Federal Republic of Nigeria

Niger Delta Regional Development Master Plan

CHAPTER 4

INTEGRATED APPROACH TO PLANNING FOR THE NIGER DELTA REGION

“...The best development strategy for the Niger Delta Region is one based on a balance between rural and urban, between environment and economic development...”

-NDRDMP

Chapter 4
Integrated Approach to Planning

4. Introduction

This section describes a future scenario as it may be affected by the Master Plan. It briefly reviews a number of alternative scenarios before focusing on an integrated development scenario. The scenario is described as a process of change, influenced by planned interventions that make up the central themes of the Plan economic development, human and community needs, the environment, and physical, human and institutional resources. The rationale for the interventions is explained as the scenario unfolds, and their spatial distribution is outlined in the final section of this part of the Master Plan document.

4.1 The Context

4.1.1 Conditions in the Niger Delta Region

The starting point for any scenario is the present. The introductory parts of this Master Plan include a detailed description of the Niger Delta Region. In brief, it is worth restating that the population of the region is approximately. 27.1million people (2002 figures). Of the total number of people in the Niger Delta some 20.2 million or 75% live in rural settlements and the rest in urban centres. The land is endowed with rich natural resources high quality crude oil, solid minerals, agricultural land capable of growing diverse crops, and vast fishing waters. The region hugs a long coast with many ports whose role has diminished from that in the nineteenth and twentieth centuries but remains important for the loading of goods for export, particularly the products of the oil industry. The potential for the revitalisation of the Region's trading status is real with a large and attractive domestic market for a variety of goods and services within the region, in Nigeria and in neighbouring countries.

The Region has a strong human resource base. By the mid-twentieth century southern Nigeria had attained relatively higher levels of social and educational services. While the quality of the service base has been severely eroded its population still comprises strong local communities and a significant proportion of well-educated young people (43.3% attend primary schools and 13.5% attend universities), many with high levels of expertise and commitment to the future of the region.

The paradox is that the Niger Delta Region is also one of the poorest parts of the developing world, and getting poorer. Per capita income is very low {66% of the population earn less than N10,000 (approx. US$75) per month and 76.6% earn less than N20,000}. The incidence of poverty is very high with over 70%, living at subsistence level in rural areas. Life expectancy in the region is low, 46.8 years, and is even lower in some of the more remote wetland areas where access to health care is difficult. Infant and child mortality is particularly high (20% die by the age of 5). This pernicious cycle includes a high degree of adult morbidity emanating from a wide variety of diseases that undermine individual employment and initiative. The quality of life is further affected by social unrest and threats to peaceful coexistence among ethnic groups, particularly in the core Niger Delta.

What is responsible for this status quo? 25 sector studies, ranging from demography through to financial instruments, and research into key topics such as community development and governance, by independent consultants, have explored the reasons for this seriously disadvantaged position of the Region (see Volume 2 'Sector and Key Topic Studies'). Their independent analyses of existing problems and their causes highlight a remarkable degree of agreement on the root causes that have led to the Region's deterioration over the past five decades. Essentially, the living standards of the vast majority of people are not improving since economic enterprise and development are deterred or not progressing quickly due to all the factors discussed in the opening parts of this report

4.2 The Master Plan The Overarching Vision

The vision running through all aspects of the Master Plan, is to improve the quality of life of the Niger Delta people, with particular attention to those with greatest need and the most vulnerable. The vision embraces the long-term aspirations of the people of the Niger Delta, and indeed of the nation regarding the region, which was well captured in President Olusegun Obasanjo's address to the inaugural meeting of the Governing Board of the Niger Delta Development Commission (NDDC) in December 2001

> '…to bring …sustainable and even development; to establish a region that is economically prosperous, socially stable, ecologically regenerative and politically peaceful…'

The vision running through all aspects of the Master Plan, is to improve the quality of life of the Niger Delta people, with particular attention to those with greatest need and the most vulnerable.

This Master Plan directly takes on this challenge that the Region which hitherto was underdeveloped, very poor and turbulent, should become Africa's most prosperous, most peaceful and most pleasant one within the national context guiding Nigeria to becoming Africa's strongest economy and a major player in the global economy'. This requires coordinated action of various stakeholders in the private and public sectors, the NGO sector as well as the international donor community. This vision can only be achieved by close collaboration and partnership between the region's States, Local Government Areas, and other stakeholders. The Plan therefore contains goals, policies and guidelines for such action that would facilitate attainment of these aspirations of the Niger Delta people and the nation at large.

4.3 Development Scenarios for the Region

Public consultations during the planning period of the Master Plan revealed deep concern about the social implications - a future with increasing tension between disenfranchised groups and their perceived sources of problems:

Six scenarios have been considered for the Niger Delta Region in the course of preparation of the Master Plan, culminating in the decision to adopt a balanced, integrated scenario. The six scenarios examined were:

- **A "Business as Usual" scenario**
- **A "Services based"** scenario
- **A "Rural Emphasis** " scenario
- **An "Urban & Industrial Emphasis** " scenario
- **An "Environment First**" scenario
- **A "Balanced and Integrated**" scenario, on the principles of fairness and effectiveness

While all scenarios start from the same existing conditions and trends, they may vary if different interventions are planned, if different assumptions are made about the rate of implementation and about impacts, or if different assumptions are made about external influences that are outside the control or influence of the stakeholders in the Niger Delta Region.

4.3.1 The "Business as Usual" Scenario

This would depict the future as it may unfold without a planned development strategy for the region. Although normally referred to as "do nothing", in practice it would mean "business as usual", continuing existing activities and un-coordinated initiatives by the Federal Government, the States, the private sector and oil companies, and a host of non governmental organisations.

Chapter 1 of the Mater Plan highlights very substantial deficiencies in existing quality of life in both the rural and the urban areas. Ill health and high rates of child mortality, poor housing conditions, poor standards and maintenance of essential utilities and equipment these and many more conditions are associated with poor economic performance and low income. The trend over the past 20 years has been of increased poverty. In practice "Business as Usual" will therefore continue to deter economic enterprise from greater utilisation of the region's abundant resources.

At the same time natural growth (births minus deaths) will increase the population by approximately 33% in 10 years. Without fresh enterprise and without major investment in public infrastructure the meagre employment and inadequate public services will be spread even more thinly. The result would be much greater poverty, ill health and suffering. Those with higher capability and greater means are likely to migrate to other regions or countries, leaving behind those incapable to move. When this happens, the area would be populated by unproductive people, which would further aggravate the poverty indices characterizing the region.

Public consultations during the planning period of the Master Plan revealed deep concern about the social implications - a future with increasing tension between disenfranchised groups and their perceived sources of problems: the oil companies, corrupt government, the wealthier sections of the population. Equally serious were the concerns about the spread of malaria, HIV/AIDs, and the use of hard drugs, which in combination with hard feelings harboured by the disenfranchised, would lead to increasing violence and crime. Differences between ethnic groups may then become the "legitimising" mantle for lawlessness, causing further disturbances, such as are seen in other parts of Nigeria and the world.

This scenario is not acceptable to the people of the Niger Delta Region. It cannot be entertained by any level of Government, nor by the private sector or other active stakeholders.

4.3.2 The "Services-Based" Scenario

A considerable amount of information is available about the current state of affairs regarding human needs of the region's population including health, housing, education, security and environment. Analysis of that information for different parts of the region shows various degrees of

deficiency both in human welfare indicators (e.g. ill health) and in the level of public services that are supposed to improve human welfare (e.g. the number of doctors, hospital beds).

One potentially attractive scenario appeared to be the meeting of human needs by providing a uniformly high standard of community services in centrally located settlements, for their surrounding population. The standards according to this scenario could be uniform welfare benchmarks, set to meet certain national or international standards. Another proposition was to set a hierarchy of both public and commercial service levels related to the size of settlements in line with 'Central Place Theory'. The designated services for each level of the hierarchy would be applied uniformly to all settlements whose size (including its hinterland population) falls within that level of the hierarchy. An analysis of settlements in the Niger Delta Region indicate very few whose population exceeded 1 million. The vast majority of settlements in the region are small with fewer than 1000 inhabitants: out of the total number 13,321,settlements; 7,686 (58%) fall into this category; 4,781(nearly 40%) are settlements between 1000-5000 people, while 764 (6%) are settlements of 5,000-20,000 people, and 98 settlements (just under 1%) have over 20,000. The suggestion that the service standards of, say, settlements with population sizes between 15,000 - 20,000 people can be provided with uniform services, within a realistic and feasible time-scale is questionable. There may be economic, social or locational reasons that differentiate between appropriate service levels in towns of similar sizes, and 'one size fits all' may discourage the pursuit of development in some towns while overburdening others.

Considering the low levels of economic production and low earnings in most parts of the Niger Delta, the build up of services and their on-going operation would have to be financed by Government and external sources, demanding massive funding. The likely scenario is that the necessary funding, including ongoing operation and maintenance costs, will not be available. Available resources will be distributed thinly between all the settlements, having little impact on any of them. The absence of focus on economic development in that scenario suggests that local sources of finance from taxation or by charging fees for the use of services will not be practical. Moreover, dependency on external injections of capital funds cannot be relied upon. In the absence of funding for operation and maintenance of the facilities, therefore, the likely neglect of services would continue indefinitely. For these reasons it was decided to abandon that scenario.

4.3.3 The "Rural Emphasis" Scenario

This scenario gives priority to economic and social development in the rural areas for sustainable livelihoods. It is a response to the fact that deficiencies in terms of human needs are greater in the rural areas, and that there is a considerable potential for better utilisation of agricultural and fish resources in these areas.

In this scenario the initial focus will be on natural resources in the rural areas land, water and working hands to be utilised from early on to a significantly higher degree than at present. Changes in agricultural production methods can be achieved relatively quickly, increasing the production of crops, fish and shrimps for local consumption. Normally this is followed by a gradual increase in local food processing and later also in mechanised farming. Surplus production is sold and higher incomes allow an improvement of living standards. Public sector investment in public services is however concentrated in the areas of highest need without necessarily achieving a uniform standard throughout.

Increased agricultural and fish production cannot of its own solve the poverty issue. It is predicted that the highest increase in production, through increased yields and reduced wastage, will only bring the proportion of people below the poverty line down from approximately 79 % to 57%.

However, increased agricultural and fish production cannot of its own solve the poverty issue. It is predicted that the highest increase in production, through increased yields and reduced wastage, will only bring the proportion of people below the poverty line down from approximately 79 % to 57%. Inability to sustain the growing population in rural areas will also have implications for urban areas, which will continue to attract migration, and a failure to prepare for it would have disastrous outcomes. Current migration from rural to urban areas may slow down initially thanks to investment in these areas, but with increased efficiency the need for farm workers will decrease and out-migration will again increase. Cities may also attract young people with better education and income. Furthermore, housing land shortages are likely to arise in some of the island communities of the wetlands.

Beyond the initial stages of increased production in the rural areas, marketing of produce will rely on the purchasing power of both rural and urban population, and the development of agriculture and fishing based industries will rely on business institutions and skilled personnel that are more likely to be found in urban areas.

This scenario clearly points to the need for bringing together the efforts for rural and urban development, as well as good

communication between the two. Thus the 'Rural Emphasis' scenario has been rejected as incapable on its own of transforming the development process of the Niger Delta Region.

4.3.4 The "Urban and Industrial Emphasis" Scenario

This scenario gives the higher priority to economic and social development in the urban areas, particularly to industrial and business "Growth Centres" and economic "Growth Poles" (see Appendix C).

The scenario assumes that in the long term the wealth of the Niger Delta Region will depend on industrial production of oil, gas and solid minerals and their related industries, but that these can best expand in urban areas that provide the diversity of supporting services (financial and legal, sub-contractors, pool of skilled labour etc) and that offer a sufficiently safe and pleasant environment for high capability employees to live in. Investment in physical, human and institutional infrastructure as well as in the urban environment is most likely to produce results in places with the highest growth potential. Such potential derives from natural resources, the presence of a large pool of skills and supporting services, and an existing positive culture of business development and marketing. More specifically, this scenario assumes a serious effort is put into reducing the 'barriers to growth' such as bureaucracy and corruption (as is now widely recognised by international expertise with developing countries, and enshrined in the NEEDS policies). However, not many cities in the Niger Delta Region possess the qualities that are associated with economic growth. Priority would therefore be given to a few cities with relatively greater potential than others. These become the catalytic 'growth centres' of the region, but through local multiplier effects their economic success radiates further into the region, by providing employment, building up a body of expertise that spreads to other cities, increasing the regional tax base and by investing in services that are used by a wider regional population.

Increased industrial and business wealth, if well-governed, well-managed and re-distributed, will increase the purchasing power of millions of people. This will increase the demand for goods and services, which in turn will expand the diversity of opportunities available in urban areas.

The rural areas will as a result benefit from an increased demand for food, and from a regional business infrastructure that will seek to market the natural resources of the rural areas agricultural and fish produce, as well as solid minerals.

The resultant improvement of employment opportunities and of the urban environment in urban areas will take time to materialise. When it does, it will attract more of the rural population into the cities.

However an urban emphasis would imply insufficient investment in the rural areas, which will become increasingly unattractive. Many younger and better-educated people will migrate, leaving the elderly and the less capable behind. This could lead to the severe depopulation of many rural communities.

For a region with a rich tradition of rural community life the loss of an important aspect of the heritage and identity is not acceptable. This scenario therefore also points in the direction of integrating rural and urban development efforts.

4.3.5 The "Environment First" Scenario

The natural environment plays a very important role in the life of the Niger Delta. Properly harnessed the resources can continue to sustain the growing population, livelihoods and traditional activities of the communities in the region. However, the delicate balance between the competing demands on the natural environment is facing ever-growing threats.

Some of these threats include pollution from oil and gas, the clearance of large areas of forest, over fishing, and the ever growing risk of chemical and pesticides use in agriculture and fish farming.

Others are severe flooding, likely to be compounded by global warming and rising sea levels, soil erosion, ground water pollution from waste and sewage and increasing levels of air pollution from vehicular traffic. While the need to protect the natural environment and to strive for sustainable development is indisputable this cannot be achieved without investment and economic growth to pay for such conservation measures. At the same time dire poverty, which is the root cause of the over-use or inappropriate exploitation of the natural environment, has to be tackled through balanced poverty reduction programmes

An environmental protection scenario therefore cannot be viable on its own. Rather it has to be an integral part of a strategy that focuses on striking a balance between economic growth and environment conservation objectives.

4.3.6 The Integrated Strategy Scenario

The assessment of the previous five scenarios leads to the inevitable conclusion that the best development strategy for the Niger Delta Region is one based on a balance between rural and urban, between environment and economic development.

The essential causes of the problem, as described earlier and in other sections of the Master Plan, make the development of a strategy that may overcome them imperative. It is a strategy that recognises the impediments to wealth in the region, and builds up the capacity of individuals, institutions and Government agencies to be enterprising and to utilise the abundant human and natural resources to better effect. It spearheads change where it is most needed - in rural areas, and where real and sustained results can be achieved more swiftly, particularly by increasing agricultural productivity. In parallel it prepares the ground for change in urban areas, where long-term wealth, increased productivity and industrial growth for the growing population has better prospects. This strategy shows awareness of processes of change and of the relationships between parts of the process. It calls for integrated action for the necessary physical, human and institutional infrastructure in essence.

The scenario also visualises early intervention in the rural areas, where over 70 % of the population live and work, to stimulate a relatively fast increase in agricultural and fishing productivity and gross product, accompanied by growth of the processing and service sectors. It is anticipated that the wealth thus created will increase demand for other material goods and services that are produced to a large extent in the urban areas. In the long term, agricultural employment will decrease due to mechanisation, while urban and industrial employment has the potential for continued expansion. However, creating conditions that will attract enterprise into urban areas generally requires a longer lead time than, for example, initiatives to improve agricultural yields. Preparatory interventions in the urban areas will therefore have to begin early, to achieve well planned and effectively delivered infrastructure and services for the development of employment and housing, needed to accommodate population growth and migration from rural areas as it arises.

Thus, during the first five years of the Master Plan, the expected outcomes are seen as a marked increase in employment and income in the rural areas, while in urban areas the emphasis is on planning, development and infrastructure, creating the enabling conditions for urban growth.

In years 5-10 of Master Plan implementation, economic activity in rural areas is expected to progress with more efficient methods of production including some mechanisation, and with food processing industries. Essential infrastructure, human and institutional capacity in urban areas will enable faster growth in industrial employment, at a time when rural employment is likely to decrease. The policies of the Master Plan are set out to encourage collaboration between rural and urban businesses to boost sales to other parts of Nigeria and exports to the international market.

In the longerterm, during years 10 15, further spread of mechanised agriculture and aquaculture is envisaged, producing still higher yields but with fewer workers. By this phase of development, communications will be vastly improved allowing more villagers to work from home in non-agricultural employment, and the more accessible villages in the dry lands could become urban satellites. Given the real threat of rising sea levels, there is a possibility that some villages in the mangrove swamps may have to be abandoned because of rising sea levels.

This section tells the story of a potential future and the expected impact of the preferred strategy for the Niger Delta Region.

4.4 The Balanced and Integrated Scenario

This section tells the story of a potential future and the expected impact of the preferred strategy for the Niger Delta Region. It is intended to set the scene for detailed treatment of policies and proposals - the carefully designed routes to be pursued to achieve the Plan's vision - which are described in Chapter 5 of the Master Plan document- 'The Regional Master Plan Strategy'.

4.4.1 Action in the Rural Areas

Approximately 75% of the Niger Delta Region population live in rural areas, most of them in small village communities in the lowlands. At present their main economic activity is farming of root crops, fruit and vegetables, mostly by individuals using simple methods and poor quality seeds and cuttings. Yields are low with significant proportions of produce being lost to factors such as poor storage (31.3%) and rodents (35.6%). Much of the produce is consumed locally and there is little experience with large-scale operations that require external finance, storage, processing and marketing. The low technology farming comprises the greater proportion of agricultural activity, the

rest includes oil palm cultivation, cocoa and rubber plantations, and some rice cultivation among others, all of which have diminished in significance as the oil industry and crude oil revenues have come to dominate the regional economy. In the wetlands, along rivers and lakes, people engage in fishing, some exclusively and some in parallel with farming. Individuals using low technology undertake much of the fishing. Fish not eaten immediately is smoked, again mainly for local use. However, a few established fishermen make substantial sales to the major cities, often with middlemen coming to buy from them in the villages for re-sale in the cities. This type of traditional artesian fishing comprises a major part of the total fishing industry. The remainder includes a few fish farms, marketing their catch live in water tanks since cold storage technology is expensive and unreliable.

4.4.2 Developing Agriculture and Fishing

The proposed starting date for the Balanced and Integrated Scenario is 2005 with a concerted programme of quick impact demonstration projects designed to increase agricultural production.

A relatively simple investment in good quality seeds, cuttings and fertilizers together with training will be offered by the RDS for crops that are suitable for each location

(a) Co-ordination and structural improvement

The programme will be co-ordinated by a Rural Development Service (RDS) from the very beginning. Local leaders and key stakeholders will be consulted and involved in the decisions about the scale, type and location of appropriate rural demonstration projects, one in each State. A relatively simple investment in good quality seeds, cuttings and fertilizers together with training will be offered by the RDS for crops that are suitable for each location. Some crops (e.g. cassava, plantain, yam) are very wide spread and can be replicated in most areas. Others are less widely spread but have very good prospects in specific locations (e.g. rice in Bayelsa, pineapples in Cross River and Edo). At the next stage efforts will be put into more sophisticated measures to reduce the wastage from rodents, inefficient storage and transportation, and other problems.

Similarly, advice and better technology will be offered for fishing in the low lands, where the family or community may specialise in fishing or alternate between agriculture and fishing on a daily or a seasonal basis.

The techniques and processes that allow farmers and fishing communities to produce and protect higher yields will be promoted and widely publicised, the intention being to cascade the demonstration value of successful projects more widely across rural communities. The immediate objective to increase yields and generate surplus produce, where successful, will be complemented by action to introduce efficient marketing and distribution.

Activities in the first five years are designed to increase productivity of existing farmers on their own land, without major public sector investment. They are essentially small scale, family or community based, leaving the profits locally in the hands of the farmers rather than with major, possibly international, companies.

However efficient storage, effective marketing and distribution require greater expertise and financial investment. It is envisaged, therefore, that the demonstration projects will stimulate cooperation among neighbouring villages. Within the more enterprising communities sharing of facilities and expertise in the negotiation of loans and in marketing, should lead to a marked increase on investment in better production technology, in good storage and other methods that reduce wastage of produce, and in enterprises such as food processing and fish farming.

In parallel, preparation will be made for facilities that are essential if increases in production are to be consolidated and sustained. Small-scale enterprises for local consumption (e.g. rice mills; snail production) could function alongside larger ones (e.g. palm oil related) that have a greater capacity for sales to other regions in Nigeria and export to other countries. This will require higher levels of organisation and marketing, which may also lead to spin-off demand for such services located in the towns and cities. Access to markets via roads, sea-ports or airports will also have to be secured.

Even the relatively simple initial intervention to increase yields requires careful planning, training of instructors and managers, procuring micro-credits, and preparing for the storage, marketing and distribution requires a longer lead time to develop the necessary infrastructure.

Equally important are the efforts including statutory measures to substitute importation of products with local production. Of particular value is import-substitution of crops such as rice, and maize, fish and cowpea, and of building materials that could serve self-build of homes. Import substitution policies are outside the control of the regional authorities and will have to be carefully considered, so as to support infant industries but not create complacency that discourages competition and improved efficiency.

The potential for growth in agricultural production during the first 10 years of the plan is focused on increasing the yields of cassava, maize, yam, plantain, oil palm, pineapple, rice, and leafy vegetables (see Table 4.1 below). These crops account for at least 80% of agricultural output and food

requirements in each of the States and have potential for large increases in volume.

The development strategy for agriculture and fishing should lead to much higher attainable yields within five years and to reduced levels of storage and processing related losses with an attainable target to reduce such losses to 10% over 10 years.

(b) Diversification

About 79% of rural farm households were living below the poverty line in 2002. Based on farm incomes alone, this percentage should be reduced to around 57% after 10 years of effective implementation of the Master Plan. It is tangible improvement, but not sufficient to alleviate poverty. Additional sources of employment will, however, increase in parallel and further poverty alleviation and growth will come from such diversification and improved access to basic amenities. These will include:

- Agriculture and fishing related activities: such as food processing and distribution, developed alongside food production, production of simple tools, and servicing of mechanical equipment. Many of these activities will be small scale, undertaken by local residents or as joint community efforts. Income from these activities will, for most part, stay within the rural areas;
- Personal and community services such as health, education, culture, sport, community management: these will employ doctors and health care workers, teachers, trainers and community workers. The provision of these services will also improve access of the rural populace to basic amenities, the absence of which is also an aspect of poverty, quite apart from mere size of earnings
- Engineering and construction: of physical infrastructure (utilities, roads and waterways), of housing and community facilities, and of agricultural structures. House building will expand substantially, as there is a need to accommodate on average 100,000 new households annually, in addition to the improvement of existing sub-standard homes. Training in the building trades (partly for self-help) will be promoted and the development of local building cooperatives could also provide more formal local employment.
- Tourism: an additional economic activity will be explored, although on a more limited scale than agriculture and fishing. An initial study will explore the diverse environments that would be suitable for domestic leisure tourism, for leisure tourism of international workers or visitors, and for 'ecological heritage tourism' for tourists. The latter could also be part of domestic appreciation of the local heritage. The regional plan will buy into the National Master Plan for Tourism that is being developed by the Federal Government of Nigeria.

  An experimental tourism development strategy with community participation in 3-4 selected areas will determine the real tourism potential and estimate the costs (social, economic, and environmental) as well as benefits of tourism development before further refinement of the tourism strategy. A few of the most promising sites will be selected as pilot projects. Federal Government support in marketing is also envisaged. A critical focus in the first 4-5 years, however, will be to aggressively combat conflict and instability in the region, so as to increase the attractiveness to tourists and pave way for fuller development in subsequent years of the huge tourism potentials presented by the long Atlantic Coastline, and diversity of ecological zones, flora and fauna and the rich cultural and historic heritage
- Environmental protection is an essential part of this scenario. Oil companies have clearly realised that their reputation as well as their future operations suffer where oil and gas continue to pollute the sources of local livelihood. The present level of gas flaring will be significantly reduced and off-shore operations are expected gradually to replace existing wells. It is expected also that oil companies will cooperate with the regional authorities in an integrated programme to introduce reliable power supply to both urban and rural areas, establish metered consumption and train engineers in maintenance of the systems. These changes will facilitate development of higher technologies in agriculture during years 5-10 of the Master Plan. Environmental protection activities could also generate employment for instructors and assessors of responsible agriculture and fishing practices, to avoid ground and water pollution by chemicals and to prevent depletion of fish stock due to over-fishing.

Human needs such as health, housing, education, security, friendship, self respect, consumption and other needs, therefore, will not be treated in isolation.

4.4.3 Catering For Human Needs An Integrative and Spatial Approach

The scenario of increased agricultural

productivity can only materialise if it is pursued alongside an improved programme of action to address human needs: neither of these can succeed in isolation. For example, good health is necessary for a productive life and may be considered as first priority, but the resulting lower mortality and faster population growth would bring only misery if there were not the produce to feed the increased number of people and a surplus from agricultural production that could be traded for profit income to meet the costs of housing and education.

Human needs such as health, housing, education, security, friendship, self respect, consumption and other needs, therefore, will not be treated in isolation. People who engage in these aspects of life interact with each other, and those that create the general culture of communities are affected also by the natural environment, economic conditions, the political environment and the quality of governance.

(a) Collaborative Effort

In the rural areas most of these interactions take place in the village and its immediate surrounding. The villages are small enough for everyone to know each other and to be involved in most activities. The integrated scenario is based on the principle that better quality of life will gradually develop by bringing together the initiatives of the various sectors to work from within the local communities, with teachers, health workers, law enforcers and agriculture or fishing instructors collaborating and reinforcing each other's work. Schools, for example, could adjust their curricula to increase awareness and knowledge of local habitats and food production, organise sports and cultural events, and promote adult education and training in promising economic activities whether propagation of crops, fish and livestock, maintenance of generators or the use of computers.

Health services would be provided initially as 'mobile clinics' and 'community doctors' working within the villages.

A Community Development room will be established in every village or cluster of neighbouring villages, where plans and the progress of the different 'sectors' in the local area will be displayed, and where the specialists of the different sectors will meet regularly to discuss cross-cutting issues. The Community Development room will be the 'thinking space' for the Programme, and the village and its surroundings will be the 'action space' of it, while the wider region with its urban settlements will be the 'transaction space' where goods and services will be exchanged once surplus is being produced. Various interventions will be made to facilitate such 'transactions'. They include transportation and communication, marketing and distribution, and provision of specialised community and commercial services in urban centres, as described later.

(b) Increasing awareness of rising sea levels

In the wetland areas where rivers and lakes are more predominant the main aspects of the development strategy will be as described in the preceding sections but there shall be a greater focus on fishing and aquaculture. However, because of seasonal flooding and the further threats posed by rises in sea levels in recent years structures that are planned to last for more than 5 years should not be allowed inside the 50cm contour band, more than 10 years will not be allowed inside the 1m band, more than 20 years should not be allowed inside the 2m contour band. These restrictions will be reviewed and updated as revised scientific information becomes available. The space for well-built houses, which should last for generations, will therefore be restricted in some villages.

Estimates of the rate at which the polar ice caps may melt and the sea level may rise are greatly varied from 1 metre by the end of the 21st century to 4 metres by 2040. Some parts of the land around villages will be in greater danger of flooding than other parts and this will be reflected in the development programmes of every area. Contour maps will need to be produced to illustrate the extent of land liable to flooding if sea level rises by 50 cm, 1m, 2m, and 5m.

(c) Catering for population increase

Current demographic base-line data suggests an average population increase of 3% per annum. This would imply 950,000 new households within 10 years at 7 persons per household. However, the figure is likely to rise above 1 million if household sizes decrease as education and wealth increase, and if health measures lead to longer life expectancy. Overall the number of households remaining in rural areas is likely to be reduced by migration into urban settlements. The rate of increase in the number of households and the rate of in/out migration will be monitored regularly. Whatever the variation, finding safe land and adequate resources to build the additional homes and to replace or improve the inadequate ones will be a major challenge.

The necessary addition of homes to each settlement will be determined by the States in consultation with local communities and revised as necessary. It may point to intensified development programmes in urban settlements that are relatively safe from rising sea levels. The full extent of development land and its proposed uses will be identified as part of detailed planning at State level.

4.4.4 Catering for Human Needs Sectoral Aspects

Health services would be provided initially as 'mobile clinics' and 'community doctors' working within the villages. Their initial efforts will focus on hygiene to prevent infections, prevention and treatment of Malaria, and the prevention of HIV, Yellow Fever and Typhoid. Within 10 years improved transportation and personal wealth should enable people to go more frequently to larger clinics in rural service centres or nearby urban settlement for treatment.

Clean water, indoor and outdoor sanitation are key factors that affect health and hence the ability to be economically productive. These will be achieved by a combination of public sector investment in utilities, and training the villagers in techniques of home sanitation.

Adequate housing is an important contributor to well being. More than 80% of rural population have sub-standard housing that requires improvement, in addition to the annual increase in households mentioned above. Standard construction of new housing in the rural areas is relatively expensive (N2.5 3.5 million per home. There will therefore have to be greater reliance on 'self help' methods of home improvements. Many villagers at present use mud and bamboo methods of construction while gradually collecting bricks for later solid construction. The skills of using local materials will be improved and production of durable building materials from local clay and other solid minerals will be encouraged.

Community life is one of the strong features of the rural population. This will be treasured and enhanced in various ways. Agriculture and fishing interventions will be accompanied by supporting interventions in other aspects of community life. Education, arts, culture and sports in the same villages will be promoted to involve the entire village community in thinking about potential improvements they could make to their quality of life:

- Cultural resource centres will initiate events and programmes focused on traditional arts and crafts, in collaboration with local schools;
- Sports events and programmes will encourage healthy living for all but will engage the youth in particular in activities that give them an opportunity to use energy creatively to excel.;
- Women's status and human rights will be enhanced by community education, allocation of roles, and statutory provisions;
- State and local government authorities will improve the level of communication with local communities, recognising the specific issues and key figures in each community.

Education at the primary level is already well established in most areas but teaching standards, facilities and equipment are poor and inadequate. Priority will be given by the education authorities to areas with the highest deficiency either by capacity building of teachers to enhance the quality of teaching, refurbishing school facilities or by providing subsidized transportation to pupils who are more than 45 minutes walk away in addition to the regular formal curriculum a new focus will be emerging: preparing children and training adults for economic activities in their part of the region and for entrepreneurship in general. State universities will extend training with new teaching programmes and will monitor their effectiveness.

Consumption of goods and services will increase. As more varied and more profitable employment in the rural areas develops, it will enable higher consumption of goods and services generally. House building and improved sanitation will begin to be taken up more rapidly than at present. More money will be spent on retail and this would be an opportunity to move on from the typical string of untidy shacks and booths that signal the entrance into most towns - decent shopping areas will be planned into the urban fabric, with good access by public and private transportation, car parking, and a cleaner and safer environment for pedestrians.

There will be a limit to the number of people employed in agriculture. In the early years, young people will replace the older generation of farmers who currently comprise the majority of all farmers.

4.4.5 Physical Infrastructure in Rural Areas

The changes described above will be supported by physical infrastructure improvements. The main improvements will be to drinking water, power supply, sanitation, telecommunication, roads between villages and their main production and service centres, plus canal linkages between waterways. Some of that infrastructure will be developed as part of regional networks, while some will be developed as local improvements. The prioritisation and justification for investment in specific infrastructure projects will be determined in relation to the economic or social project / programme that requires infrastructure as its 'enabling development'. Where construction of utilities and services along roads can be combined to take advantage of cost savings a coordinated work programme will be produced.

Planning, design and other preparation of physical infrastructure have a long lead-time and will begin from the outset.

4.5 A Changing Balance between Rural and Urban Areas

There will be a limit to the number of people employed in agriculture. In the early years,

young people will replace the older generation of farmers who currently comprise the majority of all farmers. Specific interventions to encourage youth to engage in agriculture and aquaculture are therefore vital both for absorbing the youth and for forestalling looming food crises. As surplus production is sold and profits are invested in more advanced technology, fewer hands will be required on the land. Employment in agriculture will increase initially, but towards the end of a 10 year period of effective implementation of the Master Plan, it is likely to decline. More young people will seek employment in non-agricultural activities. Their training will enable them to be employed as factory workers, professionals and administrators in the private and public sectors. However, positive action to increase employment opportunities in rural areas will ensure that the exodus of young people from rural to urban areas, and all the attendant problems do not continue unabated. Many young people should increasingly find employment opportunities providing goods and services in the rural areas. Inevitably, many will still seek to make their living in the larger towns and cities but it is likely that the rate of migration from rural areas will be reduced.

Overall, it is projected that the population of the Niger Delta will increase by about 11 million within 10 years, based on an average annual growth rate of 3.1%. It is likely that once investment in the rural areas is widely felt, the existing migration from rural to urban areas will slow down; and when health is improved, natural growth will also increase. In consequence there will be a surge in rural population growth in years 1-5, adding some 3.8 million people or 550,000 households to those existing in these areas. Although it may not be possible to accommodate all of them in the rural areas, those remaining in these areas will reinforce the growth in house building, goods and services. However, as agricultural employment stabilises or even declines due to more advanced technologies, rural population growth will slow down and urban growth will increase more rapidly.

It is therefore important to plan ahead in such a way that the growing population can be absorbed in the larger towns and cities.

4.6 Action in the Urban Areas

4.6.1 Planning For Urban Growth and Regeneration

Urban population in the Niger Delta Region numbered approximately 6.9 million in 2002. Within 10 years it is expected to increase by about 2.25 million (assuming 3% per annum) or about 325,000 additional households (assuming 7 persons per household) due to natural growth. Household numbers are likely to increase further due to longer life expectancy and to smaller average household size. The growing urban population, whose numbers will be swelled by in-migration fro the rural areas, will require employment, housing, and services.

The demand for services in urban areas will therefore be fuelled by urban population growth as well as by growing demand from the economically active rural areas, looking for more specialised personal and business services. These will include health, education and personal services for individuals, as well as financial, legal and other professional services for agricultural and processing enterprises.

The strategy for rural development is based on a sound principle good government creating conditions that enable local farmers to increase their productivity. A similar principle rules the strategy for urban development: while Government can provide many of the enabling conditions for economic growth, the widely diverse individuals and companies in the private sector are best placed to seize opportunities for new enterprise or expanding existing ones. However, the enabling conditions that will attract private enterprise to development of urban employment, services, housing and general regeneration, require a longer lead time than improving yields in agriculture. Preparation for urban growth will therefore be started at the earliest possible stage in the plan implementation process.

The demand for services in urban areas will therefore be fuelled by urban population growth as well as by growing demand from the economically active rural areas,

Economic growth will be stimulated by enterprise, and enterprise will be attracted by particular enabling conditions. Some of these conditions, such as political stability and good governance at the State, and LGA levels should be the focus. But other conditions must also be present and planning for their implementation will start in parallel with the investment in the rural areas. This will help to ensure that the level of urban economic activity keeps pace with the region's requirements.

The main enabling conditions for business enterprise are:

- Physical infrastructure - reliable power supply; reliable telecommunications; fast and reliable transportation;
- Good working and living environment - security of life and property; clean and well organised urban environment; suitable housing for employees, good standard of health and education services and of retail and leisure;
- Good business environment convenient financing arrangements, greater sensitivity responsiveness

from State government and institutions to the industry's needs, whether in skill training, transportation or investment promotion and large scale marketing;

- Research and Development in subjects that have growth potential in the region - agriculture and fishing; food processing, engineering, petrochemicals, entrepreneurship, and public sector management;
- Good governance - non-corrupt, reliable and less bureaucratic governance regarding registration, permissions etc; efficiently administered regulatory controls; and generally enforcement of contracts, and of law and order;
- Good planning and management - improved capacity of public agencies and individuals to plan ahead for economic growth and for urban development, including the creation of enabling conditions for private sector enterprise; awareness of processes of change; consulting stakeholders; ensuring consistency and feasibility; and, monitoring and review.

Planning and implementing urban expansion and regeneration is a rather lengthy and expensive process. Urban regeneration is particularly difficult changing the physical fabric while expensive will not have lasting effects if the urban dwellers do not acquire the means of maintaining it. Regeneration is also dependent on increased financial resources to carry the process of redevelopment. Here too economic growth is essential since its surplus earnings would enable the private sector to finance the cost of infrastructure, redevelopment, and social regeneration. Advance preparation in urban areas is, therefore, a key to successful implementation of the Master Plan.

4.6.2 Building on Strengths

Introducing the enabling conditions mentioned above would be a tremendous challenge if applied simultaneously to all the towns and cities of the region. The integrated and balanced scenario therefore visualises gradual change. As mentioned before, it would not be effective to focus on one aspect alone and a combination of all these enabling conditions is necessary for success. The scenario is based on recognising places that have a good potential for growth, building on their strengths and enhancing the enabling conditions for growth in these places. Integrated programmes in such growth centres or growth poles are more likely to succeed and would then act as demonstration projects to encourage other places to attempt the same.

There are various kinds of strength to build on, which form the basis for priorities in the Master Plan:

- Areas where industrial and other enterprises have grown around natural resources and have a fairly well developed infrastructure of financing, large scale production and export facilities. Rivers, Delta and Cross River States have an edge in this respect. The Niger Delta crude oil is of high quality and most of these industrial activities are centred on oil, but are capable of expanding further into the petro-chemicals industry. Where the infrastructure of large industries and export is established, it will be possible to expand it into solid minerals (e.g. glass sand, clay, palm oil) and other products such as processed food, where there is high demand or where demand could be raised by import substitution.
- Urban centres that have a realistic potential to become specialised in service and business activities, including retailing, personal services, higher education and health, financial and legal services, IT services, as well a small and medium size manufacturing. To compete for these businesses these centres should also offer a good selection of housing standards and a high quality urban environment, including paved and clean streets, good sewage and drainage, parks etc.
- Large cities that can offer all the above but to a higher degree, including head offices and R&D units of large companies, universities, cultural centres and more. A high quality urban environment is all the more important in these cities to give them the competitive edge and to accommodate immigration.

The selection of plans for pilot projects in each of the growth centres will be guided by considering the most effective means of advancing the cities' designated growth potential.

Experience around the world has shown that the larger the city, the more mixed its population and labour force and the more diverse its range and scale of businesses, the faster it grows. This is due to the better support services and skill pool that large businesses can draw on, and due to the wider opportunities for creative ideas and young enterprises to find a niche for themselves.

Taking account of these attributes, intervention will initially concentrate on one place with good growth potential in each State, with priority to either the largest city as an urban growth centre, based on industry or

services, or the designation of an economic growth pole . These priority areas will serve as pilot projects for urban growth and improvement. Pilot projects would be integrative and include a number of initiatives such as industrial estates as centres of excellence, accommodating enterprises of mixed sizes and providing support services and training; model town centres, and residential model neighbourhoods. The successful ones will become demonstration projects, and the lessons learned from both success and failure will guide the development programme for subsequent years, covering a larger number of urban centres.

The most promising potential for increased economic activity in each State is described below.

4.7 Growth Centres Development Programmes

The selection of plans for pilot projects in each of the growth centres will be guided by considering the most effective means of advancing the cities' designated growth potential.

Following a year or two of planning and preparation of delivery mechanisms for priority projects, changes should begin to be noticed in the style of governance,

For each of the pilot projects an integrated development strategy will be prepared, covering the enabling conditions described under i) vi) above.

While individual pilot projects may vary in nature, some features will be common to all. During the first year the focus will be on preparing the tools for implementation:

- Capacity building at State and Local government levels, for better 'development planning' and for better governance, with an emphasis on transparency, public participation, efficiency and law enforcement;
- Formulation and implementation of necessary statutory and institutional changes;
- Planning for urban extensions as well as serviced residential neighbourhoods for mixed income levels, regeneration of town centres to create good quality commercial centres; and better roads and transport in the towns; plus general town planning of designated growth centres that do not have a town / city plan and enforcement of planning standards so that subsequent growth and expansion of these growth centres does not create urban decay, traffic congestion, and a decline in the standard and quality of life.
- Planning improvements to the regional power supply and to the communication and transportation networks and, within them, detailing the sections of network needed to serve the link between growth centres and their hinterland,
- Developing delivery mechanisms, with emphasis on the relationship between the public and the private sectors in terms of financing, development, marketing, operation, and regulatory control.
- Monitoring of progress, analysis of the causes of achievements and of difficulties, and incorporation of conclusions in a regional capacity building programme of public sector management.

Significantly, all these preparatory steps, which are essential to successful implementation of the Plan, will involve improved practices at all levels of government. High levels of operation would have to be maintained, and universities will be devising courses in governance and planning both for graduates and for mid-career professional development. Indeed, the sheer scale of capacity building in governance that is necessary for effective implementation of the Master Plan and for accelerated development of the region with or without the Master Plan is such that justifies a specialized training institute with technical support of local and international institutions. International support should be forthcoming for such initiatives.

Following a year or two of planning and preparation of delivery mechanisms for priority projects, changes should begin to be noticed in the style of governance, in public consultation over urban plans, in some communications and traffic improvements and in preparation for urban extensions. Given a further year or two changes will begin to be felt on the ground, although a significant change in the economic, physical and social fortunes of these cities may only be felt towards the end of the first five-year implementation period and during years 5-10.

The cities and towns proposed to become growth centres should have pilot projects, planned within the designated growth potential of the area.

4.7.1 Spreading Growth

While growth centres and growth poles will receive special attention in the early years and kick start urban economic growth in the Region, intermediate urban settlements will not be neglected. Their regular public sector budgets will continue to flow and will be invested in services to rectify the greatest deficiencies. Increased wealth in the rural

areas will increase spending in urban centres, and some enterprises will find the smaller urban settlements attractive for their purposes.

During the first 5 years of the Plan reliable telecommunication and better regional transportation will expand the effective operational range of many smaller urban settlements. Their residents would be able to benefit from wider learning and business relationships. University courses and 'on the job' training will be available for public sector management and for private sector entrepreneurship. Support units will be set up in each State to advise inventors and investors who may choose to operate in different parts of the State. With better governance and management an early if modest improvement should be felt in most settlements.

The progress of intermediate urban settlements will be monitored and successful initiative will be rewarded with special budgets. The reasons for success and failure will be analysed in an academic centre for governance and urban studies, attached to Calabar and the Niger Delta University in Bayelsa State (thus having one Federal and one State-owned university in the region for this purpose). The findings will be disseminated via local universities and will be used to guide improvement in other towns across the region.

4.7.2 Human and Institutional Capacity Building

The Master Plan's integrated and balanced scenario indicates significant and far-reaching changes from the current state of affairs. These changes will materialise thanks to efforts by all active stakeholders to conduct their activities to best effect. Their current manner of operation is constrained by rules and practices of existing governmental, commercial and social institutions, as well as by personal knowledge and experience. The capacity of the region to grow and improve depends on the capacity of active stakeholders and of institutions to operate in accord with the Master Plan principles of an integrated and collaborative approach, efficiency and fairness.

Capacity building is therefore a pre-requisite for successful implementation of the Plan and, as such, is an essential part of the programme from the very beginning.

Better utilisation of the region's resources both natural resources, financial and other resources depends on the capability of people who use them. They include individual producers like farmers and fishermen, small, medium and large entrepreneurs in the private sector, as well as Government officials at all levels whose policies, plans, and management decisions can lead to good or poor use of the resources available. Development of these capabilities will increase the human capital of the region, which is just as important an investment in the future as is financial capital.

Development of the human and institutional capacity will take place in several spheres:

- Good Governance at Federal, State and Local Government including good planning and management of urban and rural development, open consultation and transparent decision making, efficient organisation, liberalisation and reduced bureaucracy, and additional measures to prevent corruption. A Statutory requirement to make public every Government agency's accounts and planning decisions, and to have widely publicised public consultation on regional planning policies, could help to build-up public pressure for transparent and non-corrupt practices.
- Community and social management including leadership in local communities, empowerment of women and youths, handling of social tensions, and cooperation between communities;
- Community services including training workers for different levels of service provisions in the areas of health, education, culture and sport;
- Agriculture and fishing instruction and assistance including setting up of the Rural Development Service (RDS) and training its workers;
- Business enterprise instruction and assistance including setting up of a Business Enterprise Service (BES) and training its workers;
- The construction industry establishing a regional overview responsibility for capacity of the industry to cope with the planned physical development of housing and infrastructure, including the supply of building materials, haulage, construction skills and equipment, and training for self-build and building cooperatives.
- Financial institutions including provision for 'micro credit' and other 'user friendly' but well controlled lending mechanisms;

A Nigerian curriculum of public sector management will be adapted to the Niger Delta circumstances, with a particular focus on good planning and governance of urban and of rural

Opening of new routes for essential traffic in rural areas such as taking produce to market or sick people to hospital may be achieved initially by un-paved roads.

areas. It is anticipated that promotion in the public sector to certain cadres will be conditional on course attendance and achievement in addition to traditional job performance criteria;

Statutory changes as may be required to underpin the changes proposed above.

4.8 Regional Infrastructure

(a) Road improvements will be prioritised by the role they play in assisting economic growth, as for example roads connecting growth centres with their hinterland. Road building is an expensive undertaking and its share of the financial resources will be limited by demand from other quarters. Works will therefore commence with repair of existing roads to enable faster and safer traffic. In this way the road capacity in years 1-5 would be increased sooner and more economically than by building new paved roads. The more expensive widening of paved roads will be limited to roads that play a very special role in facilitating economic growth. Opening of new routes for essential traffic in rural areas such as taking produce to market or sick people to hospital may be achieved initially by un-paved roads. In parallel, plans will be drawn for a more complete regional road network as follows:

Implementation of the Master Plan will start with at least one 'quick impact' demonstration project in each State.

- An upgraded cross-route through the region, connecting Calabar in the east with Lagos in the west. This is in place and only requires expansion and improvement of some sections. This will for most part follow the existing road alignment, with a phased programme of improvements for various sections. Where the road passes through existing settlements, the road alignment and future plan of the settlement will be considered together, to avoid the undesirable effects of passing heavy intercity traffic through urban areas.
- Sub-regional roads connecting growth poles with their hinterland. Some of these will acquire greater importance by also connecting the sub-regions to the regional cross-route. A priority amongst improvements to sub-regional roads will be the link between Port Harcourt and the industrially active Oron, Uyo and Eket allowing the three to function as a cluster with the benefit of their combined population and services. A new road whose development has already been secured but needs to be effected is the one between Brass, which is a potentially active industrial area and port (as it hosts an Agip terminal, while the new Brass LNG and a refinery are proposed for this Island), and Yenagoa. Relatively short travel time (approximately 1 hour on a good road) would enable businesses in both centres to draw on each other, and a likely outcome will be the demand for residential developments between the two.
- Urban roads to relieve congestion and air pollution. During years 1-5 plans will be drawn up for urban improvements and expansion. Roads and other utilities will be an essential part of this plan and will be implemented gradually. While this is a high priority in the urban growth poles, their problems are severe and progress may be slow. It would be easier to design and implement integrated transport and expansion plans in the smaller urban settlements that have not yet reached the same degree of congestion. In these settlements the existence of good plans will prevent future problems from arising. The development of comprehensive town plans for LGA headquarters and intermediate cities that do not have such needs to be undertaken in the first 4 years of the Master Plan. This will facilitate orderly growth, sustained good quality of life, and the regional goal of emerging as Africa's most pleasant region by 2020.

(b) Improvement of the regional telecommunication system will progress in parallel and the rural areas will be connected into the regional network with the help of a VSAT system. Regulated privatisation of the system will progress, including maintenance obligations and better compatibility between providers. Sub-regional road improvements will include, where possible, service channels for electricity, telecommunication and water. Effective coverage by mobile communication antennae will be given priority attention in the growth poles and in the rural Demonstration Project areas.

(c) Improvement of power supply will start with establishing maintenance servicing agencies and training their personnel so as to increase the reliability of the supply from existing power stations and transformers. Power distribution will give priority to supply into growth centres and growth poles

4.9 Spatial Distribution

The balanced and integrated scenario has been described in terms of the sequence of changes that will take place in the rural areas

Table 4.1: Potential for Rural Economic Growth in Particular States

STATE	Crop Expansion Potentials	Fishing Growth Potentials	Tourism Growth Potentials
Abia	Cassava, maize, yam, and oil palm	Aquaculture	Heritage (Umuahia)
Akwa Ibom	Oil palm, leafy vegetables, yam, cassava	Fishing, Shrimp culture and Aquaculture	Leisure beach (Oron Beach) Ecological (Eket,Delta Creeks)
Bayelsa	Cassava, plantain, yam, cocoyam, oil palm, and developing rice plantations in the mangrove swamps.	Fishing and Aquaculture	Leisure beach , Delta Creeks, Historical (Akassa Raid / Nembe-British war relics)
Cross River	Cassava, yam, cocoyam, plantain, palm, rubber, cocoa, pineapples	Fishing and Aquaculture	Numerous Historic and pre-historic sites; ecological tourism: pristine tropical rain forest and wild life. Unique forests in the montane region;
Delta	Cassava, yam, plantain, rubber, oilpalm, diverse fruits	Fishing and Aquaculture	"Tourism belt" (Ethiope River)
Edo	Yam, plantain, cassava, maize, rubber, oilpalm, diverse fruits	Aquaculture	Heritage (Benin); Ecological forest (Okomu)
Imo	Cassava, oil palm, yam, vegetables, diverse fruits	Fish cage culture	Leisure resort (Oguta Lake) Historical (war relics)
Ondo	Cocoa, oil palm, yam, maize	Aquaculture	Ecological hills (Idanre hills)
Rivers	Cassava, oil palm, yam, pineapple	Shrimps by Trawling, Fishing, Aquaculture	Ecological forest; Delta creeks Historic (Jaja of Opobo / Slavery relics)

and in urban areas if the Master Plan is implemented. Within these areas interventions will take place in particular States. The distribution of interventions is outlined below, and more detailed allocations are specified in Part 5 of the Master Plan document.

4.9.1 Distribution of Interventions in Rural Area

Implementation of the Master Plan will start with at least one 'quick impact' demonstration project in each State. The projects' main aim will be to increase agricultural and/or fishing productivity and it will be integrated with human and capacity building of a rural community a village or a cluster of neighbouring villages. Selection of the specific village or villages will be undertaken in consultation with and by agreement between the State, LGAs and NDDC. (The nature of the integrated projects and the importance of disseminating lessons learnt have been described above).

Increased agricultural productivity in demonstration projects will be applied to the crops that have the highest potential for increased yields. Differing fishing methods will be developed where there is distinct potential for increased capture or rearing of fish (See Table 4.1). Agricultural production and fish capture techniques may be replicated by individuals with minimal State assistance, but these will be integrated with projects of community development that will be replicated in years 1-5 with public sector or NGO assistance and finance.

Implementation of the Plan will start with identification of the scope of pilot projects in the cities or towns designated in the Master Plan as 'growth centres

Tourism will help to diversify the rural economy and add to local wealth. It falls into three main categories: leisure, ecological, and heritage tourism.

The crops assigned to each State express the relative advantages of the States for these crops. The relative advantage for fishing and aquaculture as well as trawling is found in Bayelsa, Delta, and Rivers States. The same States also have potential for shrimping and shrimp culture. Poli-culture combining agriculture with aquaculture - has good prospects in Akwa Ibom, Bayelsa, Ondo and Rivers states.

4.9.2 Distribution of Interventions in Urban Areas

Implementation of the Plan will start with identification of the scope of pilot projects in the cities or towns designated in the Master Plan as 'growth centres', followed by preparation of a programme for capacity building to enable the growth centres project to materialise. Each State will have at least one pilot project in a designated growth centre, mostly incorporating a model business park that includes a business incubator and a link to a local university with

- R&D specialisation in the most promising growth potential of the State.

The identification of specific projects will be done by agreement between the State and Local Government authorities and the NDDC.

The growth centre pilot projects' main aim will be economic growth to underpin the anticipated population growth and to reduce poverty. However the enabling conditions for economic growth whether in industry or in services are complex and will require planning and implementation of substantial infrastructure, housing and regeneration, as well as human and institutional capacity building.

The cities and towns designated as growth centres, together with their specialised economic and services growth potentials, are described in Table 4.2.

Table 4.2: Urban Growth Centres and their Potential Economic Activities

(Bold typeface on some topics indicates the State is one of the three best endowed States in growth potential for that topic).

Table 4.2: Urban Growth Centres and their Potential Economic Activities

STATE	CITY	Medium and Large Scale Enterprises	Micro and Small Scale Enterprises	Research & Development specialisation
Abia	Aba		**Manufacture** Leather, clothing; Trading and retail; Clay; Kaoline; Silica;	Entrepreneur ship & business management (Abia State University)
Akwa Ibom	Eket	Petro-chemicals; Limestone;	Service industries Kaoline; Clay;	Information Technology (University of Uyo)
Bayelsa	Yenagoa Brass	Chemicals for the oil and gas industry, and gas derivatives **Petro-**chemicals; Trawling & trading Port;	Community /personal services; Retail; Sand; Clay; Service industries;	Fishing / Aquaculture; Oceanography and Marine Research (Niger Delta University) NDU
Cross River	Calabar EPZ	**Agro** Processing; Export oriented products; Quarrying and solid minerals industries: Limestone, Granite, Bentonite, Tantalite .	Service industries; Business & community services; pottery and crafts	Public administration, urban planning & Management (University of Calabar)
Delta	Warri	**Crude oil** refineries; Petro-chemical products Export oriented products	Service industries; Community & personal services; Sand, Clay	Information Technology (Delta State University)
Edo	Benin	**Limestone;** Bitumen; Granite; Processed citrus & pineapple;	**Arts and** crafts; Community & personal services; **Bentonite;** Dolomite; Marble; Caoline; Feldspar; Gipsum; gold;	Food Processing; Mineral Processing (University of Benin)
Imo	Owerri	Food processing	**Food** processing; Kaoline; Clay;	Engineering; Food processing; (FUTO)
Ondo	Akure	**Bitumen;** Granite; Limestone;	Kaoline; Silica; Clay	Petro-Chemicals (FUTA)
Rivers	Port Harcourt	**Petro-**chemicals; Export oriented products; Palm produce	Service industries; Community & personal services; Silica; Clay	Petro-chemicals (UST - University of Science & Technology)