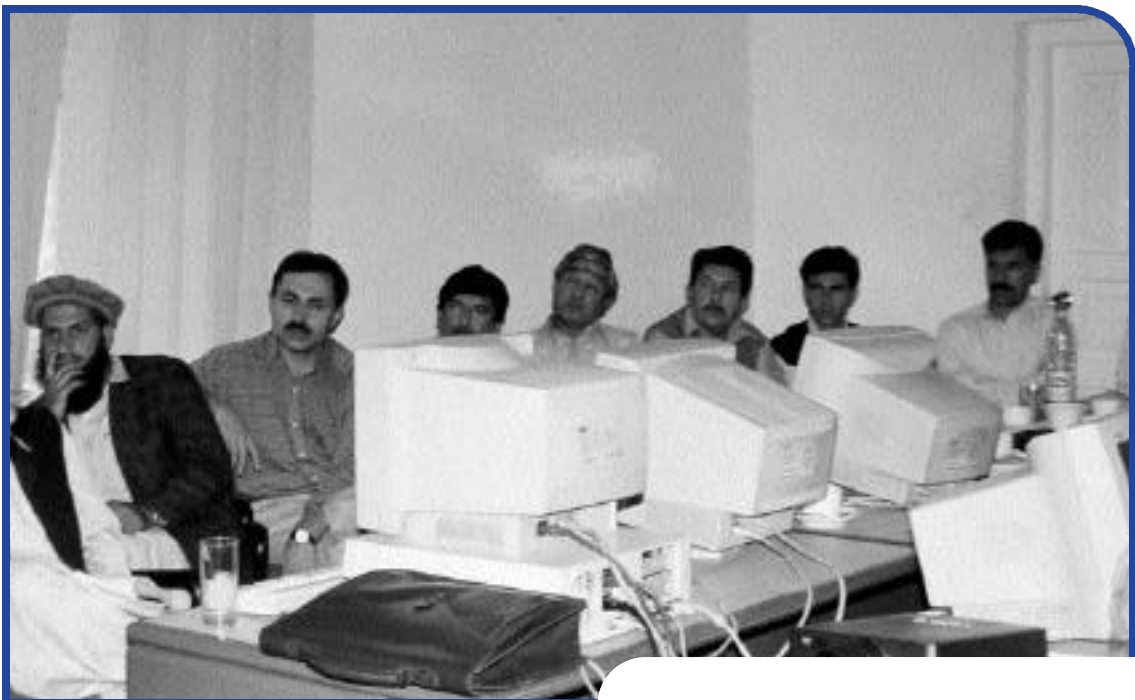
The new Statistical Unit within P&DD will be charged with a mandate to collect, organise and analyse data on the

Northern Areas. It will have particular responsibility for collating data related to the sustainability indicators that are to be used in the well-being assessment, and for providing P&DD with the information it will require to prepare the SoED Reports.

Northern Areas Roundtable on Sustainable Development

The Northern Areas Roundtable on Sustainable Development will be a multi-stakeholder body, designed to ensure that an overview of NASSD implementation is maintained. It will have the legal authority to require the line departments to generate the information and sectoral reviews it will require to guide NASSD implementation. The Roundtable will also receive regular reports from other sources, including the Inter-Departmental Working Group on Sustainable Development and the Secretaries' Committee on Sustainable Development. From time to time, the Roundtable may carry out its own cross-sectoral reviews, particularly in those situations where there is a need for a new perspective or there are important information gaps to be addressed.

The Roundtable will be vested with a mandate to implement corrective policy and programmatic actions, where these are required to ensure that the NASSD remains on course. It will also have the formal responsibility of keeping the Northern Areas Legislative Council informed of the status of NASSD implementation.



IUCN Pakistan

Information technology, an effective tool in monitoring.

- n Establish a multi-level, participatory monitoring framework to track the status of NASSD implementation. The framework will identify: priority activities; expected results and indicators; lead institutions; and timelines;
- n Provide P&DD with the mandate to collate and synthesise the information flowing from the different monitoring levels, and to prepare six-monthly progress reports on NASSD implementation for formal submission to the Northern Areas Roundtable on Sustainable Development;
- n Establish a system to assess the Northern Areas' progress towards sustainability, based on the Well-being Assessment Method developed by IUCN and IDRC. Among other measures, this will require the participatory identification of sustainability indicators, that can be used to detect changes and ascertain trends in both human and ecosystem well-being;
- n Provide P&DD with a mandate to prepare a State of the Environment and Development Report at five-yearly intervals, using the information generated by the sustainability indicators;
- n Ensure that all monitoring and assessment reports are widely circulated within both government and civil society;
- n Enhance the monitoring and assessment capacity of P&DD and other key institutions involved in the NASSD;
- n Organise an independent evaluation of the status of the NASSD and the effectiveness of its implementation arrangements at regular intervals of three to five years.

Policy Consultative Groups

The proposed Policy Consultative Groups will be established by the Roundtable, on a needs basis. They will be composed of both civil society and government representatives, and are expected to play an advisory role in relation to the line departments and NASSD implementation. In particular, they will be responsible for reviewing the line departments' progress reports and for comparing these with the targets specified in the sectoral implementation plans.

Multi-stakeholder mechanisms of this kind, which enable the perspectives of civil society to be brought into the decision-making arena, have increasingly been recognised as an important feature of good governance. Similar consultative groups established in other parts of Pakistan in connection with the development of provincial conservation strategies have delivered promising results.

Line Departments

The various line departments will provide NARSD with regular reports, describing their activities in relation to NASSD implementation. The reports will be prepared according to a standardised format, bearing in mind the particular information requirements of P&DD and the Roundtable; the reports should also help to generate information relevant to the sustainability indicators, for eventual use in preparing the SoED Reports.

Departmental performance will be partly judged on the basis of these reports; their contents will also be widely communicated to the public, in order to foster a broad review. The mandatory production and dissemination of the reports will not only contribute to NASSD monitoring, but also, to the objectives of transparency and accountability.

Northern Areas Legislative Council

The experiences of the NCS, the Sarhad Provincial Conservation Strategy (SPCS) and the Balochistan Conservation Strategy (BCS) have highlighted the importance of fostering broad societal ownership, in order to promote effective implementation of sustainable development strategies. They have also highlighted the importance of ensuring that policy setting, political direction and legislative processes related to environmental management and socio-economic development are complementary and mutually supportive. For these reasons, the Northern Areas Legislative Council will have a crucial role to play in the NASSD.

The NALC is composed of directly elected members and is the highest policy-making forum in the Northern Areas. As such, it will serve as the over-arching monitoring institution for NASSD implementation. The NALC will receive all the reports generated in connection with the Strategy, so that these may be reviewed, discussed and debated within Council. Where necessary, the NALC may call for corrective action, in order to promote and safeguard the interests of the people of the Northern Areas.

For the Council to fulfil these functions effectively, clear and regular communications will be established between the NALC and a number of bodies concerned with NASSD implementation, in particular, the Roundtable and P&DD. There may also be a need to build the awareness and capacity of some Council members in relation to such issues as sustainable development, the use of sustainability indicators and the Well-being Assessment Method.

