

Our Mission

WWF - Pakistan aims to conserve nature and ecological processes by:

- Preserving genetic, species and ecosystem diversity
- Ensuring that the use of renewable natural resources is sustainable, both now and in the longer term
- Promoting actions to reduce pollution and the wasteful exploitation and consumption of resources and energy

Vision of the Indus Ecoregion Programme

"Mankind coexists with nature in complete harmony and biodiversity flourishes in its respective habitat"

Indus for All Programme, WWF - Pakistan Programme Management Unit (PMU)

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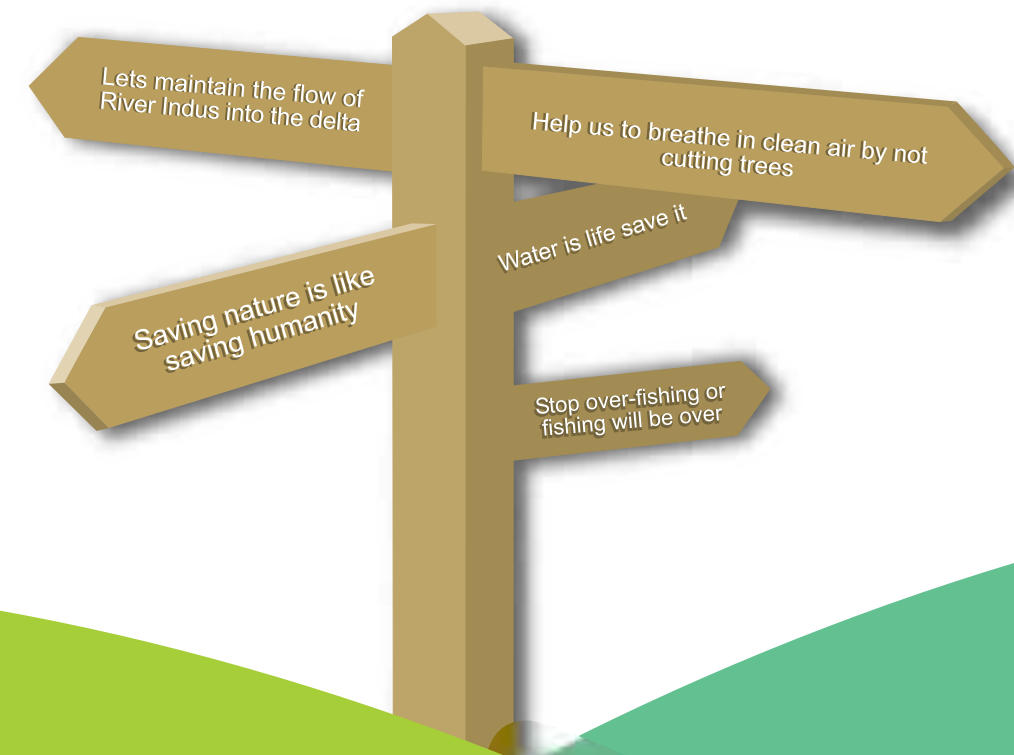
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INDUS ECOREGION COMMUNICATION & AWARENESS STRATEGY



Indus for All Programme
World Wide Fund for Nature Pakistan (WWF - P)
March 2008

**INDUS ECOREGION
COMMUNICATION & AWARENESS
STRATEGY**

Indus for All Programme, WWF - Pakistan

The Indus For All Programme is the first five-year implementation phase of the 50-year vision of the Indus Ecoregion Programme. The Programme aims to conserve the rich biological diversity of the Indus ecoregion through livelihoods improvement of local communities. The Indus ecoregion lies in the lower Indus basin and covers approximately 65% of the Sindh Province in Pakistan.

The first implementation phase (April 2007-March 2012) follows the completion of a 9-month inception phase (July 2006-March 2007). Of the 15 priority sites identified under the Indus Ecoregion Programme, four critical ecosystems in three districts (Thatta, Nawabshah and Sanghar) have been initially selected for the implementation of the *Indus For All Programme*. These include coastal ecosystem/mangrove forests (Keti Bunder, Thatta), a freshwater wetlands ecosystem (Keenjhar Lake, Thatta), a riverine forest ecosystem (Pai Forest, Nawabshah) and a desert-wetlands ecosystem (Chotiari Wetlands Complex, Sanghar).

The Programme is being implemented through site-specific implementation units supported by a Programme Management Unit based in Karachi.

At the apex level, the Programme is supported by the Indus Ecoregion Steering Committee (IESC), established under the Chairmanship of the Additional Chief Secretary (Development), Planning and Development Department, Government of Sindh. This committee is mandated to provide institutional and strategic support in the implementation of the Indus Ecoregion Conservation Plan.

The Programme wishes to acknowledge gratefully the generous financial support of the Royal Netherlands Embassy in Pakistan.

Indus Ecoregion Communication and Awareness Strategy

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List of Acronyms

AKPBS	Aga Khan Planning and Building Services
C&A	Communication and Awareness
CBOs	Community-based Organizations
CCB	Citizen Community Board
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
EPA	Environmental Protection Agency
ER	Ecoregion
FGD	Focus Group Discussions
GOs	Government Organizations
IFAP	Indus For All Programme
IUCN	The World Conservation Union
LBOD	Left-bank Outfall Drain
LNGO	Local Non-governmental Organization
MoU	Memorandum of Understanding
MNA	Member National Assembly
MPA	Member Provincial Assembly
NGOs	Non Governmental Organization
NRM	Natural Resource Management
P-E	Poverty and Environment
PFF	Pakistan Fisher Folk Forum
PIU	Programme Implementation Unit
PMU	Programme Management Unit
PMNH	Pakistan Museum of Natural History
PPAF	Pakistan Poverty Alleviation Fund
PRSP	Pakistan Rural Support Programme
RBOD	Right-bank Outfall Drain
Sq. Km.	Square Kilometers
UNDP	United Nation Development Programme
VDOs	Village Development Organizations
WWF	World Wide Fund For Nature

Foreword

Nature's fragile web is increasingly at risk as human activities threaten biodiversity. While it is important to conserve nature everywhere, we face a recurrent dilemma: with the bewildering number of species and habitats, how should we prioritize our efforts?

In response to this dilemma, WWF has, together with experts from around the world, identified terrestrial and seascapes of the Earth called ecoregions, which best represent the vastness of biodiversity and ecological processes. From this, WWF has developed a priority list known as the "*Global 200*" and so far 238 ecoregions have been identified around the globe.

In order to conserve the full expression of the ecoregions' biodiversity, WWF envisions a long-term conservation programme, and is in the process of developing Ecoregion Programmes for those areas which have been prioritized. WWF applies the ecoregion approach through time-tested initiatives such as protected areas establishment, livelihood improvement of local communities, partnership building, enhancing stakeholders' capacity and advocacy for policy change. This entire approach is being carried out on a large scale by engaging a broader range of issues and partnerships than ever before.

Five ecoregions exist in Pakistan; the Western Himalayan Temperate Forests, the Tibetan Plateau, the Rann of Kutch, the North Arabian Sea and the Indus Ecoregion. Four of the five ecoregions share their areas with neighbouring countries while the Indus ecoregion falls entirely within the territories of Pakistan. More importantly, it has been ranked as the 40th most significant ecoregions in the world. The socio-economic and ecological significance of the Indus Ecoregion led WWF-Pakistan to formulate the ***Indus Ecoregion Programme***, which comprises of a 50-year vision of biodiversity conservation and livelihoods improvement. The first five-year implementation phase (2007-2012) of the Programme is known as *Indus For All Programme*.

One of the important dimensions of the Programme is to impart conservation values amongst all stakeholders in order to promote positive actions and informed decision making for biodiversity conservation in the ecoregion. For this purpose, the Programme undertakes substantial initiatives for capacity-building, communication, education and public awareness. To achieve its objectives effectively and efficiently, the Programme has developed this Communication and Awareness Strategy in consultation with key stakeholders. It specifies interventions to be carried out in the Programme areas and provides guidance to both staff and stakeholders to accomplish their goal in a professional and committed way.

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1. Background

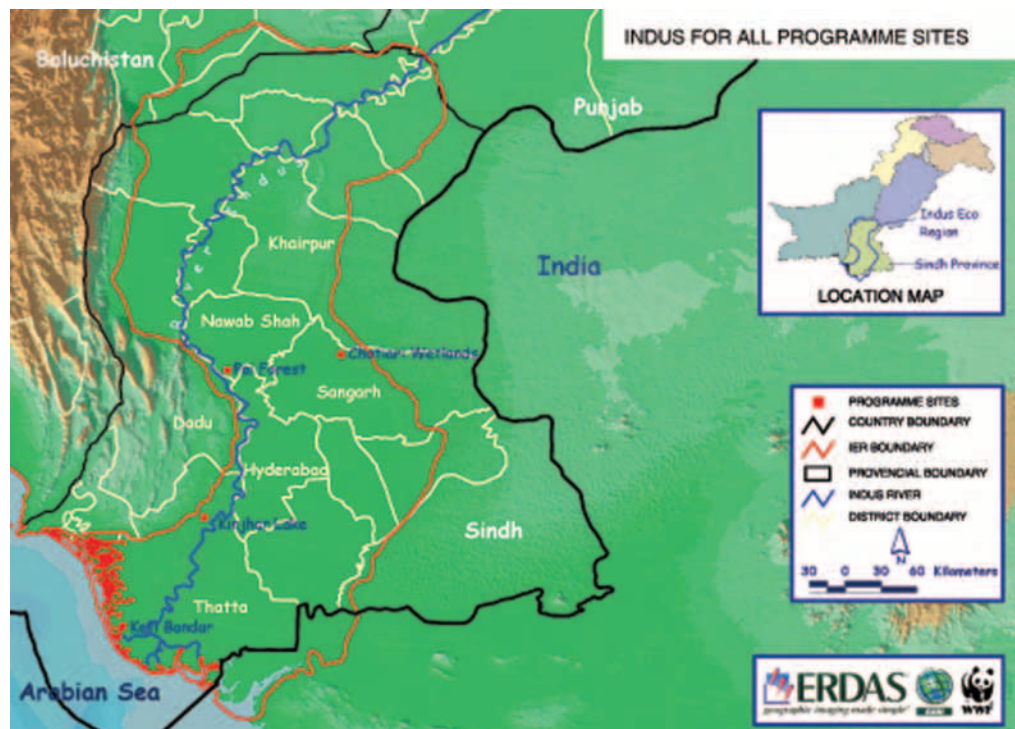
1.1 The Indus Ecoregion

The Indus Eco-region is one of the 238 eco-regions (Global 200) identified globally to reflect their ecological significance and representation of the Earth's biodiversity richness. Also ranked amongst the forty biologically most significant ecoregions in the world, the Indus ecoregion lies in the lower Indus Basin in Pakistan. It covers approximately 65% of Sindh Province while a small north-western part of the ecoregion extends slightly into Balochistan. The fifth largest delta in the world, the Indus Delta, forms the southern part of the Indus Ecoregion and is located at 24°06'N and 067°42'E

covering an area of 472,800 ha. Its 129,000 ha of mangroves, mostly *Avicenna marina*, comprise 97% of the total mangrove area in the country. This is said to be the seventh largest mangrove forest in the world. The delta supports a number of species of migratory water fowl (including the threatened Dalmatian pelicans), fish (including Palla - *Tenualosa ilisha*), and dolphins (Plumbeous dolphin, Finless porpoise, and Bottlenose dolphin).

Global 200 Ecoregions

The Global 200 is a ranking of the earth's most biologically outstanding terrestrial, freshwater and marine ecosystems. It is the first comparative analysis of the earth's ecosystems that covers all habitat types on the planet, on the landmasses and in the oceans, providing a blueprint for biodiversity conservation on a global scale. In 1997, the World Wide Fund for Nature with support from other scientific institutions such as the United Nations Environment Programme, Birdlife International and the National Geographic Society, carried out the Global 200 analysis that resulted in identification of 238 ecoregions around the globe. Defined as a large unit of land or water harbouring a geographically distinct assemblage of species, natural communities and environmental conditions, the natural resources and socioeconomic conditions of an ecoregion provide the basis for development of ecoregion conservation programmes, action plans and a long-term biodiversity vision.



Some 40 settlements in the area, with about one million people, find their livelihoods largely from fishing. Some remnant patches of the riverine forests are found along the mighty River Indus that flows down the ecoregion and falls into the Arabian Sea. In addition, the ecoregion contains significant wetlands of which ten have been designated as Ramsar Sites – wetlands of international importance. The significant wildlife species of the area include the blind Indus Dolphins, Hog deer, Gavial, Marsh crocodile and grey partridges. The area is rich in cultural and religious heritage, as it traces back to *Mohenjo Daro*, one of the earliest civilizations in the world that flourished along the River Indus.

The unique biological diversity, socio-economic significance and a rich cultural heritage of this ecoregion make it a priority for conservation actions.

1.2 The Indus Ecoregion Programme

The socio-economic and ecological significance of the Indus Ecoregion led WWF-Pakistan to formulate the **Indus Ecoregion Programme**. The Programme comprises of a 50-year long vision of biodiversity conservation and livelihoods improvement in the ecoregion.

The first five-year implementation phase (April 2007 to March 2012) of the Indus Ecoregion Programme is known as the **Indus For All Programme**, which follows the completion of a 9-month inception phase (July 2006-March 2007). Developed through a rigorous multi-stakeholder consultative process by involving government, civil society organisations, academia and communities, the Programme is implemented by WWF Pakistan under the overall supervision of the Provincial Government of Sindh. The Programme has received generous financial support from the Royal Netherlands Embassy in Pakistan.

The rationale for developing the Indus For All Programme also stems out of the poverty-environment nexus concept and its relatively recent application to development and conservation work. The Programme aims to improve livelihoods through improved natural resource management in four priority sites in three districts of Sindh Province, namely: Keti Bunder coastal ecosystem and Keenjhar freshwater lake in Thatta; Chotiari Wetlands Complex in Sanghar; and Pai forest in Nawabshah. Conservation of critical eco-systems in these sites will be carried out in collaboration with local communities, Government departments, civil society organisations, academia and local government institutions.

The programme intends to achieve the following objectives:

- ❑ Community-based Natural Resource Management in four priority areas (Keti Bunder, Keenjhar, Pai forest and Chotiari);
- ❑ Improved natural resources and livelihoods through mainstreaming of poverty-environment linkages at policy, planning and decision-making levels;
- ❑ Improved institutional capacity and awareness for sustainable environmental management at various levels; and
- ❑ Improved alignment and collaboration for stakeholder interventions.

1.3 Threats to Biodiversity, Causes and Effects

The Indus ecoregion is facing some critical issues associated with biological diversity, which are both natural and anthropogenic in nature. Some major issues interconnected directly or indirectly with livelihoods of human population that have severe impact on environmental resources in the ecoregion are listed below:

Threats	Causes	Effects	Consequences
Reduction in fresh water flow into the delta	<ol style="list-style-type: none"> 1. Upstream diversion 2. Lack of political constituency of environment 3. Increased competition among different sectors 	<ul style="list-style-type: none"> ▪ Loss of habitat ▪ Loss of mangroves ▪ Sea intrusion ▪ Reduction of fish species ▪ Loss of livelihood 	Rising poverty
Water Pollution	<ol style="list-style-type: none"> 1. Disposal of untreated industrial effluents 2. Population growth 3. Lack of political will and institutional deficiencies 4. Extensive use of chemical agriculture inputs 	<ul style="list-style-type: none"> ▪ Loss of habitat and biodiversity ▪ Marine/riverine pollution ▪ Degradation of wetlands such as Manchhar ▪ Contamination of ground water 	<p>Displacement and migration</p> <p>Poor human health</p>
Illegal Hunting & Logging	<ol style="list-style-type: none"> 1. Weak policy enforcement 2. Lack of awareness 3. Land encroachment 	<ul style="list-style-type: none"> ▪ Loss of riverine forest ecosystem ▪ Extinction of species 	<p>Malnutrition</p> <p>Inequitable access to natural resources</p>
Climate Change	<ol style="list-style-type: none"> 1. Development Paradigm 2. Greenhouse Gases 	<ul style="list-style-type: none"> ▪ Irregular weather patterns ▪ Rising temperature ▪ Land degradation in coastal areas ▪ Loss of livelihoods of the deltaic communities 	Droughts, floods, cyclones and sea storms
Population Growth	<ol style="list-style-type: none"> 1. Low literacy 2. Religious and cultural taboos 3. Policy failure 4. Ill-planned human settlements 	<ul style="list-style-type: none"> ▪ Food security ▪ Energy requirements ▪ Increasing housing demands ▪ Increased pressure on natural resources ▪ Urbanization 	<p>Destruction of rich cultural and biological heritage</p> <p>Development disparity</p>
Governance issues	<ol style="list-style-type: none"> 1. Top-down decision making 2. Weak civil society institutions 	<ul style="list-style-type: none"> ▪ Unequal resource distribution ▪ Lack of ownership by communities for natural resources 	Vicious cycle of poverty and resource degradation
Poorly designed infrastructure projects	<ol style="list-style-type: none"> 1. Lack of adequate research 2. Low priority to environmental aspects 3. Misperception of development' 	<ul style="list-style-type: none"> ▪ Alteration/loss of habitats e.g. Loss of coastal lagoons, construction of Chotiari Reservoir 	Social disharmony
Desertification	<ol style="list-style-type: none"> 1. Water logging & Salinity 2. Sea intrusion 3. Low ground water recharge 	<ul style="list-style-type: none"> ▪ Loss of productive land ▪ Loss of livelihoods 	Weaker societies
Overexploitation of fisheries resources	<ol style="list-style-type: none"> 1. Weak policy enforcement 2. Unsustainable and harmful fishing practices 3. Lack of awareness 	<ul style="list-style-type: none"> ▪ Reduction in fish stocks such as Palla (<i>Tenulosa illisha</i>) 	

2. About the Communication and Awareness (C&A) Strategy

2.1 Why a C&A Strategy?

The Ecoregion Programme presents a comprehensive package of interventions in order to address the underlying natural resource issues of the Indus ecoregion affecting poverty-environment linkages. For this purpose, one of the significant interventions is to improve institutional capacities and awareness amongst partners, stakeholders and target beneficiaries. This strategy aims at ensuring conservation by using information, communication, education, advocacy and capacity-building to involve people in activities. In order to deliver the communication and awareness initiatives in an efficient and effective manner, the Programme has strategized the process and procedures in this guideline document, titled "*The Indus Ecoregion Communication and Awareness Strategy*".

2.2 Purpose and Objectives of the C&A Strategy

The overall goal of the C&A Strategy is improved institutional capacity and awareness amongst stakeholders at different levels about sustainable environmental management of the Indus Ecoregion. Specific objectives of the strategy are to:

1. Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon natural resources;
2. Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits;
3. Influence relevant policies and practices to ensure the flow of the Indus River into the delta;
4. Create awareness among the stakeholders and local communities about deleterious anthropogenic practices that affect the natural resources of the Indus ecoregion;
5. Enhance stakeholders' understanding about Poverty-Environment linkages and their impacts on the natural environment and livelihoods of people;
6. Influence policy makers at local, provincial and federal levels for rational policy formulation with engagement of all key stakeholders in the policy making process; and
7. Enhance visibility of the Programme amongst general public, academia, scientific community, government and aid agencies, policy makers and environmental organisations.

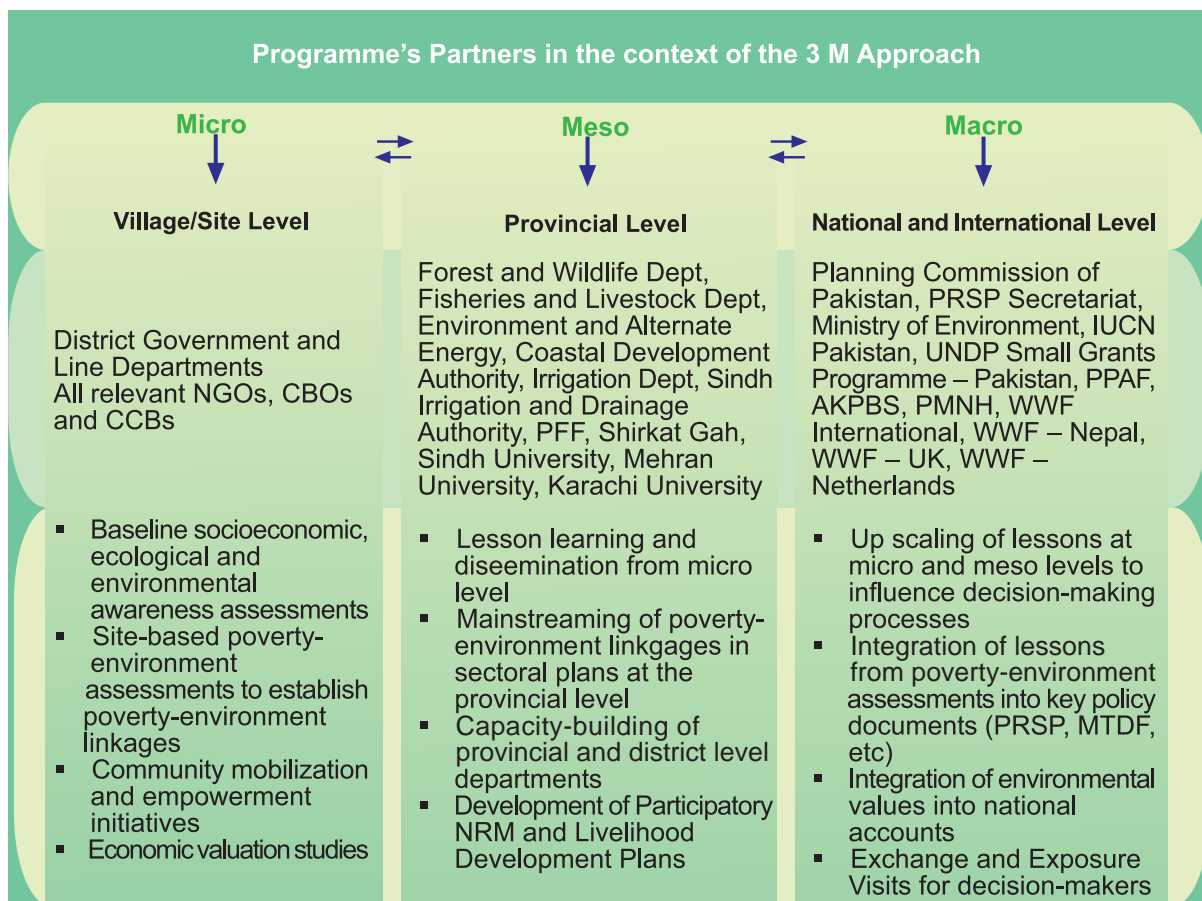
2.3 What does the C&A Strategy say?

Following the universal principle of "*awareness through facts and not fears*", the C&A strategy elaborates and provides guiding principles on the following aspects of the Programme:

- i. The Indus Ecoregion and associated natural resource issues that have been identified and prioritized;
- ii. The stakeholder and target audiences of the Indus ecoregion conservation Programme;
- iii. Effective and appropriate ways and means for communication and awareness raising;
- iv. Stakeholders and/or audience-focussed sub-strategies or outreach programmes ;
- v. Priority interventions for communications and awareness raising under the first five-year implementation phase of the Indus ecoregion Programme ;
- vi. Monitoring and Evaluation Framework to measure strategy performance and stakeholders' feedback for improvement and fine tuning of the communication and awareness components of the Programme.

2.4 Who is implementing this Strategy?

A consortium of stakeholders led by WWF - Pakistan implements the Indus Ecoregion Programme at the behest of the Planning and Development Department, Government of Sindh. The Communication and Awareness Strategy will be implemented by WWF - Pakistan's Indus For All Programme during the first implementation phase (2007-2012). Different stakeholders, identified in this strategy, will be engaged under different outreach programmes with clearly focussed and defined roles and responsibilities. The Ecoregion Programme under the Indus For All Programme has adapted the 3 M approach for stakeholders' engagement. Developed by the Macroeconomics Programme Office of WWF, the 3 M approach links changes at the local level (micro) with those at the sub-national (meso) and national levels (macro) in an effort to synchronise field-scale lessons and community aspirations with policy-level decisions.



2.5 Target Audiences of the Strategy

'Target audience' refers to the people and institutions that the C&A Strategy will directly or indirectly address to achieve the Programme's objectives through effective communications and awareness-raising programmes and other initiatives. In consultation with key stakeholders, the Programme has identified a comprehensive list of target audiences. However, this list is not exhaustive and can be modified if there are changes in the operations and scope of the strategy. The proposed target audience is listed below:

Macro Level

Government Organisations (GOs)

Federal Government

- Federal Cabinet
- Ministry of Environment
- Ministry of Food, Agriculture and Livestock
- Planning Commission of Pakistan
- Ministry of Water and Power
- Coastal Development Authority

Legislature

- Senate
- National Assembly (Sub committees/Standing Committee on Environment)

Non Governmental Organisations (NGOs)

- NGOs working for the environment
- NGOs working for poverty alleviation and good governance
- Advocacy-based NGOs and action groups
- Donors
- Corporate sector entities

Media

Electronic Media

- All TV channels

Print Media

- Newspapers
- Journals
- Columnists and writers

Radio

- FM and other channels

Academia and Scientific Community

- Universities, particularly in Sindh, as well as national and international ones
- Research institutes in Sindh and outside of Sindh
- Faculty members and research professionals

Meso Level

Government Organisations

Provincial Government

- Planning and Development Department
- Sindh Fisheries Department

- Sindh Food and Agriculture Department
- Sindh Forest Department
- Sindh Wildlife Department
- Sindh Environment Protection Agency (EPA)
- Sindh Irrigation and Drainage Authority
- Sindh Education Department
- District Governments

Law Enforcement Agencies

- Army
- Police
- Rangers

Non Governmental Organisations (NGOs)

- NGOs working for the environment and conservation of natural resources
- NGOs working for poverty alleviation and good governance
- Advocacy based NGOs and action groups
- NGOs working on human rights and water issues
- Corporate sector entities

Legislature

- Provincial Assembly
- District Council

Industries and businesses

- Agro-based Industries
- Oil and gas sector
- Tourism

Micro Level

Governmental Organisations (GOs)

- Village Councils
- Union Councils

Communities

- Farmers and landlords
- Fishermen
- Herdsmen
- Labourers
- Local Community Based Organisations (CBOs) and Citizen Community Boards (CCBs)
- Local politicians/political parties
- Religious leaders
- Notables, local political leaders
- Women

Schools and youth

- Teachers and Students
- Youth groups

2.6 Tools and Products

Tools and products are the ideal means of communication with target audiences to achieve the objectives of the strategy. These can be events, activities, material and other communication methods that disseminate messages to target audiences and promote environmental awareness. Specific tools and products have been selected for a specific target audience keeping in mind the applicability, availability and suitability under specific conditions. A list of various tools and products initially identified through field surveys and observations is given below:

Promotional	Media	Events	Educational	Traditional events
Banners, Posters, Wall charts Leaflets Stickers Brochures Badges Pamphlets Bags Caps/shirts Billboards Souvenirs Calendars Stationery items	Newspapers TV channels Radio Cable Network Internet Fact sheets Websites Newsletters	Meetings Workshops Seminars Exposure Visits Symposia Exhibition/ Expos Carnivals Road shows Fairs / Festivals Sports Advocacy walks	Art Quizzes Debates Essays Tableau Trainings Educational fairs Nature clubs Greening activities Nature camps Books Poetry	Drumbeat Mallakhra* Mallakhra is the traditional sport festival of Sindh, which is more like wrestling. Local festivals

*Mallakhra is the traditional sport festival of Sindh, which is more like wrestling.

“The more men know about nature, and the more they rely upon nature, the more agnostic and hopeless they become”

-O. A. Curtis

“What conservation education must build is an ethical underpinning for land economics and a universal curiosity to understand the land mechanism. Conservation may then follow”.

-Aldo Leopold

3. Implementation of the C&A Strategy

The implementation process will take place through various sub-strategies or outreach programmes, devised based on the following target audiences and or stakeholders:

- | | |
|--------------------------------------|----------------------|
| i. Government Organisations | ii. Legislators |
| iii. Civil Society Organisations | iv. Media Outreach |
| v. Academia and Scientific Community | vi. Schools Outreach |
| vii. Community and Religious Leaders | viii. Youth Outreach |
| ix. Business and Industry | |

The sub-strategies discuss certain facts about the stakeholders, e.g. their strengths, existence, trends and tendencies, level of education and sources of information. The expectations of the stakeholders from the Programme are also mentioned in the sub-strategies for each group of stakeholders, which needed to be adequately addressed by the Programme team to achieve the objectives.

Apart from the expected outcomes from the target audiences, the Programme team has also identified the dos and don'ts with specific considerations related to each group of stakeholders, serving as strategic guidelines for the field staff and management. Prioritized interventions have also been mentioned under each sub-strategy to be undertaken under the Indus For All Programme. These guidelines are based on field observations, practical experiences of the Programme staff and stakeholders' input during various consultative processes in developing this strategy document.

In addition, the sub-strategies provide sets of potential or possible indicative messages leading to calls for actions to achieve the objectives of the C&A Strategy. The messages have been identified and phrased according to the subject and requirements of the relevant issue. The Programme team understands the fact that the messages are dynamic and therefore, tend to change according to the situation, area and issue. The changes, however, must be in line with the objectives of the C&A Strategy and the objectives of the Indus For All Programme and, above all, WWF's global and national mission and objectives.

Sub-strategy 1: Government Organisations (GOs) Outreach Programme

Overview

The Government Organisations include regulatory bodies, line agencies and departments at both the macro and meso levels and devolved governance structures at the grassroots level. The main function of government organisations is policy formulation and implementation. The level of education in Government Organisations, however, varies from uneducated and semi-literate field personnel to highly educated specialists at the senior level. Sources of information in Government Organisations include official letters, newspapers, TV, radio, the internet, conferences, seminars, workshops, books and personal communication for educated senior level officials. Less educated government servants depend upon peers, colleagues and their seniors as sources of information. The senior government officials are usually aware of the issues in their professional domain but the response may be slow due to various reasons ranging from indifferent attitudes to lack of responsiveness and desired support from the concerned institutions.

Keeping in mind the regulatory role of Government Organisations and their sole proprietorship of the natural resources of the country, the Indus For All Programme team will adopt a logical approach, using mild language and maintaining respect for the hierarchical order while dealing with them. Experience with past projects and programmes has shown that rewards and awards for Government Officials are also helpful in motivating them to participate in activities. Awareness and capacity of government officers can be built through interventions such as exposure visits, training workshops, consultative meetings and engaging them in Programme activities.

Expected Outcomes

- ❑ A process for formulation of new rational policies by involving all the stakeholders initiated by GOs;
 - ❑ Visible change in attitudes and practices of GOs, from autocratic decision-making to participatory approaches;
 - ❑ Relevant GOs adopt new environment-friendly technologies in the field;
 - ❑ Professional capabilities of key staff in relevant Government Organisations enhanced through trainings;
- A research-oriented atmosphere in Government Organisations created.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon Natural Resources	Natural resources are limited, let's find alternatives of these resources	Explore alternatives of natural resources
Raise awareness among the stakeholders regarding the ownership of local communities over natural resources for better stewardship and maximum economic benefits	Good governance never happens without involving local people, let's involve them	Transfer of ownership to communities. Involve local communities in decision-making process
Influence the related policies and practices to ensure flow of Indus River into the delta	Let's Join hands to save resources for our future generations	MoUs with local communities
Create awareness among the stakeholders and local communities about deleterious anthropogenic activities that affect natural resources of the Indus ecoregion	Let's maintain flow of River Indus into the delta	Change in priorities in water distribution and management.
Enhance understanding of the stakeholders about Poverty Environment linkages and their impacts on environment and livelihoods	Take care of natural habitat that is home to life-sustaining biological diversity	Define boundaries of protected areas
Influence policy-makers at local, provincial and federal levels for rational policy formulation by involving all key stakeholders in policy-making process	Policies are always made for people, so make the policies that are people-friendly	More people-centred policies by government.

Prioritized Interventions

- ❑ Develop and distribute a poverty-environment manual by the year 2009.
- ❑ Organize four training workshops for District government officers on planning, implementation and monitoring of NRM programmes by the year 2009.
- ❑ Organize three training workshops for district government officers on Environmental Impact Assessment by the year 2009.
Organize 1-2 exposure visits for provincial and district government officials by the year 2009.

Sub-strategy 2: Legislators Outreach Programme

Overview

The political leadership in Sindh is comprised of various classes of society: middle, upper-middle and upper classes from the urban areas and feudal landlords from the rural areas. Their occupations are also diverse - agriculturists, lawyers, retired government servants, social workers and activists. The minimum requirement for becoming a legislator in the Provincial and National Assemblies and the Senate is graduation.

It has generally been observed that the majority of legislators have no scientific information about the environment or natural resources but they are all interested in improving the living conditions in their constituencies; therefore, a legislator is expected to have all kinds of information about development projects and schemes in his/her respective area. Most politicians and legislators in the country consider environment as an imposed agenda by donors and western countries and do not take it seriously. While communicating with legislators the Indus For All Programme team should ensure that proposed themes and messages do not offend local norms, ideologies, or religious or spiritual beliefs. The Programme staff should also remain impartial and respectful of everyone and should avoid showing their own affiliations with political ideologies, sectarian beliefs, or ideological doctrines. Continued interaction with elected public representatives has always proved to be positive and fruitful.

Politicians, especially legislators, expect solid measures for poverty reduction through programme interventions and sustainable natural resource models in their constituencies. They are likely to be optimistic about more employment opportunities for their voters and supporters but are likely to try and influence Programme staff. Past experience with similar projects suggests that legislators and politicians usually expect exposure visits and trips by the programme or projects.

Expected Outcomes

- ❑ Environmental and conservation issues highlighted at legislative fora;
- ❑ Poverty and Environment in Indus For All Programme's priority sites considered important at district, provincial and federal levels;
- ❑ Enabling policies developed and implemented to address poverty-environment issues in the ecoregion.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon Natural Resources	Better policies can reduce people's pressure on precious natural resources	Legislation to empower local communities for natural resource management
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits	People are the real custodians of the resources; let them be the stewards	Legislation to empower local communities for natural resource management
Influence related policies and practices to ensure flow of Indus River into the delta	Stopping water into the delta means impeding lives of more than one million people and losing the only occurring mangrove forest in the country	Water Accord 1991 adhered and implemented
Create awareness among stakeholders and local communities about deleterious anthropogenic activities that affect natural resources of the Indus ecoregion	Habitat destruction is a national loss	Environment-friendly development schemes for poverty reduction More policies for environmental care
Enhance stakeholders' understanding about Poverty Environment linkages and their impact on environment and livelihoods	Give respect to natural environment and expect reward	Policies made for Payment for Environmental Services
Influence policy makers at local, provincial and federal levels for rational policy formulation by involving all key stakeholders in policy-making process	Consider the views of the people who are the beneficiaries	Public consultations on different issues

Prioritized Interventions

- ❑ Organise exposure visits for national, provincial and district level public representatives and legislators to programme sites.

Sub-strategy 3: Civil Society Organisations' Outreach Programme

Overview

In rural areas of Sindh numerous NGOs and CSOs (Civil Society Organisations) are involved in institutional development, formulation and implementation of development schemes, capacity building and awareness raising initiatives. The overall goal of all grassroots level CSOs or NGOs is more or less the same, to strengthen and empower people for sustainable development.

The major source of information for NGOs is modern means of communication such as newspapers, TV, radio, magazines and the internet, but the NGOs also have the privilege of having access to additional sources of information and feedback in the form of community interaction, workshops, seminars, focus group discussions and consultations. NGOs are well aware of issues related to society and the environment. CSOs and NGOs will expect partnership funds and financial support from the Programme along with capacity building and experience sharing initiatives.

NGOs and civil society institutions are natural allies of the Indus For All Programme; therefore, the Programme staff should initiate joint activities for awareness-raising. The Indus For All Programme team should always appreciate the values and ideas of other CSOs and avoid criticism. The Programme team and other organizational staff should not over or under estimate CSOs/NGOs on the basis of their size, geographic coverage or presence, which may give a negative impression of the organization. Past experience tells us that presenting interventions as complementary to the goals and objectives of other NGOs and avoiding competition provides maximum comfort in building partnerships.

Expected Outcomes

- More NGOs share vision and information about addressing the P-E nexus in the ecoregion;
- Mobilization for environmental conservation among grassroots level communities initiated by other NGOs;
- NGOs extend support in development of information and resource material;
- Environmental awareness among stakeholders is promoted with the help of other NGOs;
- Coordination and cooperation mechanisms are established.

Objective wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource-use practices to reduce over-exploitation and increased dependence on natural resources	Let's work together to alleviate poverty Natural resources are not limitless; seek alternatives	Disseminate information and messages regarding sustainable utilisation of the Indus ecoregion's natural resources
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefit	Let's help communities raise their voice at decision-making fora Let's help communities understand that they are the stewards of natural resources	Mobilize and organize communities and create a sense of ownership of natural resources amongst them
Influence related policies and practices to ensure flow of Indus River into the delta	Flow of water into delta is not wastage of water	Launch advocacy campaigns to ensure flow of River Indus into the delta
Create awareness among stakeholders and local communities about deleterious anthropogenic activities that affect the Indus ecoregion's natural resources	All creatures have a right to live in their home (habitat). Let's give them that right	Conservation initiatives by NGOs

Enhance stakeholders' understanding about Poverty-Environment linkages and their impact on environment and livelihoods	Poverty is the root cause of resource degradation, let's remove it	Promote natural resource-based entrepreneurship by local people
Influence policy makers at local, provincial and federal levels for rational policy formulation by involving all key stakeholders in policy-making processes	People are at the centre of policy. Let's involve them	Advocacy, networking, information dissemination for policy review

- Prioritized Interventions**
- ❑ Develop and distribute a guide on environment-related legislation and civil rights by the year 2008.
 - ❑ Conduct six training workshops on proposal development and CCB formation, focusing on women's groups, by the year 2011.
 - ❑ Organize three training workshops for CBOs/LNGOs in monitoring natural resource use by the year 2009. Motivate and facilitate selected CSOs/NGOs to develop and implement two or three C&A action plans by incorporating the issue of the Indus ecoregion, by the year 2009.

Sub-strategy 4: Media Outreach Programme

Overview

Effective use of the media is key for communicating with a wider target audience to advocate and promote social, political and economic change. There are two main types of media: print and electronic, and its main purpose is to provide quality entertainment and information to the masses. The media carries equal influence both in rural and urban areas.

According to a survey conducted by Gallup International Pakistan for the Indus For All Programme, Pakistan Television (PTV) is the most watched TV channel in the Programme's focussed areas, followed by KTN and Geo News.

The Programme should have a clear and robust media policy, especially with mass media such as newspapers and TV news channels, and should develop and adopt a standard operating procedure. The Programme team should establish close liaison with the media during events, exposure visits, seminars, workshops and other events. The Programme team should also organize community interaction and exposure visits for the media to sites of environmental importance to raise awareness about people's problems and their conservation efforts. Another responsibility of the Programme team is to sensitize media personnel about the issues and make them realize their responsibilities in addition to providing adequate knowledge and information about the issues. The Indus For All Programme should also assist the media in establishing media or journalists' forum(s) to work on issues related to the environment in general and the Indus ecoregion in particular. Past experience also suggests that creating incentives or opportunities such as environmental journalism awards would be highly beneficial for promoting environment-sensitive media.

Expected Outcomes

- Environment and poverty-related issues of the Indus ecoregion regularly highlighted in the media;
- Stakeholders receive adequate information through the media;
- Changed attitude of the media towards environmental issues of the Indus ecoregion;
- Increased interaction between civil society and media agencies.

Objective wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon natural resources.	Let's explore, write and speak about the technology that is nature friendly	More coverage on practices and more research articles on new technologies promoting alternatives to natural resources
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits.	Conserve natural resources for our future generations	More articles and talks on the roles and responsibilities of the local and indigenous people in natural resource management
Influence related policies and practices to ensure flow of Indus River into the delta.	Water is life, conserve it	More media coverage in support of flow of water to the Indus Delta
Create awareness among stakeholders and local communities about deleterious anthropogenic activities that affect the natural resources of the Indus ecoregion	Let's be cautious about our growing ecological footprints	Coverage of hazardous economic activities in natural habitats (oil, gas, etc.)
Enhance stakeholders' understanding about Poverty-Environment linkages and their impact on environment and livelihoods	Let's write and speak for nature that nurtures humanity	Coverage on the links between livelihoods and the ecosystem
Influence policy makers at local, provincial and federal levels for rational policy formulation by involving key stakeholders in policy-making process	Common people should be the nucleus of our national policies	Natural resource-related policy discussion in the media More articles and discussions about multi-lateral Environmental Agreements

Prioritized Interventions

- Conduct three consultative workshops with media personnel by end of the year 2009.
- Arrange eight exposure visits for journalists to the Programme sites by the year 2010.
- Develop Indus Ecoregion Documentary by the first quarter of the year 2012
- Develop and launch Programme's website by the year 2007 and maintain through first implementation phase of the Programme.
- Develop 19 newsletters by the year 2012.
- Organize two talk shows on select television channels by the year 2010.

Sub-strategy 5: Academia Outreach Programme

Overview

The term 'academia' for the Indus For All Programme refers to all universities, colleges, technical and research institutes where environment and rural development are taught, practiced or at least used as subjects for study and research. The institutions may be at provincial, national and international levels. Some of the key public sector universities in Sindh include the Agriculture University Tando Jam, the University of Karachi, the University of Jamshoro and Mehran Engineering University. The term 'scientific community' refers to all practicing and retired professors, scientists and researchers.

In this context, the qualification level ranges from students at various levels to faculty who have MA, M.Sc., M. Phil or PhD degrees. Academic institutions have a lot of human resources but need material support (resource and communication material and equipment) and funding (fellowship for students and funding for courses). Apart from these resources, it is likely that academic institutions will expect more knowledge through the Indus For All Programme field activities and capacity building events such as trainings and workshops. Currently the academic and research institutions in the ecoregion are lagging behind in conducting robust research on P-E related topics. Opportunities for research to explore new avenues will be another area of interest for the academic and scientific communities.

Expected Outcomes

- Cooperation and coordination with various research or academic institutions enabled to conduct research and development activities on the Indus ecoregion;
- Promotion of scientific research on various topics related to the Indus ecoregion.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon natural resources	Academia is like the brain of a society. Use it for a better tomorrow Unique ecological processes of the Indus ecoregion provide exceptional research opportunities. Be a part of it	Event celebrations, seminars on national and international days Research on P-E linkages and their application to development projects

Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits	Traditional ecological knowledge and practices tell us how to live in harmony with nature	Integrate the Indus ecoregion concepts in teaching and research activities.
Influence policy makers at local, provincial and federal levels for rational policy formulation by involving all key stakeholders in policy making processes	Environmental conservation is the duty of responsible nations	Research on folk wisdom or indigenous knowledge related to natural resource management Raise awareness in society regarding MEAs

Prioritized Interventions

- Motivate and facilitate at least two academic and or research institutions to develop and implement research plans covering the Indus ecoregion by the year 2011.
- Develop and implement an internship programme by the end of the year 2011.

Sub-strategy 6: School Outreach Programme

Overview

Promoting environmental education in schools is a worthwhile investment in conservation in order to develop an informed and sensitized generation. According to a socio-economic survey conducted by the Indus For All Programme during 2006-07 the proportion of young people (up to age 15) accounts for about half the total population of the Programme sites. Thus, addressing schoolchildren means addressing a large segment of society. Moreover, the school is a very useful platform for disseminating messages in rural Sindh.

Textbooks and teachers are the primary sources of information for schoolchildren besides co-curricular or extra-curricular activities and tools such as TV, newspapers and the internet where the facilities are available. The current textbook curriculum lacks any special subject on environment; however, the textbooks contain some concepts of environmental education such as population, climate, biodiversity and environmental pollution. There is a need to train schoolteachers to adopt teaching-learning strategies to integrate the concepts of environment and the Indus ecoregion in existing school curricula.

The Programme will address Environmental Education (EE) in schools at three levels. Firstly, a cadre of master trainers in EE will be developed to promote EE in schools within the Programme area. These master trainers will act as extension workers and liaise closely with the Programme staff. Secondly, with the help of the master trainers, a considerable number of schoolteachers will be trained on integration of EE into the school curriculum. Thirdly, with the help of both the master trainers and the trained teachers, Nature Clubs or Environment Societies will be established in schools and colleges within the Programme areas. These clubs or societies will be facilitated to promote EE activities in schools.

The Programme staff should always keep in mind that the EE programme in schools cannot be at the cost of academic activities.

Any school-based EE activity should be planned with prior consent of the authorized official(s) of the education department or school administration. In order to run a smooth EE programme in schools within the Programme areas, the Programme should sign a Memorandum of Understanding with the Sindh Education and Literacy Department and other relevant educational organisations.

Expected outcomes

- ❑ Nature Clubs and environment societies have been established in at least 50% of the target schools in the Programme areas.
- ❑ At least 50% of the target schools in the Programme areas regularly incorporate EE activities into their action plans.
- ❑ At least 30% of the target schools in the Programme areas have become clean and green schools with an improved space and physical environment.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon natural resources.	We have only one Earth for all humans. Let's not destroy it We are inheriting less and less water from previous generations. Let us not do this with our future generations	Celebrate significant environment days in schools by involving communities and other stakeholders
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits	Our village is like our home. Let's keep our home clean	Organise village cleanliness campaigns
Influence relevant policies and practices to ensure flow of the Indus River into the delta	The Indus Delta is ecologically the most outstanding and the fifth largest delta in the world	Organize poster, quiz, essay and speech competitions about the Indus Delta
Create awareness among stakeholders and local communities about deleterious anthropogenic activities that affect natural resources in the Indus ecoregion	Help us to breathe in clean air by not cutting trees If you think you can serve nature, try not to use polythene bags	Plant trees, reuse or recycle waste material, organise school space improvement programmes
Enhance stakeholders' understanding about Poverty-Environment linkages and their impact on environment and livelihoods	Conserve natural resources; make your society prosperous	Organise nature camping in a forest, wetland or any other nature ecosystem and study human-nature interaction

Prioritized Interventions

- Train 60 master trainers (20 from each of the target districts) in environmental education by the end of the year 2008.
- Train at least 300 (100 from each target district) schoolteachers in environmental education by the year 2010.
- Establish 80 nature clubs/environment societies (20 from each site) by the year 2011.
- Conduct 10 nature study camps by the year 2011.
- Celebrate 28 significant environmental days by the year 2011.

Sub-strategy 7: Community and Religious Leaders Outreach Programme

Overview

Usually, communities are referred to as the people living inside the Programme's specific, geographically demarcated areas of operation. Communities are the major stakeholders and the primary beneficiaries of the Programme interventions. The local communities in the Programme areas are professionally and ethnically diverse. They are farmers, fishermen, herdsman, mat-makers, land owners, shopkeepers, hunters, government employees, daily-wage labourers; religious leaders; artisans; intellectuals; politicians, technicians; singers; poets, Syeds/Shahs (spiritual leaders), Sardars or Raees, etc. The level of education varies but the rural communities in the ecoregion are mostly illiterate.

The source of information in urban or semi urban areas is television (subject to availability). PTV is the most watched channel. Most people watch television in common places such as hotels and private residences. Other popular sources of information include radio, local newspapers, local leaders, hotels, social and religious gatherings, local NGOs, festivals and local activities where people interact with each other.

Religious and spiritual leaders are key figures in rural society along with feudalists and government servants. They also play an important role in information dissemination and opinion-creation in rural areas.

The Programme team should respect the community's opinion and should always maintain respect for local beliefs, customs and traditions. They should avoid blaming communities even if their views are not matching with that of the Programme. The Programme team should not pose a threat to their livelihood sources and must respect their customs, norms and practices. As a matter of policy, staff members should not generate expectations about the Programme among the communities by making false commitments.

Successful implementation and long-term sustainability of any conservation programme depends on full and active participation of stakeholders, particularly local communities. Participation requires sensitisation and a sense of ownership amongst local communities for their environment.

Expected Outcomes

- Community-based organisations or groups are formed and strengthened;
- Community members proactively participate in training seminars, workshops and other programme activities;
- Women's participation increases in Programme interventions;
- Conservation actions undertaken by the communities under the Indus For All Programme.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource-use practices to reduce over-exploitation and increased dependence upon natural resources	<p>God helps those who help themselves</p> <p>Like us, our future generations have a right to use the earth's resources; let us not deprive them of their right</p>	<p>Adopt and promote fuel efficient technologies and alternate sources of energy such as solar and wind energy.</p> <p>Use grazing lands according to their capacity.</p> <p>Reduce green wood cutting, plant more trees</p>
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits	<p>God created resources for us, we are the owners of these resources. Let us use them wisely</p>	<p>Mobilize traditional setups in support of NRM</p> <p>Be part of the decision making regarding NR use</p> <p>Raise your voices against resource exploitation</p>
Influence related policies and practices to ensure flow of the Indus River into the delta	<p>We are inhabitants of the Indus Delta, and we need water like other creatures, so let the water flow into the delta</p>	<p>Convey public opinion to decision making fora.</p>
Create awareness among stakeholders and local communities about deleterious anthropogenic activities that affect the natural resources of the Indus ecoregion	<p>Other living creatures are our fellow beings; give them their right to live respectably</p> <p>Respect nature and nature will respect you</p> <p>Excessive use of NRs is a sin and a crime</p> <p>“Stop over-fishing or fishing will be over”</p>	<p>Ban on poaching and hunting of wildlife</p> <p>Use grazing lands according to their capacity</p> <p>Reduce green wood cutting, plant more trees</p> <p>Reduce pollution and wasteful consumption of NRs</p> <p>Abide by the laws and cooperate with law enforcing agencies</p>
Enhance understanding of stakeholders about Poverty-Environment linkages and their impact on environment and livelihoods	<p>Protect the land that feeds us</p>	<p>Land use planning by government agencies and communities</p>

Prioritized Interventions

- ❑ Train at least 20 community activists in advocacy and public awareness by the year 2009.
- ❑ Arrange eight exposure visits (two visits per site) for the communities within the Programme sites by the end of the year 2010.
- ❑ Organize eight sensitization workshops (two visits per site) for resource users groups by the end of the year 2009.
- ❑ Organize 24 sensitization workshops (eight workshops per site) for local women on environmental health and hygiene by the end of the year 2011.
- ❑ Establish four Conservation Information Centres (one per site) by the end of the year 2010.
- ❑ Organize 24 consultative workshops (eight per site) with religious leaders to promote sermons on “Conservation and Islam” by the end of the year 2011
- ❑ Support 24 local festivals (eight per site) to disseminate conservation messages through theatre, puppet shows and other traditional communication practices by the end of the year 2011.

Sub-strategy 8: Youth Outreach Programme

Overview

The youth groups in the ecoregion can be divided into two categories; school or college going students and out-of-school youth. The latter category is comprised of unemployed and under employed people. School-going youth aim to secure a better future through education, but unemployed and out-of-school youth are often involved in activities such as sitting in hotels, watching movies, betting and spending money in unproductive ways. Sometimes those young people contribute to environmentally destructive practices such as harmful fishing techniques, deforestation and illegal hunting

The United Nations General Assembly defines ‘youth’ as those persons falling between the ages of 15 and 24 years (inclusive). This definition was made for International Youth Year, held around the world in 1985. All United Nations’ statistics on youth are based on this definition, as illustrated by the annual yearbooks of statistics published by the United Nations system on demography, education, employment and health.

The major sources of information for rural youth are newspapers, radio, TV, sporting events, festivals and other social gatherings. In rural areas male youth disseminate information to the whole village due to their frequent mobility to and from the villages. Female youth are usually confined to their homes or help elders with domestic chores or farming. In some communities, females also work as artisans, mat-makers, etc.

Youth in rural areas are not very aware of environmental or other social issues in their areas due to ignorance and low levels of education . They should be provided more information about the environment and natural resources and should be supported generously in undertaking activities. The Programme should appreciate their activities and encourage further involvement in conservation efforts. This can be done by providing training in environmental education and advocacy and organising youth greening activities such as plantation, solid waste disposal, nature camping, village cleanliness campaigns, etc., to make this target group an integral part of environmental awareness campaigns in the Programme areas.

Expected outcomes

- Enhanced understanding and concern for their environment created amongst youth;
- Active youth groups established to support conservation;
- Enhanced participation of youth in environment-supportive activities such as plantation, cleanliness campaigns, nature camping, celebration of environmental events, etc.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits	Protect mother earth that feeds us. Natural resources are created for us. Let us guard these	Campaigns against pesticides and deforestation for immediate benefits
Create awareness among the stakeholders and local communities about deleterious anthropogenic activities that affect natural resources of the Indus ecoregion	Save animals as they have the right to live like us Plant a tree, do a good deed	Plantation activities Campaigns to save wildlife
Enhance stakeholders' understanding about Poverty-Environment linkages and their impacts on environment and livelihoods	Wise use of natural resources lead to prosperity; let us play our role in conserving these resources	Advocacy walks and awareness-raising activities for saving habitats

Prioritized Interventions

- Organize two training workshops for youth groups in environmental education and advocacy by the year 2008
Conduct 20 youth greening activities (five at each site) to engage youth in awareness raising and conservation activities by the end of the year 2011

Sub-strategy 9: Business Sector Outreach Programme

Overview

Business and industry are the most vibrant sectors of the economy as they are driven by profits and financial interests. While this sector's priority concern is to maximize profits, businesses have also started catering to social and environmental concerns as part of their Corporate Social Responsibilities (CSR). Sources of information for this sector are newspapers, magazines, television, the internet, professional circles, business networks, trade unions and board rooms. Due to limited interaction with civil society, the business and industrial community has limited knowledge about the social and environmental issues facing the ecoregion. Engaging business entities in the ecoregion in environmental movements and social uplift has proved

a considerable challenge in the past, primarily due to their indifferent attitudes. However, the business and industry will be interested in this Programme due to its dependence upon the availability of natural resources and raw material. By working with the Indus For All Programme, businesses and industries will be able to enhance their knowledge about natural resources and will be able to look forward to a positive response from recipients (communities) to their CSR efforts. This strategy will greatly benefit the business sector since it may be able to identify extended investment opportunities in the Indus For All Programme's priority sites and will also earn a good reputation and goodwill for its products and services, for its work on environmental concerns.

The Programme should develop linkages between the business sector and the community and rather than imposing compulsions and obligations, the Programme team should sensitise and motivate industrialists. The business sector is very sensitive regarding pressure groups in the community; therefore, Programme staff should avoid instigating such groups and the Indus For All Programme team should facilitate dialogue whenever such incidents occur. As part of Programme interventions, select industries or business entities in the ecoregion should be engaged in organizing awareness campaigns on selected themes.

Expected outcomes

- Business sector and industries in the ecoregion are sensitized to local environmental concerns;
- Environmental standards in the production processes are adopted;
- Role of business and industry in conservation efforts is enhanced;
- Behaviour of the sector changes towards sustainable use of natural resources.

Objective-wise Key Messages

Objectives	Messages	Call for Action
Enhance awareness among stakeholders and partners about alternative resource use practices to reduce over-exploitation and increased dependence upon natural resources	Make technology environment-friendly and serve nature	Promote alternate sources of energy
Raise awareness among stakeholders regarding ownership of local communities over natural resources for better stewardship and maximum economic benefits	We all live on the same planet - let us equally share its profit and loss	Launch awareness campaigns for natural resource conservation
Enhance stakeholders' understanding about Poverty-Environment linkages and their impacts on environment and livelihoods	Always remember, nature pays back with the same coins Conserving nature is like serving humanity	Adhere to environmental standards Activities to conserve critical ecosystems as part of CSR initiatives
Create awareness among stakeholders and local communities about deleterious anthropogenic activities that affect the Indus ecoregion's natural resources	Nature conservation is our legal responsibility and moral obligation In the Indus Delta, every drop of water counts; let's avoid polluting it	Allocate resources for environmental rehabilitation and make operations environmentally sound

Prioritized Interventions

- ❑ Motivate and facilitate at least two businesses or industries in the Indus Ecoregion to develop and implement C&A action plans by incorporating the issues of the Indus Ecoregion by the end of the year 2010.

Sub-strategy 10: Resource and Awareness Material Development

The Indus For All Programme addresses a diverse range of audiences for its awareness raising and capacity building initiatives. For this purpose the Programme needs material that is persuasive and easy to understand and designed and developed to fulfil the awareness and training needs of all target groups. Therefore, the Programme will develop a variety of awareness and resource material on various themes for different target audiences. Awareness material should not only contain facts and figures, but also pictures, diagrams and references to help clarify various concepts.

All efforts to develop material should focus on ensuring that it is of optimal quality, culturally appropriate and socially acceptable, and incorporates local knowledge and wisdom. The material must be unambiguous and, suitable for wide dissemination, and should cater to the community's needs.

The Indus For All Programme's awareness and training material will also serve to fill the gaps in education and training material for nature conservation. The Programme will focus on developing material on a variety of topics such as environmental legislation and civil rights, poverty-environment linkages, co-management of natural resources, community participation, resource-use patterns, environmental health and hygiene, good governance, environmental education and advocacy.

A. Training Material and Education Modules for Use in Schools

Environmental education in schools is more than just conventional classroom teaching. It is interdisciplinary and its content has to be integrated into the school curriculum. While environmental education is not taught as a separate subject in schools, key concepts have been integrated into existing textbooks at various levels, thanks to the efforts of various provincial education departments, federal agencies and textbook boards. For the last two decades WWF – P has been striving hard to integrate environmental education into school curricula by providing training to teachers and developing customized modules and awareness raising material.

However, despite all these initiatives, more remains to be done. The Indus For All Programme intends to introduce a comprehensive package of environmental education in the schools within its Programme sites. Schoolteachers also need to be trained to impart environmental values to students. Since greater clarity and understanding will be achieved by providing additional explanatory material, the Programme intends to develop training material that will not only be used during teacher training workshops, but will also help them teach students effectively. Since conservation education demands instant action, educational modules that are developed for students will focus on local conservation problems and suggest ways for mitigation.

Prioritised Interventions

- Develop environmental education training manual for master trainers by the end of the year 2008.
- Develop environmental education kit for teachers by the end of the year 2009.
- Develop environmental education kit for students by the end of the year 2009.

B. Resource and Awareness Material for Use in Public Awareness and Trainings

One of the main thrusts of the Indus For All Programme is to raise public awareness on specific concepts and approaches for the ecoregion's conservation. Since the Indus Ecoregion Programme has a long-term vision, its goal is to develop an enabling environment for biodiversity conservation and poverty alleviation in the ecoregion. In order to develop strong public opinion in favour of ecoregion conservation, all stakeholders must develop a clear understanding of the various concepts, issues and approaches regarding ecoregion conservation to ensure behaviour change and positive action.

For this purpose the Programme will develop guidelines, manuals, explanatory material and analytical reports for specific target groups on themes such as biodiversity conservation, poverty-environment linkages, environmental legislation, participatory resource conservation, ecosystem management, environmental awareness and advocacy.

Well-designed print material with credible information, combined with relevant messages, slogans and graphics, can be a powerful tool for education and environmental awareness and can produce a lasting impact. In the Programme sites, strong visuals will have a greater impact compared to written materials as the local communities are mostly illiterate.

Material will be developed in the form of publications such as manuals, reports, fact sheets, newsletters and guides and promotional items like posters, wall charts, brochures, pamphlets, calendars, wall clocks, mugs, shoulder bags, souvenirs, banners and signboards. Material will be distributed to all the key stakeholders and will also be displayed at prominent public places. Fact sheets will also be disseminated through print media such as newspapers and magazines. The material will also be used to raise awareness about the Indus ecoregion and promote the Indus For All Programme in other parts of Pakistan and in international fora. Most publications will be available on the Programme's and other websites for wider dissemination.

Awareness raising and resource material are required to help build conservation ethics amongst the stakeholders and to increase their capacity to undertake conservation activities. Over the last two decades, WWF – P has developed a variety of useful material for environmental awareness raising. Under the Indus For All Programme a good mix of material should be developed that can be used by various stakeholders at different levels. Local issues should be analysed prior to producing and disseminating material to ensure that they are relevant.

Prioritized Interventions

- Develop and disseminate a guide on environment related legislations and civil rights by the end of the year 2008.
- Develop and disseminate a poverty-environment manual by the end of the year 2009 to help stakeholders understand the poverty-environment linkages in the Indus ecoregion.
- Document and disseminate traditional ecological knowledge by the end of the year 2008.
- Design, develop and disseminate 16 fact sheets by the year 2011.
- Develop and disseminate a manual for women's awareness on environmental health and hygiene issues by the end of the year 2007.
- Develop and disseminate a training manual for youth groups on environmental education and advocacy by the end of the year 2007.
- Reproduce the book on "Conservation and Islam" in Sindhi by the end of the year 2008.
- Develop and disseminate an NRM user guide for the Indus Ecoregion by the end of the year 2010.
- Develop and disseminate a floral guidebook for the Indus ecoregion by the end of the year 2009.
- Develop and disseminate a biodiversity guidebook for the Indus ecoregion by the end of the year 2011.
- Design, develop and install four billboards (one at each site) by the end of the year 2008.
- Design, develop and disseminate 12-16 posters/wall charts by the year 2012.
- Design, develop and disseminate 10-12 brochures by the year 2012
- Develop one set of promotional material each year by the year 2012.
- Develop and disseminate four flip chart presentations by the year 2009.

"What conservation education must build is an ethical underpinning for land economics and a universal curiosity to understand the land mechanism. Conservation may then follow?"

-Aldo Leopold

4. Recommendations

- I. This strategy should be a living document that is revised as required by the Programme management. All key stakeholders should be involved in the revision process and should have an understanding of the document and its participatory development process which is a sort of “Action Research”;
- II. Communication according to a person’s level of understanding is a significant challenge, and has become more pronounced in today’s communication age. On one hand, the fastest pace of technology has brought about a revolution in communication by converting the world into a global village and on the other hand, 75 per cent of the population in our villages still has very limited access to conventional communication tools. In case of the Indus For All Programme, this challenge is vital because the primary beneficiaries i.e. the communities of the Programme belong to rural parts of the country that have little or no access to modern sources of information or entertainment. Therefore, the doors for research and development must be kept open and more innovative communication methods must be discovered so that the rural population can be reached more effectively. Once discovered, the new methods and approaches may also be replicated in other areas so that the entire population can benefit;
- III. There are certain tools, events, target groups and messages common to stakeholders at all levels (Macro, Meso and Micro), site offices, areas and sectors. Therefore, an approach whereby processes and products are standardised may be adopted in applying commonalities, which will be both cost-effective and time saving for the Programme. For instance, the same procedure or format can be applied to workshops, seminars, and conferences organised by the PMU and the four implementation units; the size and pattern of banners, stickers, pamphlets and other tools can be uniform as well. Similarly, theatres, rallies and walks can also be organized in a unified manner by all the offices and the Programme staff. Therefore, tools and events may be designed by developing Standard Operating Procedures (SOPs) with the input and contribution of the entire Programme staff so that the brand image of the Programme and the organization (WWF) can be maintained and promoted;
- IV. A number of communication messages, slogans and tools have been identified by Programme staff during the formulation of the C&A Strategy. However, communication messages are constantly changing in line with changes in needs and priorities and as a result, the messages and slogans used will also change accordingly. Therefore, there must be an open-door policy for new messages and tools to be incorporated in the Communication and Awareness Strategy with a clearly defined process of approval and concurrent procedures for standardization of communication.

“The conservationist’s most important task, if we are to save the earth, is to educate”

-Peter Scott

5. Monitoring, Evaluation and Feedback Framework

Expected Outcomes (Stakeholder-wise)	Objectively Verifiable Indicators (OVIs)	Sources of Verification (SOVs)	Risk / Assumptions
Government Organisations' Outreach Programme			
A process for formulation of new rational policies by involving all the stakeholders initiated by GOs.	Number of consultative meetings for review/formulation of policies held with stakeholders	Minutes of meetings; proceedings	Government remains committed to involve stakeholders in formulation of new policies
Change in the attitudes and practices of GOs from autocratic decision making to participatory approach.	Number of joint committees with Government Departments formed	Notifications/orders	Government remains committed to devolve authorities to grassroots level
Relevant GOs adopt new environment-friendly technologies.	Number of initiatives involving environment-friendly technologies	Photographs/Presence of equipment	Government remains committed to adopt new technologies
Professional capabilities of key stakeholders enhanced through trainings.	Number of staff attending capacity building initiatives	List of participants Training Reports	Appropriate and relevant staff members have been nominated by GOs for trainings
Research-oriented atmosphere in Government Organisations created.	Number of research activities undertaken by Government Organisations	Research reports/publications	Government remains committed for research
Legislators Outreach Programme			
Environmental and conservation issues highlighted at legislative fora.	Number of issues highlighted at various fora	Newspaper clippings Minutes of Meetings Notifications	Political atmosphere remains conducive
Poverty-Environment linkages in the Indus For All Programme's priority sites considered important at District, Provincial and Federal levels.	Number of fora held to highlight issues Number of legislations addressing P&E issues passed	Notifications/proceedings	Government remains committed to alleviate poverty and improve the environment
Enabling policies developed and implemented to address the poverty-environment issues in the ecoregion	Number of policies approved or initiated	Policy notifications	Political situation of the country remains conducive

Civil Society Organisations' Outreach Programme			
More CSOs shared vision and information about addressing P-E nexus in the ecoregion.	Number of joint action plans developed and implemented by NGOs or CSOs	Correspondence, record of CSOs	NGOs and civil society organisations are committed to address the P&E issues
Mobilization for environmental conservation among the grassroots-level communities initiated by other NGOs/CSOs.	Number of new communities participating in the programme	Records of NGOs/CSOs and correspondence	Natural resource conservation initiatives remain priority of the local communities
CSOs extended support in development of information and resource material.	Number of information material jointly developed	Resource and awareness raising material	CSOs willing to share the cost and resources
Environmental awareness among stakeholders promoted with the help of other CSOs.	Number of NGOs/CSOs organising awareness raising and advocacy campaigns focussing on the issues of the Indus ecoregions	Records of stakeholders	CSOs remain supportive to the ecoregion conservation agenda
Coordination and cooperation mechanisms established.	Number of fora and committees formed and operational	Correspondence and activity reports	Clash of interest does not hamper working relations with CSOs
Media Outreach Programme			
The environment and poverty-related issues of the Indus ecoregion are regularly highlighted in the media.	Number of reports, articles and documentaries published and/or broadcasted by the media	Archives of news clippings, articles and video documentaries (both print and electronic)	Media remains supportive to NGOs and environmental issues
Stakeholders receive adequate information through media.	Number of P-E issues highlighted by the media	Archives of news clippings, articles and video documentaries (both print and electronic)	Media takes interest in research and investigative journalism
Increased interaction between civil society and media agencies on environmental topics.	Number of events and reports by the Programme and its stakeholders attended and highlighted by the media	Programme's periodic progress reports	Working relationship between NGOs and media remains normal

Academia Outreach Programme			
Cooperation and coordination with various research or academic institutions enhanced for research and development activities on the Indus ecoregion.	Number of academic and research institutions engaged in conducting research on the Indus ecoregion	MoUs or agreements with the institutions	Universities and research institutions remain consistent in conducting research on conservation-related themes
Scientific research on various topics related to the Indus ecoregion promoted.	Number of research reports or articles	Publications and reports	Universities and research institutions remain consistent in conducting research on conservation-related themes
School Outreach Programme			
Nature clubs and environment societies have been established in at least 50% of the target schools of the Programme areas.	Number of nature clubs or environmental societies established in the ecoregion	Nature club/environment society formation reports	Government education department and other education organisations are receptive to integration of EE activities in schools curricula.
At least 50% of the target schools in the Programme areas regularly incorporate EE activities in their action plans.	Number of schools developing and implementing EE action plans	Schools assessment reports	Government education department and other education organisations are receptive to integration of EE activities in schools curricula.
At least 20% of the target schools in the Programme areas have become clean and green schools with an improved space and physical environment.	Number of schools implementing school space improvement programmes	School assessment reports	Appropriate space is available in schools to carry out greening activities
Community and Religious leaders Outreach Programme			
Community-based organisations or groups in support of conservation are formed and strengthened.	Number of community-based organisations formed	CBO formation reports and MoUs	Communities are willing to organise themselves
Community members proactively participate in trainings, seminars/ workshops and other programme activities.	Number of community members attending programme activities	Activity reports	CBO representatives proactively work to nominate suitable people for programme activities

Women's participation increased in Programme's interventions.	Number of female CBOs formed Number of women participating in the Programme's interventions	Activity reports, photographs	Women are willing to participate. Cultural barriers do not hamper women's participation
Conservation actions undertaken by the communities under the Indus For All Programme.	Number of initiatives undertaken by the community	Activity reports, photographs	Community is willing to undertake activities
Youth Outreach Programme			
Enhanced understanding and a caring attitude towards their environment created amongst youth.	Number of youth groups and individuals proactively engaged in environment-related activities	Activity reports Incorporation record	Youth is willing to participate in conservation activities
Youth groups in support of conservation established and activated.	Number of youth groups formed	Activity reports,	Youth is willing to participate in conservation activities
Enhanced participation of youth in environment-supportive activities such as plantation, cleanliness campaigns, nature camping, celebration of environmental events, etc.	Number of activities undertaken by youth groups	photographs, media coverage	Youth is willing to participate in conservation activities

Business Sector Outreach Programme			
The business sector and the industries in the ecoregion are sensitised to local environmental concerns.	Number of businesses or industries engaged in promoting environmental awareness in the ecoregion	Action plans, MoUs	Industry and business is willing to be non polluting
Environmental standards in the production processes adopted.	Number of industries that have adopted environmental standards	Certifications	Business sector is willing to adopt environmental standards
Share of business and industry in conservation efforts enhanced.	Number of businesses or industries allocating a substantial part of their CSR for improving the environmental conditions in the ecoregion	Conservation projects/activities undertaken, CSR reports	Business sector is sensitive to environmental issues
Behaviour of the sector changes towards sustainable use of natural resources.	Number of businesses or industries engaged in promoting cleaner production mechanisms	MoUs, certifications, commitments	

“We have seen a change in basic approach from the day when government was a referee among competing resource users to a day when government must be a trustee of the environment for all the people”.

-Laurence Rockefeller

6. References

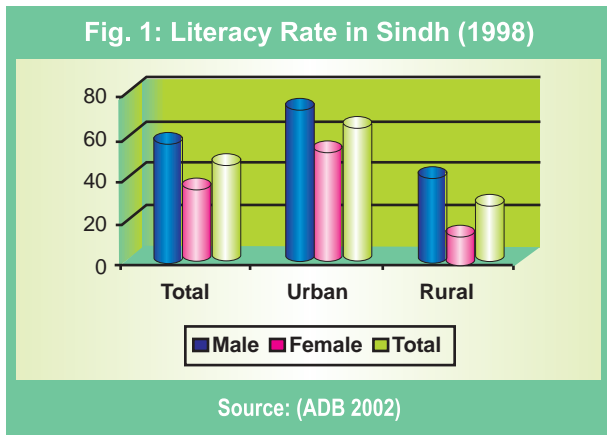
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Annexure – I Situational Analysis

Sindh, where the Indus Ecoregion lies, has historically been a melting pot for great civilizations and cultures such as the Indus Valley Civilization and has maintained its characteristics even today. The second-largest province of Pakistan in terms of population (23 per cent) and has a high ratio of urban settlements (52 per cent), the province of Sindh contributes 79 per cent

of Pakistan's overall revenue. Rural Sindh is characterized by highly unequal distribution of land holdings leading to a high level of inequity in income distribution as only 33 per cent of land consists of small farms. (ADB, 2002)

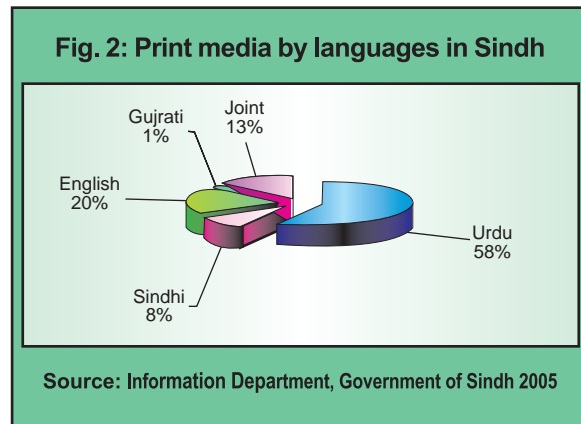
According to secondary data available through national and international agencies, the level of human development in Sindh is currently very low. Although the overall literacy rate in Sindh according to the 1998 census is at 51 per cent and is higher than the national average of 45 per cent, the literacy rate for rural areas in Sindh is only 35 percent, a little below the national average of 36 per cent (ADB, 2002).



Infant mortality in Sindh was recorded in 1999 as 95 per 1000 live births, compared to a national average of 89, while the percentage of married women using family planning methods was only 7 per cent overall, compared to a national average of 16 per cent (ADB, 2002).

As far as the rural social infrastructure is concerned, the situation in rural Sindh is not very encouraging as twenty six percent of the rural population in the province depends on unsafe sources of drinking water such as dug wells, rivers, canals or streams, compared to hand pumps or taps in the Punjab where only 6 percent of the rural population relies on wells or surface water sources (ADB, 2002).

Sindh is home to a huge number of publications, conservatively estimated at 89 dailies, 93 weeklies and 220 monthlies.



The linguistic division of the print media is given in Figure 2.

Table 1: Linguistic Division of the Print Media in Sindh

Language	Number of Publications	Language	Number of Publications	Language	Number of Publications
Daily Newspapers		Weekly Publications		Monthly Publications	
Urdu	48	Urdu	60	Urdu	126
Sindhi	20	Sindhi	6	Sindhi	7
English	14	English	8	English	57
Gujrati	1	Seraiki	1	Gujrati	1
Joint (Urdu, Sindhi and English)	6	Joint (Urdu, Sindhi and English)	18	Joint (Urdu, Sindhi and English)	29
Total	89	Total	93	Total	220
Source: Information Department, Government of Sindh, 2005.					

District Nawabshah

The total area of Nawabshah is 4,502 sq km with a population of 1,071,533. The population density is 238 people per sq km. The urban population is 26 per cent and the annual population growth rate is 1.63 per cent, according to the 1998 census.

Nawabshah ranks third after Karachi and Hyderabad in overall development and fourth in human health facilities such as doctors, nurses, hospitals and beds available per one thousand people. The district ranks ninth in education based on aggregate indicators of literacy and enrolment for the urban and rural population. However, this ranking does not apply equally to all parts of the district because the skill/educational levels of people and/or their political or social standing is weaker in the rural areas as compared to the urban population. For example, in Nangar Chandio village, there is only one graduate among its male population, and three intermediate and four matriculation-pass individuals. Only one female has completed education at the intermediate level. Since the two primary schools in the village are closed according to Shirkat Gah's survey team (IFAP 2007), this is not surprising. Nawabshah has a total of 2,148 Government Primary schools including 317 girls' schools and 819 co-ed schools. The total enrolment in the schools is 133,290 with 3,950 teachers at the primary level. The overall number of schools from the primary to the secondary level is 2,284 with the following gender wise division (SEMIS 2003-4).

Out of the 2,148 total schools, a total of 366 schools are reportedly closed in the district due to known and unknown reasons of lack of political will and inefficiency of the department. Out of the 366 closed schools 98 per cent (357) are located in rural areas which clearly give a poor picture of rural Sindh in terms of access to education. Girls' enrolment at the school level is 32 per cent of total enrolment with a drastic decrease from the lower to upper classes and grades in school. (SEMIS, 2003-4)

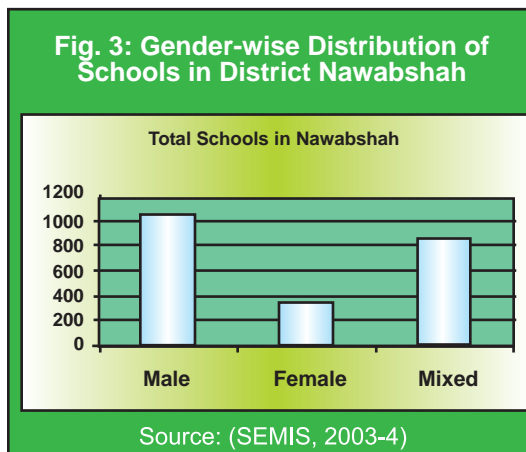


Table 2: Education and Teachers in Sakrand and Nawabshah

Location	Schools				Enrolment			Teachers		
	Boys	Girls	Mixed	Total	Boys	Girls	Total	Male	Female	Total
Sakrand	266	132	191	589	28091	13310	41401	1130	295	1425
Nawabshah	1054	352	868	2274	107729	49837	157566	4059	1100	5159

Source: (SEMIS, 2003-4)

Sakrand is one of the three Talukas (sub-districts) of Nawabshah District where the Pai forest site of the Indus For All Programme is located. A Taluka is spread over an area of 1,394 km (25 per cent of the total area of Nawabshah district) and hosts a population of 269,860 people which is almost 20 per cent of the total population of Nawabshah District. Out of the total population, 90% lives in rural areas as per the 1998 census report.

Table 3: Education and Teachers in Sanghar District

Location	Schools				Enrolment			Teachers		
	Boys	Girl	Mixed	Total	Boys	Girls	Total	Male	Female	Total
Tehsil Sanghar	394	82	170	646	25655	10171	35826	1687	484	2171
District Sanghar	1389	394	1497	3280	131158	58587	189745	8098	1787	9885

Source: (SEMIS 2003-4)

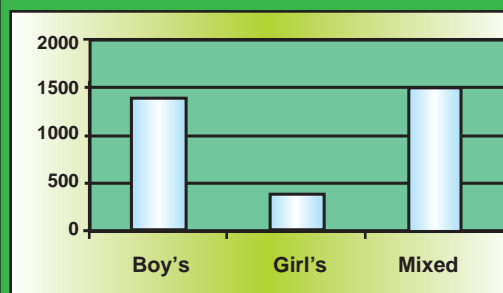
District Sanghar

Sanghar is the one of the six Talukas in District Sanghar. The total area of the Taluka is 2118 sq. km (16 percent of the district) with a population of 264,882 people (15 per cent of the district Sanghar), out of which 77 percent live in rural areas. (District Government Sanghar)

There are 646 schools in Taluka Sanghar with a distribution as shown in Figure 4.

The overall literacy ratio of the district is 34 percent. Out of this literate population, only a few people read English newspapers especially Daily Dawn and The News; but most people read daily Jang and UMAT with Sindhi Newspapers such as Ibrat, Kawash and Koshah. There are 300 mosques in the area where men usually gather five times a day for prayers. Traditionally, people exchange information at night gatherings, locally called Mach Katchery.

Fig: 4 School by Gender

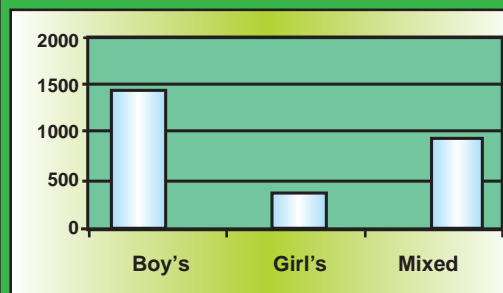


Source: (SEMIS, 2003-4)

District Thatta

The total area of district Thatta is 17,355 sq. km with a total population of 1.14 million people out of which 90 percent live in rural areas and have an average household size of five individuals per household. Based on the ranking by the District Government Khairpur, the district stands at 9, second-last before Tharparker. When ranked on the 1-16 index for the most to the least developed districts, Thatta stands at fifteenth position after Tharparker in overall ranking; tenth in availability of health facilities, fourteenth in education, and fifteenth in housing. The total number of schools in the district is 2,754, out of which boys' schools are 1,434, girls' schools are 347 and 973 are mixed schools.

Fig: 5 School by Gender in Thatta



Source: (SEMIS, 2003-4)

Enrolment in schools recorded by SEMIS is 138,908 out of which boys are 92,047 (66 percent) and girls are 46,861 (34 percent). There are four colleges: one intermediate and one degree education college for girls; one degree college for boys and one degree college that is co-ed. No colleges were reported for boys at the intermediate level and no institutions at the post-graduate level for either boys or girls. Of the above-mentioned schools 1,043 (514 boys and 89 girls) schools were found closed, out of which 1,027 were in rural areas. The total number of schools and enrolment by gender and by the urban-rural divide is shown in Figure 5.

One of the 9 Talukas in district Thatta is Keti Bunder with a total area of 771 sq Kms (4 percent of the area of Thatta district). The total population of this Taluka is 25,700 and out of this, 91 percent live in rural areas with an average house hold size of five people per house.

Education and Schools in Keti Bunder

Area	Schools				Enrolment			Teachers		
	Boys	Girls	Mixed	Total	Boys	Girls	Total	Male	Female	Total
Keti Bunder	44	3	5	52	942	314	1256	51	1	52
Tehsil Thatta	254	100	244	598	24586	14298	38884	1120	371	1491
District Thatta	1054	352	868	2274	107729	49837	157566	4059	1100	5159

Source: (SEMIS 2003-4)

Environmental Education aims to:

- ❑ Provide opportunities to acquire knowledge, values, attitudes, commitment and skills needed to protect and improve environment;
- ❑ Encourage students to examine and interpret the environment from a variety of perspectives- physical, biological, geographical, sociological, economic, political, technological, historical, aesthetic, ethical and spiritual;
- ❑ Arouse students' awareness and curiosity about the environment and encourage active participation in resolving environmental problems;

Environmental education can be thought as comprising three linked components:

- Education about the environment (knowledge).
- Education for the environment (values, attitudes, positive actions)
- Education in or through the environment (a source).

WWF-UK, 1995

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