

**GLOBAL ENVIRONMENTAL GOVERNANCE: THE  
ROLE OF UNEP IN WEST ASIA WITH SPECIAL  
REFERENCE TO THE REGIONAL SEAS  
PROGRAMME**

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21<sup>st</sup> July 2003

**CERTIFICATE**

This is to certify that the dissertation entitled “**Global Environmental Governance: the Role of UNEP in West Asia with Special Reference to the Regional Seas Programme**” submitted by **A. KANNAN** is his own work and has not been submitted to any other University or institution or for any other diploma or degree.

We recommend that this dissertation may be placed before the examiners for evaluation.

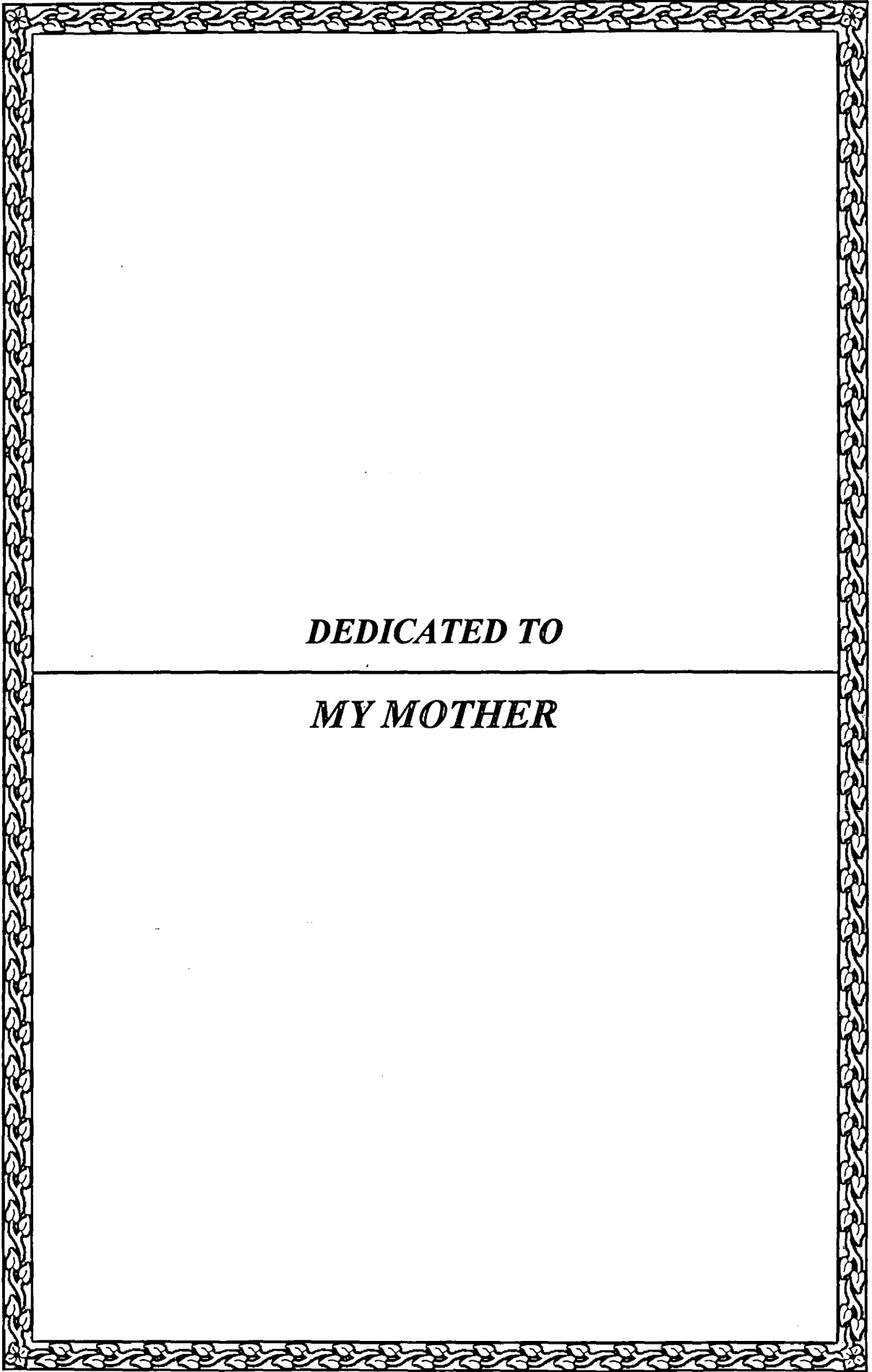
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*DEDICATED TO*

*MY MOTHER*

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**(A. KANNAN)**

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**CHAPTER I**

**GLOBAL ENVIRONMENTAL  
GOVERNANCE**

At present the governments are facing numerous challenges all over the world. The administrative machineries of these governments are not able to effectively tackle these challenges. It is due to the changing nature and dimension of these problems. Environmental problems are one of the challenges, which threaten the survival of humanity. In order to address the environmental problems, effective cooperation between the governments and the people are essential.

This chapter analyses the sources and consequence of the global environmental problems. It reviews the effort made by the international community in the name of Global Environmental Governance (GEG) to protect the environment. It traces the origin of United Nations Environment Programme (UNEP). It also examines the administrative structure and functions of UNEP. In addition to these, it also explains the concept of governance and global governance.

## I. MEANING OF GOVERNANCE

The roles of governments have changed in line with the changing nature of States in a typical pattern as enunciated by Jürgen Habermas<sup>1</sup>.

“Firstly, the Absolutist State signified the formation of the state monopolies of taxation and physical force, which, secondly, became legally anchored in political institutions and civil law in the constitutional monarchies. The emergence of the democratic constitutional state marks the third wave in which bourgeois revolutions brought about the nationalization of the state monopolies, thus breaking absolutist power. Finally, the formation of the welfare state tamed the autonomous dynamics that spring from the accumulative logic of the economic system and its generalized medium money”<sup>1</sup>.

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<sup>1</sup> Jürgen Habermas, *The Theory of communicative Action: Lifeworld and System: A Critique of Functionalist Reason* (London: Polity Press, 1996), pp. 356-363.

The government has traditionally played a very limited role in the socio-economic development of its people. With the emergence of welfare State, the roles of governments have increased manifold. Due to the rapid growth of population, the needs and requirements of the people have also increased at an unprecedented level. In response to these changes the governments have widened the scope of its activities and responsibilities.

Despite a greater role played by the government, there has been a huge gap between the aims and aspirations of the people and the performance of the government. This is because of the government's inability to fulfill all the legitimate demands of the people due to institutional constraints, inadequate physical, financial and human resources, lack of technology, etc.

Now days this gap is filled by the numerous non-governmental organisations (NGOs). These NGOs are voluntary in nature and actively supplement the government's efforts in the advancement of society. These NGOs are undertaking various social activities such as working at the grassroots level, creating awareness about the government's programmes, policies; easily mobilizing resources etc. The individuals and institutions of both public and private working collectively to manage their common affairs is termed as governance. The report of the commission on global governance defines the term governance as "the sum of the many ways individuals and institutions, public and private, manages their common affairs. It is a continuing process through which conflicting or diverse interests may be



accommodated and co-operative action taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest”.<sup>2</sup>

Governance is broader than government. The difference important “difference between governance and government is not one of nature but solely one of scope; governance.... is more encompassing phenomenon than government”.<sup>3</sup> Gerry stoker gives five characterizations on governance, which elaborate the nature, scope and importance of governance. These propositions are:

“ 1. Governance refers to a set of institutions and actors that are drawn from but also beyond government; 2 Governance identifies the blurring of boundaries and responsibilities for tackling social and economic issues; 3 Governance identifies the power dependence involved in the relationship between institutions involved in collective action; 4 Governance is about autonomous self-governing networks of actors; 5 Governance recognises the capacity to get things done which does rest on the power of government to command or use of its authority”.<sup>4</sup>

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<sup>2</sup> Marie-Claude Smouts “The Proper Use of Governance in International Relations” *International Social Science Journal* (Paris), March 1998, p.83

<sup>3</sup> Ibid, p.82

<sup>4</sup> Gerry Stoker, “Governance as Theory: the Five Proportions”, *International Social Science Journal*, March 1998, p.18

In sum, it can be said that governance is a process that involves public and private sectors at the same time and also governance is not a formal institutions but is reliant on continual interaction.

## II. Concept of Global Governance:

In modern era, every country depends on the other in one way or other. National security and economic development have brought the nations together. "The scientific and industrial revolution and the extraordinary development of facilities for transporting men and merchandise and for communicating ideas led to an increase in trade, establishment of a single economic area, the international division of labour and a sense of universal community. The advance of democratic ideas, the belief that all human beings were of equal value, fostered the notion of egalitarian participation by all States in international organisations responsible for ensuring peace and progress".<sup>5</sup> The 20<sup>th</sup> century witnessed two world wars, which were highly destructive of life as well as material. These two wars shook the conscience of the world and highlighted the need for peace and co-operation. The first attempt towards achieving this aim was in the form of League of Nations after the First World War. This was of course, a failure, as it could not avert the Second World War. The search for peace culminated in the form of United Nations Organisations (UNO after the Second World War. The UNO has

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<sup>5</sup> Pierre Gerbet, "Rise and Development of International Organization: A Synthesis" in Georges Abi-Saab, ed., *The Concept of International Organization* (Paris: UNESCO, 1981), p.31

established various specialized agencies in different fields. There has been a gradual but a sustained growth of the numbers of international organisations in the last five decades in various spheres.

The definitions of an international organisation is a formal, continuous structure established by agreements between members, from at least two sovereign States with the aim of pursuing the common interest of the membership, covers a wide range of institutions, even if profit making associations are included.<sup>6</sup>

The main difference between the kinds of international organisations is those are inter-state or inter governmental and those whose membership is non-governmental.<sup>7</sup>

The first type of international organisations are Inter-Governmental Organisation (IGOs) .An IGO has two or more state as members and acts under a “constituent instrument” such as a constitutions, treaty, charter, or governing council. These documents set forth the purpose and functions, the decision-making process and structure and provision for regular meetings, a permanent headquarters, and a staff. These IGOs, were set up to achieve to socio-economic development. The examples of this kind of IOs are UNO, International monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD), etc.

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<sup>6</sup> Clive Archer, *International Organizations* (London: Routledge, 1995), p.38

<sup>7</sup> Ibid p.38

The other types of IOs are the organisations, which were set, up by non-state actors either individual basis or group basis. These organisations were established to fulfil the different objectives such as social and humanitarian services. They are playing and very active role during the time of natural calamities like earth quake, flood etc. Red Cross, Amnesty International, World Watch etc are the examples of this type of IOs.

These IOs work closely with the organisations and institutions at national level. The national level organisations include both governments' administrative machineries and other NGOs, which have its presence within a particular country. Some of the government departments act as nodal agencies to international organisation for implementing their various programmes. Similarly, some NGOs have their activities in a small town but have direct or indirect linkage with IOs.

These IOs and national level organisations and institutions depend on each other for resources, technology, man power, institutional and legal support etc. These four kinds of organisations working in a systematic and planned way for a common goal are termed as global governance. In other words, "global governance refers to formal and informal sets of arrangements for managing common issues It implies that states and non-state actors work together to manage global affairs".<sup>8</sup>

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<sup>8</sup> Samuel M. Makinda, "Hedley Bull and Global Governance: A Note on IR Theory", *Australian Journal of International Affairs* (University of Queensland), vol. 56, no.3 Nov 2002, p.364

An effective and sustained co-ordination among these organisations assumes greater importance for solving many socio-economic problems.

### III. ENVIRONMENTAL PROBLEMS:

The environment can be observed as the totality man's surroundings. It is also defined as "the sum of all social, biological and physical or chemical factors which compose the surroundings of man".<sup>9</sup> Even though this definition gives us a proper understanding about environment but "the real environment includes much more than we sense in our ordinary day-to-day surroundings. Yet, we are in continuing interaction with this total environment in varying degrees of directness and intensity".<sup>10</sup>

#### (i) Sources of Environmental Problems:

The earth is the only planet that is known to support a vast diversity life. For millennia a natural balance was maintained among all organism, which sustain each other and performed their task in complete harmony. Then the evolutionary forebears of modern human beings appeared on the earth. It has "exploited the earth's natural resources and modified the environment for thousands of years, but in the last two centuries human impact has increased hugely in part because of population growth, in part because of technological

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<sup>9</sup> Gopal Bhargava, *Environmental Challenges and Ecological Disaster* (New Delhi: Mittal Publication, 1991), p.4.

<sup>10</sup> Lynton K. Caldwell "Environment: A New Focus for Public Policy", *Public Administration Review* (Maldan (USA)), vol.23, no.3, 1963,p.133.

changes and partly as a consequences of the way that development has been allowed to proceed".<sup>11</sup>

Now it is widely observed that the population growth, advancement of technologies and development activities are to be the main factors for environmental degradation. For most human history, the population of the world grew very slowly. But the current pattern of unprecedented growth only started to appear in the second half of the eighteenth century following the industrial revolution,<sup>12</sup> associated improvements in agricultural<sup>13</sup> and the advent of sanitation methods. Each year the number of human beings increased but the amount of natural resources with which to sustain this population to improve the quality of human lives and to eliminate mass poverty remains finite. "The size of a population and its rate of growth are considered as the principal factors in environmental degradation, since the faster the population increase, the more rapid the depletion of natural resources"<sup>14</sup>. Countries with higher population growth rates have experienced faster conversion of lands to agricultural, industrial and other purposes, putting additional pressures on land and natural habitat.

The technology and the development activities are the other two factors, which are more responsible for environmental problems. We are

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<sup>11</sup> C.J. Barrow, *Developing The Environment: Problems And Management* (London: Longman, 1995) p.xi

<sup>12</sup> Avijit Gupta and Mukul G. Ashal, *Environment and The Developing World* (Singapore: John Wiley and Sons, 1998), p.31

<sup>13</sup> World Communism On Environment And Development "Our Common Future" (New York: Oxford University Press, 1987), p.98

<sup>14</sup> O. P. Dwidevi, *India's Environmental Policies, Programmes And Stewardship* (London: Macmillan, 1997), p.150

living in the age of technology. As such technology is the single most factor that more than anything else has revolutionized the lifestyle and living standards of modern man as it exist today in economics, politics and social life. Technology remains the cornerstone of modern culture of industrialisation, commercialisation and urbanisation. Man by his continuous and consistent struggle has “acquired the tremendous technological power to acquire, build and manufacture in the endless pursuit to improve his lot”<sup>15</sup>

By using these technological powers a large-scale developmental activities have been undertaken both in Western and developing countries. In Western countries these activities started from the period of Industrial Revolution. The governments of the newly independent developing countries of Asia, Africa, and Latin America (these countries are also called third world countries) have actively intervened in economic development activities.

These development activities are often involves the deliberate modification of the natural environment. The speed and the way in which these activities were undertaken are not gradual and slow, but unimaginable. In the words of Manfred Luchs “man’s power to ruin and destroy the world around him have come to rival the elemental forces of nature- not perhaps in final magnitude and slow gathering effect, but quite certainly in swiftness and irrevocability”<sup>16</sup>.

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<sup>15</sup> Bhagava, n. 9 p.3

<sup>16</sup> Manfred Lachs, “The Challenges of the Environment” *International and Comparative Law Quarterly* (London), vol. 39 July 1990,P.633

**(ii) Consequences of Environmental Problems:**

The above-mentioned three factors have disturbed the harmonious and healthy relationship between men and his environment to a large extent. The damages caused by these factors are not only enormous and unprecedented but also irreversible and irreparable. The extensive environmental degradation in the last few years has heightened concern about the global environment. The problematic areas include acid rain, soil erosion, water and air pollution, global warming, ozone depletion, deforestation, desertification, etc.

This large-scale destruction of ecological system and the deterioration of environmental quality hinder the further economic and industrial development. In these aspects, Allan Schnaiberg gives three central dialectics

1. Economic expansion of societies necessarily requires increased environmental extraction;
2. Increased levels of environmental extraction inevitably lead to ecological problems, ranging from the disorganisation of natural biotic systems to the depletion of fixed resources; and
3. These ecological problems pose potential restrictions on further economic expansion.<sup>17</sup>

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<sup>17</sup> Allan Schnaiberg, "Social Syntheses of the Societal -Environmental Dialectic: The Role of Distributional Impacts" *Social Science Quarterly*, vol. 56, no.1, 1975, p.5



World Bank also acknowledges this view when it says, “environmental degradation has three damaging effects. It harms human health, reduces economic productivity, and leads to the loss of amenities”.<sup>18</sup>

#### **IV. Global Environmental Governance (GEG):**

Now humanity has reached a critical juncture where protection of environment becomes necessary for the very survival of human beings. This situation has created awareness all over the world about the need for environmental protection.

In order to address the various environmental problems, different kinds of mechanism were devised in the 1960s and 1970s through in the form of institution, protocols, agreements etc. In the early 1980s the World Commission on Environment and Development introduced the concept of sustainable development. *Our Common Future*, the commission’s final report, defines sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.<sup>19</sup>

##### **(i) Concept of GEG:**

To protect the environment both State and non-State actors are working at different level through various ways and means is called as Global

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<sup>18</sup> World Bank Report 1992 “*Environment and Development*” (New York: Oxford University Press, 1992) p.44

<sup>19</sup> Gupta and Ashel, n.p. 12 p.286

Environment Governance (GEG). It is not a rigid hierarchical structure. A soft hierarchical structure is emerging for planning and overseeing environmental issues at the global level and also for linking them with development”.<sup>20</sup> GEG includes not only the number of instruction but different treaties, protocols, agreements etc. In other words “GEG is currently based on an intricate web of treaties, agreements and organisations. Many of the instructions and activities within these loose structure address fundamentally similar, and often related, issues”.<sup>21</sup>

Moreover, the institutional structure of international environmental co-operations include not only those intergovernmental or non-governmental organisations established for environmental protection, but also the more numerous bodies, governmental and non-governmental, including multinational corporations, that impact upon the global environment and whose co-operation must be obtained in defending the integrity of the earth.<sup>22</sup>

**(ii) Conference on Human Environment (Stockholm Conference):**

Although people were expressing concern for the environment as early as Industrial Revolution era, international action did not occur until after World War. Even then it was a piecemeal approach. By the mid-1960s the northern industrial countries were beginning to see the adverse impact of their technologies. Many environmental movements and organisations have

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<sup>20</sup> Ibid p.297

<sup>21</sup> Klaus Topfer, “Improving Global Environmental Governance”. *Synergy*, Accessed in [www.unep.org](http://www.unep.org), on 2 October, 2002

<sup>22</sup> Lynton Keith Caldwell, *International Environmental Policy: Emergence And Dimensions* (New Delhi: Affiliated East- West Press Private Limited, 1991), p.94

advocated reasonable, appropriate and sustainable use of natural resources. Third World countries were also realised the scope and intensity of environmental problems.

Basically environmental problems are trans-boundary in nature. For many issues it becomes clear that national action alone would not successfully address the environmental problems. "No matter how much nations try to protest, there is no avoiding the fact that the national sovereignty- the ability of States to control events within their territory- is undermined in a world where borders are routinely breached by pollution..."<sup>23</sup>

Secondly, "the idea developed that more than 70% of the biosphere lying outside national boundaries-the oceans, the polar regions, the atmosphere- and even outer space are not *res nullius*, to be abused at will, but rather *res communis*, a commons of man land requiring protection".<sup>24</sup> For this a unified comprehensive framework of international environmental laws, and machinery for developing such laws and co-ordinating environmental resources were needed.

Finally, the multi-dimensional problems to the human environment have necessitated response in kind, both in terms of legal instruments as well as effective institutional structures. Since the formation of the UNO, there has been a significant proliferation in the number of new states on the

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<sup>23</sup> Hilary F. French, "Strengthening Global Environmental Governance" in *State of The World 1992. A World Watch Institution Report on Progress Toward A Sustainable Society* (New Delhi: Horizon India Books, 1992), p.157

<sup>24</sup> Mark Allan Gray, "The United Nations Environment Programme: An Assessment" *Journal Environmental Law* (Oxford University Press, U K), vol. 20, no 2, 1990, P.292

international scene. This has put its own pressure in terms of addressing the environmental issues.

In this context the UN General Assembly decided at its XXIII session in 1968 (Resolution 2398) to convene a Conference on the human environment. The Conference was called “to serve as a practical means to encourage and provide guidelines for action by governments and international organisations designed to protect and improve the human environment and to remedy and prevent its impairment, by means of international co-operation, bearing in mind the particular importance of enabling developing countries to forestall occurrence of such problems”.<sup>25</sup>

This decision of UN is considered to be a turning point in the history of GEG. Because “ at the time when the Conference was convened there was a rather vague concept of the need for the protection of the environment, at least at the level of international law and politics. The Conference gave concrete expression to the then vague environmental concern and created momentum for further concerted action. The work of the Conference provided, in effect, the basis of all subsequent developments”.<sup>26</sup> The Conference was held in Stockholm from June 5 to 18, 1972. This Conference originally intended to be a technical and scientific meeting, but expanded in the planning process to cover broader policy issues. Delegates from 113 states and over 400

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<sup>25</sup> G R J Timagenis, *International Control of Marine Pollution* (New York: Ocean Publication, 1980) p.84

<sup>26</sup> Ibid p.83

international agencies... attended the Conference and discussed wide topics.<sup>27</sup>

The former Soviet Union and most of its allies did not attend the conference.<sup>28</sup>

**(iii) The Outcome of The Conference:**

The Conference produced a 'declaration of 26 principle and action plan of 109 recommendations for future actions to be taken by government and international bodies for the preservation and improvement of the human environment, mainly at the international level. One interesting aspects of this Conference is that it called for a first-ever international environmental management body to implement the Action Plan. The General Assembly later established this management body as UNEP.<sup>29</sup> This Conference is the landmark in the process of protecting the human environment. It is a pioneering and outstanding effort by the international community. "Given the revolutionary nature of the undertaking, the enormity and complexity of the subject matter, and the fundamental political disagreements among the states represented, the Stockholm Conference itself should be considered a success."<sup>30</sup>

**V. United Nations Environment Programme:**

**(i) Origin of UNEP:**

The United Nations Environment Programme (UNEP) is functioning as a focal point in the process of GEG. All the other environmental related

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<sup>27</sup> Gray n. 24 p.293

<sup>28</sup> Global Environmental Outlook-3, United Nations Environment Programme, Nairobi 2002 (Kenya), P .4

<sup>29</sup> Gray n.24, p.294

<sup>30</sup> Ibid, p.294

organisations and institutions are performing numerous functions in co-ordination with UNEP. By the consistent efforts of UNEP and others there are vast number of treaties, agreements and protocol signed between different governments. So UNEP is considered as important organisation in GEG.

The UNEP institutionalises the conceptual framework of the Stockholm declaration that environment is common concern of mankind. In accordance with the Conference's recommendations, the General Assembly, in Resolution 2997 (XXVII) of 15 December 1972, established four pillars as the basis of the new environment programme.<sup>31</sup> These are the Governing Council, the Environment Co-ordination Board (ECP), a small Secretariat and the Environment Fund. UNEP became the first major UN environmental institution.

Although conceived as the centrepiece of the UN system for the protection of the global environment, UNEP was born as just a programme, a subsidising organ of the UN-General Assembly.<sup>32</sup> UNEP reports to the General Assembly through Economic and Social Council (ECOSOC) of UN instructing and guiding the council, the General Assembly controls the interrelated issues of development and the environment. UNEP's headquarter is situated in Nairobi (Kenya). UNEP would be the first global United Nations secretariat to be situated in a developing country.<sup>33</sup>

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<sup>31</sup> UNEP Annual Report 1992, "Twenty Years Since Stockholm", Nairobi, 1992, p.4

<sup>32</sup> Bharat H. Desai, "Revitalizing International Environmental Institutions: The U N Task Force Report And Beyond" *Indian Journal Of International Law*, (New Delhi,) vol. 40, no. 3, 2000, p.456

<sup>33</sup> n.31 p.4

**(ii) Administrative structure of UNEP:**

The Governing Council is the highest policy making body of UNEP. It consists of fifty-eight members states elected for a period of four years by the General Assembly according to a geographical distribution. The governing council meets every two years. The main functions of the council are to promote international co-operation in the field of environment and provide general policy guidelines for the direction and co-ordination of environments programmes within the UN system. The Executive Director and his secretariat assist the council and administer the environment fund under its direction. The director also advises inter-government and UN-bodies on the formulation and implementation of programmes. ED also involves in assessing the programme effectiveness. At the council's request and his own initiative, the ED consults with governments and UN agencies and convenes informal meetings with scientific and legal experts. These interactions often produced reports, studies, recommendation and planning proposals.

Another important pillar of UNEP is the Environment Co-Ordination Board (ECB). The ECB was made up of the executive heads of the UN agencies and chaired by UNEP's executive director. The ECB was supplemented by the supporting mechanism of environmental focal points within each agency organisation. In 1978, when administrative committee on co-ordination, chaired by the secretary-general of the United Nations, assumed the functions and responsibilities of the ECB each agency appointed

a Designated Official for Environmental Matters (DOEM) to work with and advise the executive director.

The Environment Fund is a voluntary fund, set up to finance “wholly or partly the costs of new environmental initiatives undertaken within the United Nations system. The governing council issues the guidelines for proper utilisation of this fund.

There are number of division with a specialized areas are working under the UNEP’s headquarters in Nairobi such public relations, early warning, technology and development, policy implementation etc.

UNEP maintains six regional offices. In 1973, the Governing Council approves the establishment of regional offices and mandate them to work closely with the governments in the region, regional communities and other global bodies. In 1974, it is agreed that UNEP’s resident representatives shall represent UNEP in the countries to which they were accredited. At present UNEP have six regional offices all over the world. These are Regional Office for Africa (ROA), Regional Office for North America (RONA), Regional Office for Europe (ROE), Regional Office for Latin America and the Caribbean (ROLAC), Regional Office for Asia and the Pacific (ROAP) and Regional Office for West Asia (ROWA).

These regional offices initiate and promote UNEP objectives and ensure that all the programmes formulated by UNEP meet the specific needs of the countries and regions. They also provide a focal point for building



national, sub-regional and regional partnership and enhancing local participation in UNEP initiative.<sup>34</sup>

**(iii) Functions of UNEP:**

UNEP serves a focal point for environmental action within the UN system. UNEP aims to encourage governments and the private sector to develop and adopt policies and practices that are cleaner and safer, make efficient use of natural resource.

UNEP's mandate is the promotion of environmentally sound patterns of development and management, whether social or economic. It can help to find solutions to the specific environmental problems of governments and also to co-ordinate international approaches to regional and global problems, particular in developing countries. It encourages an interdisciplinary approach. UNEP initiates various programmes in different subject areas. "According to Governing Council decision 15/1 adopted in 1989, the programme covers the following subject areas, which are not listed in any particular order of priority:

Protection of the atmosphere by combating climate change and global warming, depletion of the ozone layer, and Trans boundary air pollution; protection of the quality of fresh water resource; Protection of ocean and coastal areas and resources; protection of land resource by combating

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<sup>34</sup> For details: [www.unep.org](http://www.unep.org) accessed on Feb. 5, 2003-03-22

deforestation and desertification; conservation of biological diversity; environmentally sound management of biotechnology; environmentally sound management of hazardous wastes and toxic chemical; protection of human health conditions and quality of life, especially the living and working environment of poor people, from degradation of the environment”<sup>35</sup> In these vast ranges of areas, special attention has also been given to some areas.

A three-fold Action Plan was developed at Stockholm conference to provide a framework to address the environmental problems. UNEP is working on the above-mentioned subject areas based on this three-fold action plan.

The first is environment assessment, which includes monitoring, research, information exchange, evaluation and review. The second is ‘environmental management which includes goal setting and planning, international consultation and agreements. The third is support measures, which include environments law, environmental education training, information and technical assistance.<sup>36</sup>

UNEP’s principal and most comprehensive environmental assessment programme is earth watch. This programme is designed to identify and measure international and environmental problems. In 1995 UNEP launched the Global Environment Outlook (GEO). GEO is the report of the process of environment assessment. It is issues by UNEP every two-three years. On the

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<sup>35</sup> UNEP Annual report 1992 n.31 p.60-61

<sup>36</sup> Ibid p.61

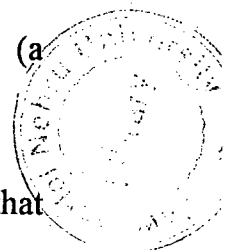
assessment front a number of programmes are going on such as global international water assessment, millennium ecosystem assessment etc.

On the second stage based on the assessment of environmental problems, UNEP is setting out of objectives and strategies for the programme. The it formulates specific actions. This material is then presented to governments, international and non-governmental organisation, intergovernmental organisation, supporting organisations and other. At this stage UNEP calls for summit at the regional as well as global level. A broader consultation will take place on the specific targets which have to be achieved in the future same times agreements will also be singed and Conventions and Protocols will be adopted. For example UN Conference on Environment and Development convened in Rio (Brazil) in 1992 adopted agenda 21 (a programme of activities to promote sustainable development).

On the third stage, identification of those areas of the programme that are selected for support from the Environment Fund. Technical assistance, environmental education, training programme, etc will be carried out at this stage. There is large number of environmental related programmes and projects are going on all over the world with direct or indirect control and direction of UNEP. UNEP is performing all these functions with effective interaction, collaboration, co-operation and partnership with a large number of organisations and institutions both governmental and non-governmental at various levels.

Among those programmes, one of the most important and successful programmes is Regional Seas Programme (RSP). UNEP has made its RSP as

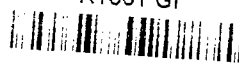
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an indispensable part of the adoption by participating governments of a series of unique legal agreements designed to protect shared environment interest. These regional agreements have been extraordinary effective in engaging governments in protecting the environment. Unlike the global environmental conventions, these regional conventions are comprehensive covering issues ranging from chemical wastes and coastal development to the construction of marine animal and eco-system. Their limited geographical focus enable them to channel the energies of a wide range of interest groups on solving what are after all, a series of interlinked problems. Details of RSP with special reference to two regional seas (the Kuwait Region and the Red Sea and Gulf of Aden) in West Asia will be analysed in the third chapter. The second chapter analyses the various environmental problems in west Asia, and UNEP's programmes for this region.

## **VI. Conclusion:**

Without a greater participation and involvement of the people, no developmental and promotional efforts of the government will succeed. It is necessary to expand the base of policy formulation as well as implementation. In the changing nature of social conditions the effective co-operation between the government and the civil society is not only inevitable but also indispensable, Governance is an effective mechanism, which institutionalises this co-operation for the betterment and overall development of the society. Governance is also used to describe the arrangement and administration of various affairs and issues both at local as well global level.

For example global governance is the management of global issues by various institutions at the global level, which includes both states and non-state actors. It is assumed that global environmental governance is the management and administration of environmental issues by a vast network of institutions at the global level. In the era of globalization and liberalization, a better understanding and co-operation between the government, and international agencies assumed greater significance for addressing to a wide range of socio-economic problems.

Today environmental problems are one of the most dangerous problems, which are threatening the very survival of humanity. Due to its complexity of nature and its global dimension, governments individually find it difficult to effectively address these problems. This is due to lack of appropriate institutional mechanism, resources and technology especially among the developing countries. So a comprehensive and sustained co-operation between the governments and other agencies can only enable to permanently solve these problems.

UNEP plays a greater role in co-ordinating various agencies, institutions and organisation towards protecting the human environment. UNEP is also implementing a large number of programmes and projects all over the world in a systematic manner. UNEP has achieved its purpose to some extent but many things need to be done. Considering the nature of the problems, the responsibilities of UNEP are immense. So the governments and civil society should work more with UNEP to ensure the survival for the humanity.

**CHAPTER II**

**ENVIRONMENTAL PROBLEMS**

**IN WEST ASIA AND**

**UNEP'S ROLE**

Environmental problems are a global phenomenon and the West Asian region is not an exception. But the environmental problems in West Asia have a number of distinct features. This chapter discusses the various sources of environmental problems in the region. It also analyses the environmental consequences of developmental activities. Besides these, it also reviews the efforts made by the governments at different levels and United Nations Environmental Programme's (UNEP) initiatives, project and programmes concerning the region.

The West Asian region comprises of two sub-regions namely the Arabian Peninsula (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates (UAE) and Yemen) and the Mashriq (Iraq, Jordan, Lebanon and Syria, and West Bank and Gaza). The four marine water bodies namely the Mediterranean Sea, the Red Sea, the Arabian Sea and the Persian Gulf, surround the region. The region has many unique social, economic, political and geographical characteristics. This region is one of the cradles of ancient civilisation and of urban culture. This land bridge among three continents has been of fundamental strategic importance throughout the centuries.

## **I. CLIMATE TOPOGRAPHY AND MINERAL RESOURCES**

Most part of the West Asian region is harsh and arid with dismal levels of rainfall except in the coastal and mountain regions. Water is the most precious and limited natural resource in West Asia. There are no reliable

surface water supplies. The region depends entirely on groundwater and desalination plants to meet its requirements. This region also has some of the largest and the most barren deserts on earth. Fortunately not the entire region is desert and wasteland. The Fertile Crescent stretches along the Levantine Coast of the Mediterranean up to the foothills of the Taurus Mountains in Turkey and down again through the Tigris and Euphrates valleys in Syria and Iraq to the Kuwait region. The irrigation systems of the river valleys such as Tigris, Euphrates, and Nile sustain some of the most densely populated agricultural areas in the world.

There are significant variations in the climatic conditions of the region. Four main types of climate prevail. These are the Mediterranean type, Continental type, Desert type and Sub-Equatorial. The Mediterranean type is characterised by hot, rainless summers and cool, wet winters. It occurs on the coast of Palestine, Lebanon, Syria, Turkey and the Northern coast of Egypt. The Continental type is with colder winters, hotter summers, and a lower average rainfall. It occurs in Central Turkey, Eastern Syria, Iraq and southern Iran (Khuzistan). Extreme instances are in central and southern Iraq and Khuzistan, with maximum summer shade temperatures in the neighbourhood of 120 F. The desert, which is similar to the continental but with lesser or no rainfall. It prevails in most of Egypt, Northern Sudan and Arabia. Winters are generally cold, though hot for long, towards the centre of the landmasses. The



Sub-Equatorial, with wet summers and dry winters is the climate of southern Sudan; the South West Arabia (Yemen) is a typical monsoon type.

On the basis of land resources West Asia may roughly be classified into three geographical zones namely, Northern Zone, Intermediate Zone and Southern Zone. Northern Zone is a zone of rough, geographically young, folded mountains connected to the European and Himalayan mountain zones at either end. Minerals other than petroleum are to be found here. Intermediate Zone is a more complex and complicated zone among the three zones. It extends from the coastal range of Libya, across the Sinai Peninsula around the Fertile Crescent north of Arabia and south of Anatolia- Iranian plateau, and down to the lowlands along the Kuwait region. The Persian Gulf and its basin represent an unfolded sedimentary area – the world's richest known storehouse of petroleum wealth. These kinds of “ Climatic conditions and topographical characteristics have through the ages determined the general occupation of the population, set rigid limits to its size, and fixed its distribution”.<sup>1</sup>

“The resource base of a country or region largely conditions its patterns of industry and trade. Raw materials often control the form of industrial activity, while surpluses and deficiencies dictate the commodities of

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<sup>1</sup> Philip K. Hitti, *The Near East in History: A 5000 Year Story*, (London: D. Van Nostrand Company, inc, 1961), P. 10

trade.”<sup>2</sup> Although a wide range of minerals found in West Asia as a whole including gold and silver, not all of them are now of commercial importance. Clays and boiling stones, as well as lime stones suitable for cement making, are wide spread. The region is the world’s third producer of phosphate, with a 35 percent share of aggregate output.<sup>3</sup>

Phosphate rock is produced chiefly in the vicinity of the Dead Sea, in Israel and Jordan, though a large quantity is extracted in parts of Upper Egypt accessible from the Red Sea or the Nile. Metal ores, which are most important and basic to a comprehensive industrial structure, are mainly associated with the Fold Mountains sweeping through Iran and Turkey, though a small concentration is also found in the folded area of Central Arabia and some sizeable deposits are situated in Libya and Egypt. “Chromites is wide spread in the northern part of the region, and production from Iran and Turkey together formed 15.5 percent of the world’s output in 1970, making chrome the region’s second most important mineral in world terms after petroleum”.<sup>4</sup> Although iron ores are found in several parts of this region, Iran and Turkey are great producers. Lignite is also largely found in Turkey and Iran.

However, the variety of minerals and the scale of extraction mean that Iran and Turkey have the most diverse resource bases in the region. The other

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<sup>2</sup> Peter Beaumont, General H. Black and J. Malcom Wagstaff, *The Middle East: A Geographical Study* (London: John Wiley and Sons, 1976), P. 238.

<sup>3</sup> “Arab Mineral and Agricultural Potential” *The Arab Economists* (Beirut) Vol.12, No.129, June 1980, p. 15.

<sup>4</sup> Beaumont, Black and Wagstaff, n.2, p. 240

countries of the region possess fewer minerals. All the other required mineral resources have to be imported for industrial activities.

## **II. SOURCES OF ENVIRONMENTAL PROBLEMS IN WEST ASIA:**

The West Asian region has undergone major demographic change and socio-economic transformation, including substantial agricultural and industrial development, since oil was discovered at the beginning of the 20<sup>th</sup> century. The discovery of oil in the early 1930s heralded a new economic and environmental chapter in the region's history. The eastern areas of the Arabian Peninsula and northern Iraq emerged as the main sources of fossil fuel (Oil and Gas) in the world. With this came a period of rapid socio-economic development with unprecedented rates of urbanisation, hastily-planned industrialisation, mass immigration towards the oil-rich States from other parts of the region, as well as an influx of expatriates. These trends have intensified during the past 30 years. This reliance on oil, abetted by the aridity of the region has produced a distinct pattern of environmental degradation.

Now the region is facing a number of major environmental issues. "Desertification, resource degradation, soil erosion, water-logging and salinity are examples of environmental developments at work in the ...region. Some of these developments are of a natural origin, but many changes are man-

made”.<sup>5</sup> Scarcity of water, arid and harsh nature of the region and desertification are the natural problems due to geographical location of the region. But the pattern in which the industrial activities are undertaken, nature and speed of urbanisation and the scale of migration are the man-made problems.

Oil is the single most factor for initiating large-scale developmental activities in the region. In this respect, the countries of West Asian region occupy a place of importance in global environmental perspective and thus must fulfil certain responsibilities, both regionally and globally. Among several factors, two important factors warrant an analysis of these countries as a group. “First, because it shapes economic behaviour, economic policies, and socio-economic transformations (including urbanisation patterns), oil has important implications for the quality of the environment in many of these countries. Second, the aridity of land and the scarcity of water play significant roles in the region’s environmental profile. The interaction between these two factors produces a pattern of environmental degradation that is unique to the region”.<sup>6</sup>

Population growth, technology and development activities are the main factors responsible for the deterioration of global environment.

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<sup>5</sup> A.A. El-Sherbini, “Recent Trends in Agricultural Development in the Near East” in Elie Kedourie and Sylvia G. Haim, eds. *Economic History of the Middle East*. (London: Frank Cass, 1988). P. 97.

<sup>6</sup> Hamid Mohtadi, “Environmentally Sustainable Development in the Middle East and North Africa” in Nemat Shafik ed., *Prospects For Middle Eastern North African Economies: From Boom to Bust and Back?* (Houndmills: Macmillan, 1998), p.265.

Industrialisation and urbanisation are two primary determinants of the ecological profile<sup>7</sup> of the West Asian region. “Each has an impact on the quality of air and water, and together they influence the type of natural resource degradation that occurs throughout the region”<sup>8</sup> In addition to these two factors, the rapid population growth and large-scale migration of labour force have worsened the environmental quality in the region. Industrialisation, urbanisation, population growth and migration, are the four factors, which are responsible for environmental degradation. They are inter-related and inter-connected. Oil is the core source of most of the environmental problems in West Asia. The above-mentioned factors are the product of oil resources to a large extent. For example oil revenues enabled the governments in this region to invest more in social sectors. That has in turn improved the living standard. The infant and maternal mortality rates have been brought down very significantly. The life expectancy has also improved. All these factors will be discussed separately in this chapter.

The source, nature and intensity of environmental degradation differentiates the region from rest of the world. This is not because of the interaction between man-made and natural environmental problems but because of the magnitude and speed with which this interaction takes place.

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<sup>7</sup> Ibid. p. 265

<sup>8</sup> Ibid. p. 265

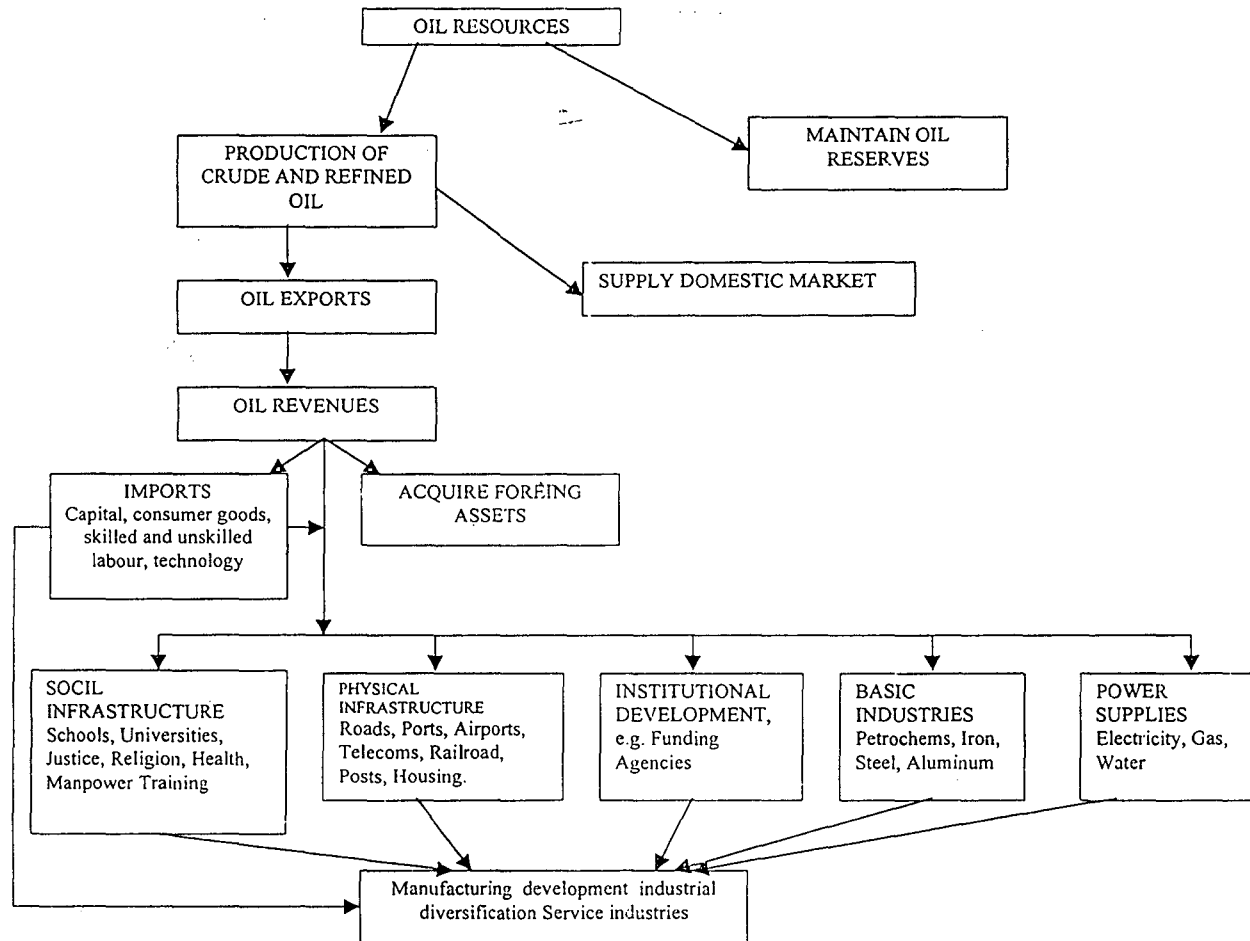
## **i INDUSTRIALISATION**

Industrialisation is a complex process and comprises a number of inter-related dimensions. Historically, it represents a transition from an economy based on agriculture to one in which manufacturing represents the principal means of substance. In other words, "Industrialisation brings about a transformation of the economy through a change in its structure. As development takes place, employment in the industrial structure expands and that in agriculture shrinks".<sup>9</sup> Changes take place not only in the labour force but also in the contribution to national income. In the beginning agriculture contributes more than any other sector to the national income. The contribution of agriculture sector declines gradually when industrialisation proceeds and its share increases.

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<sup>9</sup> S.Krishna Aiyer, "Industrialisation and Economic Development", *Mainstream* (New Delhi) Vol.10, n. 32, 8 April 1972, p. 25.

*THE INDUSTRIALISATION PROCESS*



Source: John R. Presly, *A Guide to the Saudi Arabian economy*, (Hong Kong: Macmillan, 1984), p. 53

Throughout its history West Asia has been dependent on agriculture for its prosperity. Only in the second half of the 20<sup>th</sup> century did the petroleum industry fundamentally alter this situation.

“From 1945 onward, and with increasing speed, the majority of the Gulf Arab States were transformed from a collection of small towns reliant on fishing, herding and trade to some of the world’s leading exporters of oil with high per capita incomes, an unusual level of welfare services, and the beginnings of a modern petrochemical industry”.<sup>10</sup>

The oil exporting countries obtained increasing revenues from two sources, first a rapid growth in production until the early 1970s then an equally rapid rise in price, particularly during the two price explosions of 1973-74 and 1979-80.<sup>11</sup>

These incomes were in excess of both the immediate needs of these economies and the opportunities available to them for short-term spending on consumption and investment. The result was that these countries began to accumulate huge reserves. So the situation in these countries especially in the Gulf States was so peculiar that they were in many ways economies in reverse. For them generating income was less of a problem than spending it.<sup>12</sup>

Under these kinds of circumstances, oil exporting Gulf countries decided to initiate industrialisation process. The main objectives of their industrial planning were to reduce dependence on the single source of income from the export of oil and natural gas and to diversify the economic resources

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<sup>10</sup> Roger Owen and Sevket Pamuk, *A History of Middle East Economies in the Twentieth Century* (London: I.B. Tauris Publication, 1988), p. 202.

<sup>11</sup> *Ibid.* p. 203

<sup>12</sup> Hazem Beblawi, *The Arab Gulf Economy in a Turbulent Age* (London: Croom Helm, 1984), p. 117.



in order to establish a self-sustained economy. This move was in a complete contrast to most of the developing countries' industrialisation strategy.

There was a total lack of natural and human resource. The other pre requisite for industrialization such as infrastructure, road, transport network, communication also lacked. But in other developing countries in a relative sense the problem was only finance. In other word, Gulf Countries lacked all the preconditions and prerequisites for industrialization except finance. The governments in the region ignored these tremendous obstacles on the road to a mature industrial economy.<sup>13</sup>

An efficient infrastructure is the backbone of an economy and necessary for a rapid and sustained economic growth. Infrastructure categories into two kind one is physical infrastructure which includes roads, ports, airports, power and other is social which includes schools, hospitals etc.

The countries started to undertake large-scale infrastructural developmental activities of both physical and social in the process of achieving industrialisation (chart). The governments made huge investment in infrastructure. For example in Saudi Arabia from 1972 to 1975, 41 percent of the total budget was allocated to infrastructure. During 1975 to 1980 it was increased to 49.3 percent (table).

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<sup>13</sup> Ramon Knauerhase, "The Oil Producing Middle East States" *Current History* (Philadelphia), Vol. 76, No. 443, 1979, p. 10.

**Table No.2.1**

**The Sectoral Distribution of Development Expenditures (Saudi Arabia)**

Year	Human Development Value (SR billions)	Human Development Percentage	Economic Resources Percentage	Infrastructure Percentage
1970-1975	10.5	30.9	27.7	41.1
1975-1980	78.6	22.6	28.0	49.3
1980-1985	176.2	28.2	30.7	41.1
1985-1990	177.0	50.7	20.4	28.9
1990-1995	218.3	66.6	10.6	22.8
1996	40.9	66.4	10.0	23.6
1998	65.3	68.5	-	-

Source: Rayed Krimly, "The Political Economy of Adjusted Priorities: Declining Oil Revenues and Saudi Fiscal Policies" ,*The Middle East Journal* (Washington D.C), Vol. 53, No.2, 1999, p. 265.

Due to the massive oil revenues, all the required raw material technology and manpower were imported on a large scale. "Ports lying on the Arabian Gulf have witnessed basic changes in order to cope with the needs of the region."<sup>14</sup> "New Ports have been built at Aqaba, Dammam and Jeddah, Hudayda, Kuwait, Latakia, Tel Aviv, etc., while the older ports have been

<sup>14</sup> "Remarkable Expansion in Arab Ports" *The Arab Economist*, Vol. 10, No. 108, September 1978, p. 9-10.

enlarged.<sup>15</sup> In Saudi Arabia between 1970-1980 “2000 villages electrified, 15,000 kilo meters paved roads were built, 700000 telephones were installed and 30000 housing unit were constructed.”<sup>16</sup> In the seventies and thereafter, the oil exporting countries have experienced “a swift acceleration in their economic development”.<sup>17</sup> These developments severely affected the environment in the region.

## ii. URBANISATION

Urbanisation means an increase in the proportion of the urban population to the total population over a period of time.<sup>18</sup> It is an important characteristic of population distribution and economic development. Urbanization may variously be defined as (a) the growth in number of people living in urban areas, (b) the growth in the proportion of people living in urban areas, (c) the growth in the number of urban centres, (d) the socio-economic progress involving an increase in Urban life, (e) the physical expansion of urban land use, or (f) combinations of the above. Any one of the five processes may occur independently without corresponding change in other four.<sup>19</sup>

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<sup>15</sup> Charles Issawi, “Growth and Structural Change in the Middle East”, *The Middle East Journal*, Vol. 25, No.3, 1971, p. 315.

<sup>16</sup> Saad Eddin Ibrahim, *New Arab Social Order: A Study of the Social Impact of Oil Wealth* (Boulder: West view Press, 1982), P. 105.

<sup>17</sup> Mahmoud H. Fouad, “Petrodollars and Economic Development in the Middle East” ,*The Middle East Journal*, Vol. 32, No.3, 1978, p. 307.

<sup>18</sup> K.V. Raju, “Urbanization in Asia – Issues and Challenges” *Monthly Pubic Opinion Surveys* (New Delhi), vol. 41, No.8, May 1996, p. 37.

<sup>19</sup> John I. Clarke, “Contemporary Urban Growth in Developing Countries”, in John I Clarke and Howard Bowen-Jones eds., *Change and Development in the Middle East* (London : Methuen, 1981), pp. 154-170.

Increasing urbanisation is a universal phenomenon<sup>20</sup> and it becomes a complex process in the modern world. “ By the turn of the century, nearly half of the world’s population is estimated to be living in urban areas. While three-quarters of people are expected to be in urban areas in more developed regions, it would be about 40 percent in less developed regions”.<sup>21</sup>

In developing countries urbanisation is proceeding without commensurate growth in industrialisation and rise in the level of over all economic development. This rapid urbanisation is occurring not only because there is a large pool of potential migrants to the cities but also because rates of natural increase (an area’s birth rate minus its death rate) are not substantially lower in urban areas than in rural areas.

Many of the world’s first human settlements were formed in West Asia. Alexandria, Baghdad, Damascus and Jerusalem have existed for thousands of years. Urban culture had evolved in the region long before other regions had sizeable cities.

Just over one fourth (27 percent) of the population was urban in 1950, but by 1990 an estimated 57 percent lived in urban areas. (See Table). More than three fourth of the populations of Bahrain, Kuwait, Lebanon, Qatar, the United Arab Emirates, Saudi Arabia and Israel live the in the Urban areas. Iran, Turkey, and Egypt with larger population and extensive land, are still 40 to 55 percent rural. In contrast, Oman and Yemen, with 11 and 29

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<sup>20</sup> M.S. Rathore and Others, “Urban Water Supply in Rajasthan: Problems and Prospects”, in M.S. Rathore and V. Ratna Reddy, ed., *Urban Water Management*, (New Delhi: Rawat Publication, 1996), p. 11.

<sup>21</sup> C. Ramachandraiah, “Urban Environmental Degradation: A Study of Air Pollution in Hyderabad”, *Indian Journal of Regional Science* (Calcutta) ,Vol. 30. No.2, 1998, p. 98.

percent of the population living in urban areas have the lowest levels of urbanization in this region (Table 2.2)

**Table.2.2**

**Percentage of Population in Urban Areas in West Asian Countries, 1950 and 1990**

Country/ Territory	Percent Urban	
	1950	1990
Bahrain	64	83
Egypt	32	44
Gaza	51	94
Iran	27	57
Iraq	35	72
Israel	65	92
Jordan	35	68
Kuwait	54	96
Lebanon	23	84
Oman	02	11
Qatar	63	19
Saudi Arabia	16	77
Syria	31	50
Turkey	21	61
United Arab Emirates	25	81
Yemen	06	29
Total	27	57

Source: Abdel R. Omran and Farzaneh, "The Middle East Population Puzzle", *Population Bulletin* (Washington D.C), Vol. 48, no. 1, July 1993, p. 20.

Growth has been most rapid in the regions more than 100 secondary cities (population between 1,00,000 and 1 million), which grew more than 50 percent faster than 19 largest cities (population of more than 1 million). The cities grew rapidly because of a large number of migrants from the rural areas and high rates of natural increase.<sup>22</sup>

“There is growing concern all over the world about the problems connected with urbanization...”<sup>23</sup>. The governments are unable to provide all the basic services such as transport, water supply, and health care system to the rapidly increasing urban population. Air, water and noise pollution have also increased rapidly and it have dramatic impacts on the life and health of city inhabitants.<sup>24</sup> The uncontrolled physical expansion of cities has also had serious implications for the urban environment and economy. Cities are often built on the most productive agricultural land, and unguided growth results in the unnecessary loss of this land. Energy is an important requirement to run modern urban system, which often involves burning fossil fuels, which in turn releases such greenhouse gases as carbon monoxide and etc. These emissions lead to global warming, which can cause climate change, rising sea levels, changes in vegetation and severe weather events.<sup>25</sup>

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<sup>22</sup> Bjorn Larsen, “Environmental and Natural Resources Management in the Middle East and North Africa” in Namat Shafik, n.6 p.294

<sup>23</sup> Raju, n.14, p. 38

<sup>24</sup> World Commission on Environment and Development, “*Our Common Future*” (New York: Oxford University Press, 1987) p. 240.

<sup>25</sup> Martin P. Bockerhoff, “An Urbanizing World” *Population Bulletin*, Vol. 55, no. 3, September 2000, p. 28.

### iii. POPULATION GROWTH

Population growth rates in West Asian region are among the highest in the world, second only to those in sub-Saharan Africa, although fertility rates have been falling, especially among the educated women in urban areas.<sup>26</sup> One of the most significant demographic characteristics of this region is the slow decline of fertility levels since the early 1950s. This is so in spite of the fact that in most of the countries there has been noticeable socio-economic development and consequently mortality rates have fallen rapidly during the last two decades.<sup>27</sup> Governments in the region have made huge investment in social sector since the seventies. This oil boom era has changed the demographic profile of the region subsequently in terms of size, age structure, literacy rate, skills generation, ethnic composition, immigration and social stratification.<sup>28</sup>

Abdel R. Omran and Farzaneh Routi have divided the region into four groups based on similarities in the trends in birth and death rates and then socio-economic settings.<sup>29</sup>

Group –1 Persistent high fertility and declining mortality in an intermediate-to-low socio-economic setting. Fertility in Jordan, Oman, Syria,

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<sup>26</sup> Valentine M. Moghadam, "Population Growth, Urbanization and Unemployment" in Deborah J. Gerner, ed., *Understanding the Contemporary Middle East* (Boulder: Lynne Rienner Publishers, 2000), p. 239.

<sup>27</sup> Prakash C.Jain, "The Changing Demographic Profile of West Asian and North African Countries" in Girijesh Pant ed., *The Political Economy of West Asia: Democracy, Demography and Economic Reforms* (New Delhi: Manak Publishers, 1994), p. 9

<sup>28</sup> Girijesh Pant, "Demography, Economic Reforms and Democracy in West Asia" in Pant n.28, p.27-28

<sup>29</sup> Abdel R.Omran and Farzaneh, "The Middle East Population Puzzle" *Population Bulletin*, vol.48, no.1, July 1993, pp. 5-9.

Yemen and the West Bank and Gaza has not shown much decline throughout the 20<sup>th</sup> century. Mortality on the other hand, declined sharply since 1950, although decline was not great in Yemen.

Group – 2 Declining fertility and mortality in an intermediate level of social-economic development: Egypt, Lebanon, Turkey and Iran form the second transition group. Their traditionally high fertility declined in the recent decades, primarily in response to advancement of women in the field of education and availability of family planning services. The mortality rates also declined due to socio-economic development

Group – 3 The Gulf Transition: High fertility amid rapidly declining mortality in a high socio-economic city. The Gulf stage of Bahrain, Iraq, Kuwait, Qatar, Saudi Arabia, and the UAE form the third group. Until 1950s, these countries had high fertilities and mortality. Advancement in health care system and education led to decline of mortality rates.

Group - 4 The European Style Transition: Low fertility and mortality in an above average socio-economic setting. Israel is the only country in the region, which comes under this group.

The total population of West Asia (excluding the Occupied Palestinian Territories) has almost tripled from an estimated 37.3 million in 1972 to 97.7 million in 2000, increasing less in the Mashriq than the Arabian Peninsula. The population of the Occupied Palestinian Territories was 1.13 million in 1972 and 3.19 million in 2000.



The regional population growth rate was still above 3 percent in 2000, well above the global average of 1.3 percent. There are, however, significant variations within the region – the population of the United Arab Emirates has increased more than eightfold since 1970 whereas in other countries the rate has been much lower or even negative. The highest growth rates are currently in the Yemen – 4.1 percent a year at the end of the 20<sup>th</sup> century. The high population growth rates can be partly attributed to national policies. For example, health improvements have brought about a decline in death rates of 50 percent or more, increased life expectancy from 60.7 to 69.7 years, and more than halved the infant mortality rate from 75 to less than 30 per 1000 live births. Despite a decrease in fertility rates in both sub-regions from more than 7 to 6.3 and 4.6 children per woman in the Arabian Peninsula and Mashriq respectively, present fertility rates are still much higher than the world average of 2.8.

In most countries, the population is very young. In the Gulf Cooperation Council countries (GCC, all countries in the Arabian Peninsula except Yemen), 43 percent of the population is younger than 15 years and in the Mashriq sub-region the figure ranges from 30 percent in Lebanon to 48 percent in Iraq. Almost 50 percent of the Palestinian population is under the age of 15 years, increasing the dependency ratio (those under 15 and more

than 64 years, who depend on the working population) to more than 100 percent, very high by world standards.<sup>30</sup>

While the increase in population has been partly due to high population growth rates, a large influx of foreign workers due to increasing demand for labour by the expanding industrial and service sectors has also been a significant factor. Excessive population growth diffuses the fruits of development over increasing numbers instead of improving living standards. “Given the aridity nature of the region these fast growing population will place increasing demands on water and agricultural land and urban services”.<sup>31</sup>

#### **iv. LABOUR MIGRATION:**

Manpower is one of the important resources of modern industry. Many countries in the region have small population base in relation to the required work force. The deficiency in volume and skill of the labour force had been counteracted by both short and long term policies of the government. The immediate solutions to the labour shortage were to import labours on a large scale. “All of these countries needed to import skilled manpower and several had a shortage of unskilled workers as well”.<sup>32</sup>

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<sup>30</sup> Global Environmental Outlook 2003 (London Earth Scan: Public Limited, 2003),p.55-6.

<sup>31</sup> .Moghadam, n. 27, p.245

<sup>32</sup> Homa Kotozian, “Oil and Economic Development in the Middle East” in George Sabagh, ed., *The Modern Economic and Social History of the Middle East in its World Context* (New York: Cambridge University Press, 1989), p. 57.

Labour migrations have two dimensions one is within a country migration takes place from rural to urban and other is international migration i.e. migration from other countries. Rural to urban migration is being fuelled by both push and pull factors. In respect to push factors, agriculture failure to generate sufficient employment opportunities in the region is worth special attention. The low productivity in agricultural led a massive migration from rural areas. Lack of water resources is also responsible for low productivity. A notable trend in the 19<sup>th</sup> and 20<sup>th</sup> centuries has been the constant growth of urban communities at the expense of rural districts. "An increasing number of population, which had no land of their own in the villages, began to migrate to industrial and commercial areas to work as urban labour"<sup>33</sup>. Another reason for rural-urban migration was the mechanisation of agriculture, which reduced the farm labours. Development strategy is also another reason because which "reflects the neglect of agriculture and urban bias of growth"<sup>34</sup>.

Importing labours from other countries became necessary because the population base was small. Even at this level the real work force was very small. There are three reasons for that. First, these populations are very youthful, a larger proportion being less than 15 years age. Therefore, only a relatively small proportion falls within the age range from which the economically active are drawn. Second, wide spread expansion of secondary and university education during the 1970's has held within the educational

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<sup>33</sup> A.K. Srivastava , *Urbanisation : concepts and Growth* (New Delhi :H.K. Publication, 1979), p.27

<sup>34</sup> Pant, n. 29, p. 34.

system boys, and to a lesser extent girls, who would otherwise have entered the work force at, say, age 18. Third, the labour force reduced by women not generally working in wage employment in these States, except in a limited number of professions (teaching, nursing etc.) and in certain women's organisations. Traditional employment of women had been lost and has not been replaced by new opportunities in the modern sector.<sup>35</sup>

The huge gap between demand and supply of work force led to import labour both from within the region and outside. The total workforce in the GCC countries increased from 2 million in 1975 to 8 million by 1995. Foreign workers formed 70 percent of this total workforce and up to 90 percent in the United Arab Emirates and Qatar, 83 percent in Kuwait, 60 percent in Bahrain and Oman, and 59 percent in Saudi Arabia.

International migration for employment had profound influences on the labour importing States. It had helped to modernize their economies rapidly. In fact their present level of achievement could not have been reached without the help of the migrants. The scale and nature of development at presently envisaged in these States will ensure that migrants remain a permanent and often growing presence.

On the other side, while migrants contribute significantly to development, their large numbers are a cause of concern to oil rich States. In

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<sup>35</sup> J.S. Briks and C.A. Sinclair "Economic and Social Implications of Current Development in the Arab Gulf: The Oriental Connection in Tim Niblock, ed., *Social and Economic Development in the Arab Gulf* (London: Croom Helm, 1980), P. 138-139.

some of the smallest States, for instance, migrants account for over 90percent of the work force, and their numbers are increasing.

Ismail Serageldin and others identified five areas of concern due to large-scale migration to the region. There are, “ the shifting demographic balance, the nature of the migrants, the impact of the migrants on the host countries, the impact of migration on the countries of origin and the impact on the migrants themselves”.<sup>36</sup>

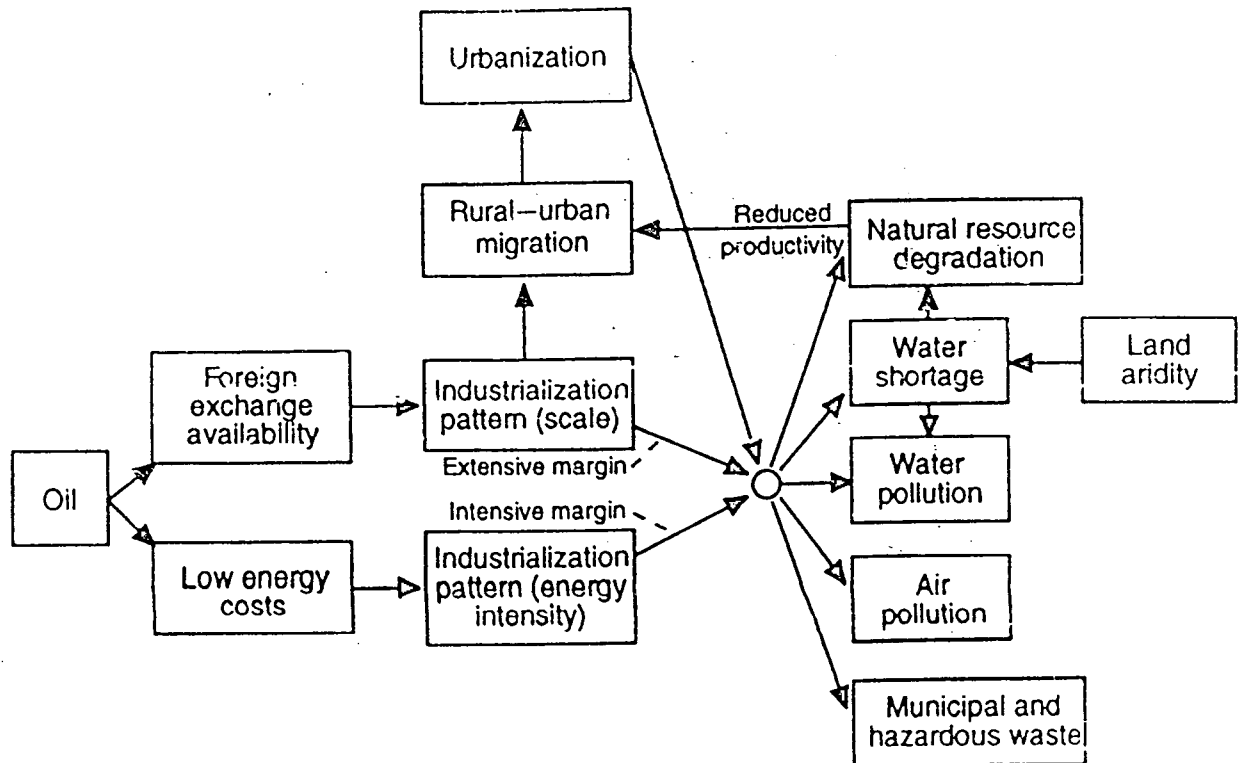
### **III. ENVIRONMENTAL CONSEQUENCES OF DEVELOPMENTAL ACTIVITIES**

Unprecedented levels of industrialization, inefficient use of limited resources, unplanned urbanization, large-scale consumption, higher population growth and lack of regulatory mechanism have produced a grave environmental situation in the region. The scarcity and degradation of water and land resources is the most pressing. Degradation of the marine and coastal environment, loss of biodiversity, industrial pollution and management of hazardous wastes also threaten socio-economic development in the region. For example, water is the scarce and most valuable resource of the region not only because of poor rainfall but high evaporation. But water is used in an inefficient manner.

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<sup>36</sup> Ismail Serageldin and others, “Some issues Related to Labour Migration in the Middle East and North Africa’ *The Middle East Journal*, Vol. 38, No. 4, 1984, pp. 618-24.

## Economic development and the environment



Source: Hamid Mohtadi, "Environmentally sustainable Development in middle East and North Africa" in Nemat Shafik, ed, n.6.

Agriculture sector is the main user of water in West Asia, accounting for nearly 82 per cent of the total water consumed compared to 10 per cent and 8 per cent for the domestic and industrial sectors respectively. The major causes of the increasing demand for water is rapid population growth. Domestic water demand has been rising due to an increase in per capita consumption.<sup>37</sup>

Over the past three decades, the adoption of food self-sufficiency has encouraged agricultural expansion. Governments have offered huge subsidies

<sup>37</sup> Global Environment Outlook 2003, p. 173.

and incentives, which resulted in a large –scale expansion of farming, increase subsequent water demand. Further more unregulated pumping, absence or minimal irrigation water tariffs, lack of enforcement measures against unlawful drilling and poor irrigation practices resulted in excessive use. Intensive agriculture and large-scale application of agro chemicals have also contributed to the contamination of water resources. Excessive use of ground water has resulted in sharp decline of the ground water levels and the quality due to seawater intrusion. In Gulf States good quality water is not available or is extremely limited, desalination of seawater has been commonly used to solve the problems of water supply for municipal and industrial uses.<sup>38</sup> Water quality degradation is often a consequence of both water scarcity and over-exploitation. Water quality and quantity are both major issues. Agro chemicals and industrial discharges have seriously affected aquatic life, causing public health hazards. Health impact due to poor water quality in an area of major concern. Water born diseases especially diarrhoea, are second only to respiratory disease as a cause of mortality and morbidity among children in the region.

“Massive and modern industrialization is incorporating advanced technologies into the protection system. These technologies rise environmental concern in view of the relative lack of processing recycling

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<sup>38</sup> Masahiro Murakami, *Managing Water for Peace in the Middle East: Alternative Strategies* (United Nations University Press, Tokyo, 1995) p. 114.

and reprocessing technologies”.<sup>39</sup> The burning of fuels is the main cause of atmospheric air pollution. The main sources of air pollution are oil refineries, oil gathering centres, oil platforms, petrochemical and fertilizer plants.

The increasing number of vehicles, poor traffic management and congested roads in major cities add to the levels of air pollution. Furthermore, leaded petrol is still in use in many countries, compounding health problems in cities. “Premature mortality and illness from excessive air pollution are imposing substantial health care costs throughout the region”.<sup>40</sup> In addition to the atmosphere pollution caused by human activities, seasonal and dust storms contribute to air pollution. The dust storms absorb pollutants such as pesticides and can transport them for long distances with adverse effect on the environment, the economy and the quality of life.

Rapid population growth and change in lifestyle have contributed to the large-scale degradation of wetland ecosystem. Habitat destruction and fragmentation have increased dramatically in most countries over the past three decades. A comprehensive decline in the larger terrestrial species has been recorded. Coastal and marine biodiversity is threatened by several human activities including pollution (oil spills, industrial and domestic discharge into seas).

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<sup>39</sup> Survey of Economic and Social Development in the ESCWA Region, 1998-1999. p. 135.  
<sup>40</sup> Larsen, n.23, p.295.



The region's forest and woodlands have suffered from a long history of degradation and over exploitation. Rural communities, especially in mountainous areas, depend heavily on forest resources for their livelihood, putting enormous pressure on the limited resource available. Population growth urbanization, economic development and internal disturbance are among the external factors that significantly affect forests. Fire, overgrazing and over cutting of wood products contribute locally to forest degradation.

The Coastal zones of West Asia are under various degrees of stress as a result of major demographic shifts from rural to coastal urban areas, intense urbanization of coastal zones and dumping of untreated waste. Further more regional wars and internal conflicts have introduced new dimension to the regions environmental problems and have stressed both financial and natural resources. Coastal related environmental issues would be discussed in the next chapter in detail.

#### **IV. GOVERNMENTS RESPONSES TO ENVIRONMENTAL PROBLEMS**

In order to prevent further deterioration of environment West Asian Counties have taken number of initiatives at various levels. Besides national levels these countries have ratified or acceded to some 64 international and regional environmental convention and agreements.<sup>41</sup> While some countries

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<sup>41</sup> Global Environmental Outlook 2000 (London: Earth scan Public Limited, 2000), p.313

are in the process of formulating laws to specific conventions, most rely on existing legal instrument for dealing with all major environmental issues.

**i. Regional Level Initiatives**

Countries have made substantial joint and co-operative efforts at the regional level to protect natural resources and the environment. The magnitude and the intensity of the problems requires co-operation in various fields in the region. Many regional institutions contribute to this task.<sup>42</sup>

- Arab Centre for Studies of Arid Zones and Dry lands (ACSAD).
- Arab Industrial Development and Mining Organisation (AIDMC)
- Arab League Educational, Cultural and Scientific Organisation (ALECSO).
- Arab Organization for Agricultural Development (AOAD).
- Centre for Environmental and Development for Arab Region and Europe (CEDARE).
- Council of Arab Ministers Responsible for Environment (CAMRE).
- Gulf Cooperation Council Secretariat (GCC).
- International Centre for Agriculture Research in the Dry Areas (ICARDA).
- Islamic Educational Scientific and Cultural Organisation (ISESCO).

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<sup>42</sup> Ibid. p. 316

- Joint Committee on Environment and Development in the Arab Region (JCEDAR).
- Mediterranean European Technical Assistance Programme (METAP).
- Regional Organisation for Conservation of Environment of the Red Sea and Gulf of Aden (PERSGA).
- Regional Organisation for the Protection of the Marine Environment (ROPME).

Most of these regional organisations cover the whole of the Arab region, but three related specially to parts of West Asia. (ROPME, PERSGA and METAP). The trans- boundary nature of environmental problems means that they also cover countries outside the region. Some such as AOAD, ALECSO, AIDMO and ISESCO do not deal specifically with environmental issues but address them in so far as their relation to the areas of concern (Agriculture, Industry, Education and science). Even ACSAD covers concerns other than purely environmental ones this studies of arid zones and dry lands.

In addition, many UN organizations and their regional offices operate in the region. They help to raise funds for technical assistance and support environment management programme environmental polices and institutional capacity building.

## **ii. NATIONAL INITIATIVES**

The policy aim of most governments is to limit further environmental degradation and achieve sustainable use of environmental resources. West Asian countries have made substantial efforts to integrate environmental aspects into their development schemes and strategies. West Asian countries have begun to formulate and implement environment policies over the past two decades. The initial approach was sectoral, consisting of developing methods of managing individual environmental resources without giving due consideration to the environment as a whole. However, governments are now reformulating laws and regulations, and following integrated approaches to deal with the complexity of environmental issues. Most have formulated National Environmental Action Plan (NEAP)s, which include identification and prioritisation of key issues, and have set targets and timetable for implementation.

However, in most cases, NEAPs are mainly checklists of desirable actions, based on rather limited and doubtful information. They are generally short on reliable cost estimates, time schedules, division of responsibilities for implementation, and identification of sources of funding for environmental related programme.

## A) Legislation

The command –and control approach, through effective legislation is still the main environmental management instrument in almost all the countries in the region. Other approaches are being investigated and introduced including technical assistance, advisory services, training, tax exemptions and etc.

The legislation dealing with a wide range of environmental issues, including desertification scarcity of freshwater, air pollution, management of hazardous and toxic wastes, and conservation of bio-diversity, has been developed more recently; many national legislation, laws and decrees dealing with environmental protection have been adopted within the past two decades. For example in Bahrain ten legal instruments address issues related to the protection of environmental resources. In Saudi Arabia also several laws dealing with various aspects of the environment are being effectively enforced.<sup>43</sup>

However, implementation of legislation and enforcement of standards varies. In many countries, as seen other developing regions, enforcement of legislative measures is far from satisfactory. This can be attributed to weak institution capacity for environmental management, shortage of human and technical capabilities, adoption of imported standards which are not always relevant or applicable to sectoral nature of environmental laws, unimpressive records of government machinery in monitoring and enforcing regulations

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<sup>43</sup> Ibid, P. 318

and standards, political and economic constrain and lack of public and NGO participation.

## **B) Institutional Mechanism**

During the past two decades, there has been significant interest and improvement in environmental institutions to implement environmental policies, enforce, laws and set standards and norms. Some countries have environmental ministries (Lebanon, Jordan, Oman and Syria), others have general directorates or environmental councils. (Bahrain, Iraq, Kuwait, Qatar, Saudi Arabia, UAE and Yemen). A Palestinian Environmental Authority was established in December 1996.<sup>44</sup> Committees and commissions have also created to deal with specific environmental concerns such as ozone-depleting substances, pollution, wildlife conservation and biodiversity.

The main obstacles to formulating and implementing environment policies are the potential for political and administrative conflicts, limitations in financial and skilled human resources, inadequate planning of industrial and urban development, interests in the use of water and land.

## **V. UNEP'S ROLE IN WEST ASIA.**

UNEP has six regional offices. These regional offices initiate and promote UNEP objectives and ensure that all the programmes formulated by UNEP meet the specific needs of the countries in a particular region. They act as a

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<sup>44</sup> Ibid. p. 317.

focal point for building national, sub-regional and regional partnership and enhancing local level involvement and participation in UNEP initiative.

In West Asia, Regional Office for West Asia ( ROWA) covers Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, The Palestinian Autonomous Territories, Qatar, Saudi Arabia, The Syria Republic, The United Arab Emirates and Yemen.

The region faces serious environmental degradation. Among the various problems the 'major issues identified by UNEP are: management of water resources; land-based source of marine pollution: desertification; toxic chemicals: and waste management'.<sup>45</sup> To effectively address these problems UNEP initiates a number of programmes and projects in consultation with the governments. At present the following major initiatives, projects and multilateral agreements are in operation in this region.<sup>46</sup>

## ***i* INITIATIVES & PROJECTS IN WEST ASIA**

### **A) Rio+10**

As a follow-up to the 1992 Earth Summit in Rio, a 10-year review is started in 2002. This will assess the implementation of Agenda 21 (Rio Summit Declaration) and identify where obstacles lie. It seeks to further

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<sup>45</sup> UNEP Biennial Report 1996-1997 (UNEP: Nairobi: 1997) p. 33.

<sup>46</sup> [www.unep.org/bh/legistla.htm](http://www.unep.org/bh/legistla.htm), Accessed on 2 May 2003.

promote sustainable development and find the way forward to developing an enabling environment for its implementation.

#### **B) Global Environment Outlook (GEO)**

The GEO process was developed by UNEP as an integrated, holistic approach to diagnose environmental problems and develop scenarios on how to implement Agenda 21. It seeks to provide a mechanism for diagnosing the environmental situation. It addresses priorities and concerns of the 6 regions of the world, though its work with regional Collaborating Centres. Three reports have already been published as part of the process.

A by-product of the GEO process is the Arab State of the Environment Report, carried out in cooperation with CAMRE. The study provides an expanded Regional State of the Environment for Arab Countries, using the West Asia section of GEO 2000 as a starting point for expansion, with data and information made available by governments and organizations. There are 2 components of the report; the first, the present state of environment section, while the second, provides a future vision.

#### **C) Global Programme of Action for the Protection of the Marine Environment (GPA)**

The GPA, which is based on the Washington Declaration (1995) addresses the protection of the marine environment from land-based sources of pollution. It is a global initiative, with headquarters in The Hague, The



Netherlands, and is to be implemented on a regional level to take account of regional disparities.

The first stage of the GPA is concentrating on municipal wastewater as a form of land-based pollution. Within the West Asia Region, a Steering Committee has been identified to oversee the regional activities.

#### **D) Global International Water Assessment (GIWA)**

GIWA is an international programme, which will assess the state of global waters and develop strategies to overcome identified problems. The world's oceans have been split into 15 mega-regions, with 66 sub-regions. West Asia is part of the Indian Ocean Mega-region.

The objective of GIWA is to develop a comprehensive strategic assessment to identify priorities for remedial and mitigatory actions in international waters.

A Mega-regional Task Team of 15 experts has been identified to develop a regional programme of work. This group involves a mix of hydrologists, hydro-geologists, socio-economists, natural resource and oceanographic experts. A Steering Committee has been formed, one of the main functions of which will be to ensure that the two programmes (GPA and GIWA) do not duplicate effort and that synergies are identified and built upon. This regional assessment and identification of priorities will provide a basis on which objectives and targets can be based.

## **E) Coral Reef Assessment and Biodiversity Protocol**

The International Coral Reefs Initiative (ICRI) was born of a political response to the scientifically well established fact that coral reefs are in serious decline globally, especially those near shallow shelves and dense populations, and that the major threats to coral reefs will lead, if not checked and controlled to the degradation of most of the world's reef resources during this century. This is a problem clearly identified in Chapter 17 of Agenda 21 and in other international conventions and agreements e.g. Convention for Biological Diversity, Conference on Small Island Developing States.

Within the West Asia region, a regional strategy for the protection of coastal reefs has been proposed and protocols on the protection of biodiversity and the establishment of Protected Areas in the ROPME and PERSGA Sea Areas are being developed. This effort is being partially supported by the European Union through the GCC Secretariat.

### **ii. MULTI-LATERAL AGREEMENTS**

#### **A) Regional Seas Programmes**

Regional seas programmes would be discussed in the third chapter of **Regional Seas programme in West Asia.**

**B) Marpol 73/78**

**C) UNCCD (United Nations Conference on Combating Desertification)**

ROWA views addressing the problems of desertification and implementation of the provisions of the UNCCD, especially through the development and implementation of an Arab Region Desertification Strategy, as a major priority in its activities.

A highly experienced specialist from Saudi Arabia has recently been appointed to coordinate the regional programmes for natural resource management, desertification and biodiversity.

ROWA is also the host of the Regional Coordinator for the sub regional programme (SRAP), which is being coordinated by the Global Mechanism (GM) of the UNCCD. The needs of the African Arab countries are being addressed through the Regional Office Of Africa. ROWA has allocated an additional budget to enable the natural resource management officer to assist 3 member states to finalize their national action plans.

**D) UNFCCC (United Nations Framework Convention on Climate Change).**

UNFCCC and the Kyoto Protocol provide for cooperation between UNEP and governments of the region in areas such as Clean Developing Mechanisms. This means lower emissions per unit of fossil fuel used, thus

reducing the overall impact on the environment. Such measures, along with the enhancement of sinks, would obviously affect fossil fuel production and consumption targets.

#### **E) Basel Convention**

ROWA is to further explore regional cooperation in the establishment of clean production centres in cooperation with UNIDO and regional arrangements for addressing hazardous wastes in cooperation with the Basel Convention Secretariat.

Another area of cooperation is the environmental management of chemicals, hazardous wastes and adoption of the Cleaner Production alternatives. ROWA has already begun implementing workshops in the region at the national and sub regional levels with DTIE on the Management of Hazardous Wastes.

#### **F) Montreal Protocol**

All Member States of ROWA, with the exception of Iraq, are Parties to the Montreal Protocol. All countries in the region are users of ODS but not producers. 80% of parties have already achieved the freeze target of 1999 and have begun to prepare for the 2002 obligation to freeze the use of methyl bromide and halons. All countries participate actively in Meetings of the Regional

Network, which are held every 6 months when they meet with representatives of the implementing agencies; the Ozone Secretariat and the Multilateral Fund Secretariat to prepare and implement their strategies to phase out ODS, even ahead of the Montreal Protocol Schedule.

Besides these initiatives, projects and programmes, UNSP assists the governments in formulating national laws, programmes and action plans to address environmental related problems.

In sum industrial growth is vital for economic development, it has also been a major cause of environmental problems. Thanks to massive oil revenues, the unprecedented levels of developmental activities have severely affected the environment in the region.

The industrialization, urbanization, population growth and migration of labour are the major sources of environmental problems. The aridity nature of the region has made the problems even more complicated one. Now the region is facing severe environmental problems.

Substantial efforts have been made by the governments in the region to improve the quality of environment in their respective countries. Most of the countries' participation in international treaties environmental issues provides evidence of governments commitments to sound environmental management. Many countries have framed national laws, in accordance with the international conventions. Some of the countries have set up Ministry of Environment. UNEP plays an effective role in the region to bring all the

members together despite differences at political level among these countries. This is to in most cases. For example a number of regional conventions are signed including marine related one at the regional level.

Despite the substantial efforts made by the governments and UNEP much remains to be done. Firstly both the governments and the non-government organisations should strengthen their institutional structures. Secondly there is an urgent need for an Information Bureau at regional level for providing adequate environmental, economic and social information. Thirdly the public participation has to be encouraged in the decision making process connected with environmental aspects. Lastly there is a need for political will to effectively address the environmental problems in the region.

**CHAPTER III**

**REGIONAL SEAS PROGRAMME**

**IN WEST ASIA**

Oceans cover nearly 71 percent of the earth's surface.<sup>1</sup> They contain 97 percent of the water on earth.<sup>2</sup>

“ About one- half of today's population lives on the sea- shores or in their immediate proximity; a variety of industries have developed on a large scale along the coast; the coastal zones are a major recreational area and the basis for expanding tourism; harbours are essential as centres for national and international transport and trade”.<sup>3</sup> Due to their numerous advantages, the coastal and near shore areas have been among the most intensively used and exploited parts of the planet. Today the living resources of the sea are under threat from land-based development activities, vessel-based pollution, dumping at sea and exploration and exploitation of the seabed.

In order to protect the marine environment from further deterioration, numbers of steps have been taken at different levels. Regional Seas Programme [RSP] is a significant effort in this direction made by United Nations Environment Programme [UNEP] to protect the seas all over the world. This chapter discusses the RSP of UNEP. It also analyses the two RSPs [the Kuwait Region and the Red Sea and Gulf of Aden] of West Asian region. In addition to these, it also reviews the administrative and legislative

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<sup>1</sup> Mostafa K. Tolba, *Saving Our Planet: Challenges and Hopes* (London: Chapman & Hall, 1992) p.34

<sup>2</sup> Adam Rogers, *Taking Action: An Environmental Guide for You and Your Community*, (Nairobi: UNEP, 1996), p.137

<sup>3</sup> Stjepan Keckes, “The Regional Seas Programmes - Integrating Environmental Development: The Next Phase” In Peter Bautista Payoyo ed., *Ocean Governance* (Tokyo: United Nations University Press, 1994) p. 139



steps taken by the governments in the region in accordance with the Conventions, Protocols and Action Plans of these two RSPs.

## **I. MARINE POLLUTION:**

The marine environment is made of the shores and the rolling waves, of the archipelagos and broad expanses of water, both deep and shallow, of lush bays. The environment embraces the flora and fauna of the coastal or deep-sea areas, sandy beaches and boulders, the inner archipelagos and the most distant rocky skerries, the tides and the currents.

The growth of the world economy, the burgeoning demand for food and fuel, and the accumulating discharges of wastage have begun to press against the bountiful limits of the oceans. The gradual physical and ecological degradation of the coastal and near shore areas, the depletion of the resources, have accelerated during the last few decades at an alarming pace.

According to the United Nations Conference on the Law of the Sea, “pollution of the environment means the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) which results in or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and legitimate use of sea, impairment of quality for use of sea water and reduction of amenities”.<sup>4</sup>

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<sup>4</sup> G.R.J. Timagenis, *International Control of Marine Pollution* (New York: Ocean Publication: 1980) p.24

**Table 3.1**

**Sources of Marine Pollution**

S.No.	Sources	Share of total (Percent)
1.	Runoff and discharges from land	44
2.	Airborne emissions from land	33
3.	Shipping and accidental spills	12
4.	Ocean dumping	10
5.	Offshore mining, oil and gas drilling	1
	All Sources	100

Source: Peter Weber, "Safeguarding Oceans" in State of the World 1994, A World Watch Institute Report on Progress Toward a Sustainable Society, (London: w.w.N orton&Company, 1994) p:46

Land based activities account for nearly 77 percent of all marine pollution and is globally the major source of marine pollution.<sup>5</sup> Pollution from land-based sources such as ports, industries, urban and tourist centres have put enormous pressure on the marine environment. To take advantages of access to the sea for transportation and water, almost all development projects have been established on the coast where they release their effluents into the most productive areas of the marine environment.

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<sup>5</sup> Mark Berman, "Protection of the Marine Environment from Land Based Activities in Sun Lin ed. *UNEP's New Way Forward: Environmental Law and Sustainable Development*, (Nairobi: UNEP, 1995). P. 238.

Accidental oil spills very often have a substantial impact on the particular locality when they occur in bays, estuaries or land locked seas. Besides oil, tankers may also carry other environmentally harmful cargoes. The tank-cleaning operations result in the discharge of residues of various liquid substances other than oil. In case of accidents these cargoes constitute a major polluting factor.

Dumping is one of the major sources of marine pollution. Dumping of radioactive materials, chemical waste, etc., have contributed to the release of toxic pollutants into the marine environment. Their disposal may cause the gravest hazard among the dumping activities at sea. In metropolitan cities the disposal of sewage sledge causes health problems.

## **II. REGIONAL SEAS PROGRAMME:**

As a follow-up to the Stockholm Declaration (1972) and Action Plan, the Governing Council of UNEP had directed its Executive Director in its very first session (1973) to frame international and regional agreements for the control of all forms of pollution of the marine environment with special focus on a particular bodies of water.<sup>6</sup> This regional approach has become a cornerstone of UNEP's strategy on marine pollution control. In 1974, UNEP launched RSP. UNEP first decided to concentrate on four regions: the

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<sup>6</sup> Bharat H. Desai, "Revitalizing International Environmental Institutions: The UN Task Force Report and Beyond" *Indian Journal of International Law* (New Delhi) Vol. 40, n.3, 2000 pp. 462-463.

Mediterranean Sea, the Kuwait (Gulf) Region, and the Caribbean Sea and West African Sea. Over the next five years UNEP added four more regions: the East Asian Seas, the Red Sea and Gulf of Aden, the South-East Pacific and South Pacific. At present more than fifteen RSPs are in operation.

In 1985 the name of the programme was changed to Oceans and Coastal Areas (OCA) programme and its headquarters moved from Geneva to Nairobi. Now both names have interchangeably been used.

OCA is now authorised to include projects concerned with living resources of the sea (e.g. fisheries, marine mammals, and aquaculture).<sup>7</sup>

#### **I) Regional Approach:**

The environmental problems of the oceans and coastal areas are global in nature, but there are significant regional differences in their causes and magnitudes. So the type of preventive measures and policies are those made in response to the actual situation, which varies from place to place, and region to region.<sup>8</sup> Consequently, the regional co-operation seems to be one of the most pragmatic solutions to the specific problems of group of countries sharing the same natural environment, such as an enclosed or semi-enclosed sea. This kind of regional co-operation also illustrates the practical necessity

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<sup>7</sup> Lyndon Keith Caldwell, *International Environmental Policy: Emergence and Dimensions* (New Delhi: Affiliated East-West Press Private Limited, 1991) p. 166.

<sup>8</sup> Keckes, n. 3, p. 140.

of finding co-operative arrangements most appropriate to cope with particular environmental problems in a specific geographical area.

In its Action Plan of 109 recommendations the Stockholm Conference also stressed the need for regional co-ordination in controlling pollution of the seas. Recommendation 92 states that the governments should take effective measures for the control of all significant sources of marine pollution and co-ordinate their actions at regional level.<sup>9</sup> It formed the conceptual basis for the development of the RSP of the UNEP, as a globally coordinated set of regional plans, implemented at national levels.

**ii) Components of regional seas programme:**

UNEP has adopted RSP aimed at tackling the causes as well as the consequences of the environmental damages in the coastal areas. This programme consists of three important components.

1. An Action Plan, which sets out activities for scientific research and co-operation, including assessment, management and support measures.
2. A legally binding Convention which embodies general commitment and

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<sup>9</sup> Peter Hulm, "A Strategy for Seas" Accessed Online [www.unep.ch/seas/main/regional/html/](http://www.unep.ch/seas/main/regional/html/) on 10 October 2002

3. The technical and specific Protocols, which deal with individual issues such as dumping, co-operation in pollution emergencies, land based pollution sources, and conservation.

#### **A. Action Plan:**

The substantive aspect of any regional programme is outlined in its Action Plan, which is formally adopted by an inter-governmental meeting before the programme becomes operational.<sup>10</sup> This Action Plan is considered to be the backbone of RSP. It spells out the strategy of a regional programme<sup>11</sup> based on the region's environmental challenges as well as its socio-economic and political situations.

The ultimate goal of all the Action Plans is the protection and development of the marine environment and resources in geographic areas covered by it. This goal is sought to be achieved through an integrated and gradual approach. It would take into account the urgency of the problems as perceived by the concerned governments and their institutions. The initial focus of the Action Plans is on marine pollution control. Generally, the underdevelopment or improper developments of nations are at the roots of most environmental problems. The meaningful environmental protection is

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<sup>10</sup> David Edwards, "Review of the Status of Implementation and Development of Regional Arrangement on Cooperation in Combating Marine Pollution" in John E. Carroll, ed., *International Environmental Diplomacy*, (New York: Cambridge University Press, 1988) p. 242.

<sup>11</sup> Keckes, n.3, p. 140

indeed linked with social and economic development. Therefore, the focus of the Action Plan is gradually shifting from a sectoral approach of pollution control to that of integrated coastal zone planning and management. In spite of the formal similarity of Action Plans, they differ in their details in order to respond to the actual problems, priorities, needs and capabilities of the participating countries of a particular region. The structure of Action Plans follows the framework adopted by the United Nations Conference on Human Environment (Stockholm, 1972), which consists of three basic components. These are environmental assessment, environmental management and support measures.

#### **1. Environmental Assessment (EA):**

EA is one of the basic activities, which will underline and facilitate the implementation of the other components of the Action Plan.

The monitoring and assessment activities of the Action Plan provide relevant data for setting regional priorities and policies. Regional institutions and experts participate in the assessment programme to determine the causes as well as impact of environmental problems in the region. Assessment includes both scientific and socio-economic data. Sources of pollutants as well as the effects on human health and marine ecosystems are also investigated. Detailed studies are undertaken on the direct and indirect environmental effects of socio-economic development activities. The status

and effectiveness of national environmental legislation and national institutions are also assessed.

## **2.Environmental Management:**

Each RSP includes a wide range of environmental management activities. These include cleaner and more efficient utilisation of energy sources, protection of fresh water resources, prevention of soil erosion and desertification, development of tourism without ecological damage and the mitigation of the environmental degradation associated with human settlements.

It also deals with the management of coastal lagoons, estuaries and mangrove ecosystems and formulation of contingency plans for dealing with the pollution emergencies.

## **3.Supporting Measures:**

It talks about education and training and institutional and financial arrangements. When adopting an Action Plan, governments agree to set up an organisation to act as the permanent or interim secretariat of the Action Plan. The intergovernmental meeting reviews the progress of the Action Plan and approves the new activities.



13 Online <http://www.unep.org/esa/inspire/comp.html> accessed on Oct 10, 2005.  
 15 Online <http://www.unep.org/esa/inspire/region.html> accessed on Oct 10, 2005.

to cope with the varying regional demands.<sup>13</sup>

and all the regions, but UNEP's regional approach has proved flexible enough to cope with its own needs. A uniform model could hardly be expected to be different in details because every regional sea has its own environmental problems. Most of the regional Conventions are similar in structure but the potential will of the governments to tackle their common environmental regional Action Plan. It expresses in clear terms the legal commitment and

A regional sea Convention provides the legal framework for the

#### **B. Conventions:**

institutions participating in the programme or by financing specific projects.<sup>15</sup>

Plan. In addition, governments contribute by supporting their national by the organisation, responsible for the secretariat functions of the Action which governments make annual contributions. These funds are administered financing is usually channelled through special Regional Trust Fund (RTF) to region progressively assume full financial responsibility. Government programmes. However, as the programme develops the governments of the selected organisations, provides "Seed Money," in the early stages of regional

In terms of financial arrangements, UNEP, along with United Nations,

### **C. Protocols:**

Protocols outline the steps to be taken to address specific problems. They cover oil spills, response to emergencies, pollution from land based sources or conservation of particular habitats.

These Conventions and Protocols are generally adopted to regulate the conduct of States in their individual as well as collective efforts to protect both their national marine spaces and those of the region as a whole. All those Conventions have common procedural norms. These norms or procedural requirements are the co-operation among the members and the obligation to apply the best available techniques and best environmental practices. The members are also obliged to monitor and report on the efforts being made to protect and preserve the marine environment<sup>14</sup>.

In developing the regional seas Conventions and their Protocols care has been taken to avoid any conflict with the provisions of the United Nations Convention on the Law of the Sea, or any other international agreements on subjects covered by regional seas Conventions. All the components of the Action Plan and other parts of regional programme are interdependent and provide a framework for comprehensive action to protect the marine environment.

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<sup>14</sup> Ibid.

### **iii) Formulation of Action Plan:**

The first step is to identify a particular region whose environment is likely to benefit from a regional programme. UNEP acts only at the invitation of governments in putting together a regional programme. Often a group of countries will approach UNEP on their own. Then, working directly or through existing regional organisations, UNEP initiates the process by consulting governments and international organisations through a series of meetings and missions. It involves governments in the region from the beginning in formulating an Action Plan.

Once the scope and substance of a suitable Action Plan is determined, teams of experts work with global, regional and national organisations to produce reviews of the region's environment and its problems. Governments then use these reports to identify the most urgent issues. Based on these reports UNEP helps to draft the text of the Action Plan. It also organises an intergovernmental meeting to consider its adoption. Once the Plan is adopted national institutions including marine laboratories are nominated by the governments to implement the programme. The regional Conventions and Protocols are often adopted at the same time as the Action Plans or within a year or two. Sometimes it takes more time.

### III STATE OF MARINE ENVIRONMENT IN WEST ASIA

The coastlines of West Asian Countries are short in Jordan (26 km) and Iraq (58 km) but are as long as 2510 km in Saudi Arabia and 2092 km in Oman. Marine resources have supported coastal populations for thousands of years. These long coastal lines have facilitated the development of maritime and trading links with rest of the world.<sup>15</sup>

Until the turn of the century, the impact of human development on coastal areas was limited. But this trend has changed dramatically in the last few decades.

Now the coastal zones of the region are under various degrees of stress as a result of major demographic shifts from rural to coastal urban areas, intense urbanisation, disposal of untreated industrial effluents and over fishing. The Mashriq and the Gulf Cooperation Council (GCC) countries have different sets of pollution related pressures on marine environment. In GCC countries the oil-related industries and the desalination plants are dominant pollutants. In Mashriq sub-region, the challenges are primarily from the major rivers that discharge domestic and municipal wastes, agriculture chemicals and hazardous industrial substances into sea. Development efforts in the bordering States of Kuwait, Bahrain, Qatar and United Arab Emirates (UAE) are wholly confined to the coastal areas, while the development efforts in Iran, Iraq, Saudi Arabia and Oman – countries that

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<sup>15</sup> UNEP, Global Environmental Outlook 2000 (London: Earthscan Publication, 2000), p. 167.

have extensive land areas are nevertheless heavily involved along the coastal areas. The oil pollution in the region is one of the highest in the world. It is mainly due to the concentration of offshore installations, tanker terminals, petrochemical industries and huge volume of oil transport by ships. The offshore installations located in the inner sea area also pose a major threat to a critically balanced eco-system. Due to lack of good quality water, seawater desalination is commonly used to supply water for the municipal and the industrial uses. Nearly 60 percent of the world's desalinating plants are located in the region. The discharges of brine, chlorine and heat from desalination plants continue to pose serious threat to the marine environment.<sup>16</sup>

Physical alteration of marine environment, coastal mining and quarrying are also considered the major environmental problems in several countries. For example in Saudi Arabia, coastal construction projects including recreational facilities, hotels and restaurants have been developed on a large scale in the last few decades that have caused significant destruction of marine habits.

The discharges from industrial plants also pose a great danger to marine environment and the human health. For example in GCC Countries, large-scale industrial, trade and development activities including petroleum refineries, shipyards, cement industries, desalination plants, steel mills and

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<sup>16</sup> Masahiro Murakani, *Managing Water for Peace in the Middle East: Alternative Strategies*, (Tokyo: United Nations University Press, 1995), p. 115.

petrochemical complexes are scattered in urban settlements along the coastal areas.

In addition to the development activities, wars have also caused extensive environmental damages in the region. The Iran-Iraq war, which lasted for eight years, targeted refineries, oil terminals, offshore oil fields and tankers. The two Gulf wars in the region have worsened the situation by depositing oil and oil-burn products into the marine environment. The recent attack of United States of America on Iraq has also caused extensive damages.

#### **IV. REGIONAL SEAS PROGRAMME IN WEST ASIA**

Keeping in view the distinct nature and magnitude of the environmental problems in West Asian region, UNEP launched RSP in 1982 in the region. Now more than fifteen RSP are in operation in all over the world. Among these, the West Asian Countries are members in three different RSPs. Lebanon, Syria and Israel are the members in the Mediterranean Seas Programme. Iran, Iraq and the GCC Countries are the members in the Kuwait Region Seas Programme. Saudi Arabia, Yemen, Jordan, and Palestine are members in Red Sea and Gulf of Aden Regional Seas Programme.

This study focuses on only two RSPs. These are the Kuwait Region and the Red Sea and Gulf of Aden. It analyses the administrative and

legislative steps taken by the member countries in accordance with the Conventions and Protocols of the RSPs.

**(i) KUWAIT REGION:**

The Kuwait Region is a narrow and shallow water body. It is virtually land-locked, having only a single outlet to the Indian Ocean through the Strait of Hormuz. It receives minimal rainfall and hardly any fresh water except through the Shatt-el-Arab water way. The extremely hot and dry climate of the area produces a high rate of evaporation and thus increases the degree of its salinity. This warm and salty water reduces the capacity of the region to break down and absorb industrial waste products and urban sewage. The seawater comes only through the Strait of Hormuz but much of it is lost through evaporation. This means that pollution is not flushed away easily. "These meteorological conditions and the enclosed nature of the Persian Gulf contribute to its characterisation as one of the world's most fragile and endangered areas".<sup>17</sup>

Kuwait Region is endowed with valuable natural resources and has a great bio-diversity of plants and animal species. It is also the sole source of drinking water in most of the Gulf countries.

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<sup>17</sup> Caldwell n.7 p.157

It serves as the transit way for over half of the oil on the international market. The Kuwait region has witnessed some of the most rapid and intense development activities in the world because of massive oil revenues. The most apparent threat to the marine environment however arises from the dense shipping traffic.

The rise in industrialisation together with high population growth and unprecedented level of urbanisation have resulted in ever-greater impacts from land-based sources of pollution on the region's coastal waters.

Owing to intense and constantly growing environmental threat to the Kuwait Region, in 1975 UNEP has designated it as one of seven endangered marine regions. UNEP incorporated the Kuwait Region in its RSP among the first four regions identified for the introduction of the Programme.

“The Kuwait Regional Conference of Plenipotentiaries on the Protection and Development of the Marine Environment and the Coastal Areas was convened by UNEP in 1978”.<sup>18</sup> Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) attended the Conference. The Conference adopted the Action Plan, (Kuwait Action Plan), the Kuwait Regional Convention, and Protocol. The Kuwait Convention and Protocol were enforced in Bahrain, Iraq, Kuwait, Oman and Qatar in 1979, in Iran and UAE in 1980 and in Saudi Arabia in 1982. (Table 3.2)

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<sup>18</sup> Edwards n. 10 p. 245



**Table 3.2****Persian/Arabian Gulf**

	Kuwait Convention <sup>a</sup>		Emergency Protocol <sup>b</sup>	
	Signed	In force	Signed	In force
Bahrain	24.04.78	01.07.79	24.04.78	01.07.79
Iran	24.04.78	01.06.80	24.04.78	01.06.80
Iraq	24.04.78	01.07.79	24.04.78	01.07.79
Kuwait	24.04.78	01.07.79	24.04.78	01.07.79
Oman	24.04.78	01.07.79	24.04.78	01.07.79
Qatar	24.04.78	01.07.79	24.04.78	01.07.79
Saudi Arabia	24.04.78	26.03/82	24.04.78	26.03/82
United Arab Emirates	24.04.78	01.03.80	24.04.78	01.03.80

a. Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, adopted on 23 April 1978.

b. Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Case of Emergency, adopted on 23 April 1978.

Source: Peter H. Sand, *Marine Environment Law in the United Nations Environment Programme: An Emergent Eco-Regime*, London: Tycooly publication, 1988) p. 256

The Kuwait Action Plan (KAP), an attempt at the harmonization of development objectives with environmental protection for the benefit of present and future generations provides for a framework an environmentally sound and comprehensive approach to coastal area development, particularly appropriate for this rapidly developing region.

**(ii) RED SEA & GULF OF ADEN:**

The Red Sea is a narrow strip of water extending for 1930 km South East from the Suez Canal to the Strait of Bab el –Mandeb. It has become one of the world's major commercial waterways.

The Red Sea lies in an extremely hot and arid part of the world. Due to the heat, evaporation is greater than precipitation, thus making the seawater very saline. The chief source of water replenishment is the Gulf of Aden.

The shallow coastal waters and the treacherous winds and currents have made navigation hazardous. With the discovery and development of oil in the region, the Red Sea became an essential link in the transport of oil to West.

Like Kuwait Region, the Red Sea and Gulf of Aden Region is also facing the effects of oil wealth. Today oil fuels the development of the region, but the onshore and offshore mineral mining would provide even more earnings in the future. Though Red Sea region is relatively free of pollution and unaffected by population pressures, cities and industries are growing fast, along with oil exploitation and shipping.

Life in the Red Sea faces threats from oil lost by ships, from dredging and construction, and from the wastes produced by the big industrial plants being built in the coastal zone and nearer places. In order to protect the Red Sea and Gulf of Aden from further environmental degradation UNEP had decided to introduce RSP. A Plenipotentiary Conference convened by the Arab League Educational, Cultural and Scientific Organisation (ALECSO). It was held in Jeddah (Saudi Arabia) in February 1982.<sup>19</sup> The Conference was attended by the Democratic Republic of Yemen, Jordan, Palestine (represented by Palestine Liberation Organisation (PLO)), Saudi Arabia, Sudan, the Somali Democratic Republic and the Yemen Arab Republic. The Conference adopted a Regional Convention on the Protection of marine environment of the Red Sea and Gulf of Aden. The Conference also approved a Protocol concerning regional cooperation to combat marine pollution arising from emergencies (Table 3.3). An Action Plan was also adopted.

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<sup>19</sup> Edwards, n.10, p. 253.

**Table No 3.3**

**Red Sea and Gulf of Aden**

	Jeddah Convention <sup>a</sup>		Emergency Protocol <sup>s</sup>	
	Signed	In force	Signed	In force
Democratic Yemen	14.02.82		14.02.82	
Jordan	14.02.82		14.02.82	
Saudi Arabia	14.02.82	20.08.85	14.02.82	20.08.85
Somalia	14.02.82		14.02.82	
Sudan	14.02.82	20.08.85	14.02.82	20.08.85
Yemen Arab Republic	14.02.82	20.08.85	14.02.82	20.08.85
Palestine Liberation Organisation	14.02.82	20.08.85	14.02.82	20.08.85

a. Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment, adopted at Jeddah on 14 February 1992.

b. Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Case of Emergency, adopted at Jeddah on 14 February 1982.

Source: Peter H. Sand, *Marine Environment Law in the United Nations Environment Programme: An Emergent Eco-Regime*, (London: Tycooly publication, 1988) p. 257

**(iii) ADMINISTRATIVE AND LEGISLATIVE RESPONSES:**

The Conventions and Protocols make the provisions to set up organisations and institutions to implement the Action Plans, Conventions and Protocols. The Convention obliges the member countries to set up institutions at regional as well as at the national levels. They are also obliged to enact legislation at national levels. These organisations are expected to implement the RSP.

**A. Regional level organisations:**

In order to implement the RSP, an organisation or a secretariat is set up. In case of some RSPs, UNEP provides its secretariat for the implementation of the RSP. Otherwise a separate organisation is set up for a particular RSP. In West Asia two organisations were set up for the two RSPs.

**1. Kuwait Region:**

Article XVI of Kuwait Convention (KC) provides for the establishment Regional Organisation for the Protection of the Marine Environment (ROPME) to implement and co-ordinate RSP. In 1981 ROPME was set up in Kuwait. It consists of three organs namely a Council, a Secretariat and a Judicial Commission

The Council comprises of all the members of the Convention. The Chairmanship of the Council rotates among the members in alphabetical order

of the names of the States (English language). The functions of the Council are given in Article XVII (d) of KC.

The important functions are:

- (i) To keep under review the implementation of the Convention and its Protocol and Action Plans.
- (ii) To review and evaluate the state of marine pollution and its effects on the sea area.
- (iii) To appoint the Executive Secretary
- (iv) To review periodically the functions of the Secretariat

According to Article XVII, the Secretariat comprises of an Executive Secretary and the personnel necessary to perform the assigned functions. The Secretariat, which is the backbone of the organisation, performs the following functions.

- (i) To prepare reports on matters relating to the Convention and to the administration of the Organisation.
- (ii) To establish, maintain and disseminate an up-to-date collection of national laws of all states concerned relevant to the protection of the marine environment.
- (iii) To arrange training programmes in areas related to the implementation of the Conventions and Protocols.

The Council decides the composition, terms of reference and rules of the Judicial Commission. The important function of the Commission is the settlement of disputes among the members in relation to the Protocols, Conventions and Action Plans.<sup>20</sup> ROPME was established in 1981 in Kuwait<sup>21</sup> In addition to ROPME, there is another regional organisation. The Kuwait Protocol concerning regional cooperation in combating pollution by oil and other related harmful substances in cases of emergency provides for the establishment of the Marine Emergency Mutual Aid Centre (MEMAC) (Article III).<sup>22</sup>

MEMAC was formally set up in March 1983 in Bahrain<sup>23</sup>. An important objective of MEMAC is to strengthen the capacities of the member States to combat pollution by oil and other harmful substances in case of marine emergencies. MEMAC's activities are currently confined to the exchange of information, through the circulation of inventories of equipment and expertise, marine casualties, sensitive areas and national training programmes. MEMAC provides technical advice to all the members in developing national contingency plans.

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<sup>20</sup> Peter H. Sand, *Marine Environmental Law in the United Nations Environment Programme: An Emergent Eco-Regime* (London: Tycooly Publication, 1988) pp. 51-53.

<sup>21</sup> Edwards, n.10, p.245

<sup>22</sup> Sand, n.20, pp.60-61

<sup>23</sup> <http://www.unep.ch/seas/main/hkey.html> accessed on 15 November 2002.

## **2. Red Sea and Gulf of Aden**

Regional Convention for the Conservation of the Red Sea and Gulf of Aden environment provides for the establishment of Regional Organisation for the conservation of the Red Sea and Gulf of Aden Environment (Article XVI). This Organisation is called as the Red Sea and Gulf of Aden Environment Programme (PERSGA). The administrative structure and functions of this organisation is very closely aligned to that of Kuwait Regional Organisation.

PERSGA consists of a Council, a Secretariat and a Committee for the Settlement of Disputes. The Council consists of all the members of the Convention. The following are the important functions of Council.

- (i) To keep under review the implementation of the Convention, Protocols and Action Plan
- (i) To review and evaluate the state of marine environment and coastal areas on the basis of reports provided by the members or by any international organisation.
- (ii) To appoint the Secretary General
- (iii) To approve the report on the work and activities of the organisations.

Under Article XIX of the Convention, the Secretary General will head Secretariat. The important duties performed by the Secretariat are: -



- (i) To prepare and submit reports on matters relating to this Convention.
- (ii) To establish, maintain and disseminate an up-to-date collection of national laws concerning the conservation of marine environment of all the members.
- (iii) To organise and co-ordinate training programmes in areas related to the implementation of the Conventions and Protocols.
- (iv) To perform the functions the Council may assign to it.

The Committee for the Settlement of Disputes whose composition, terms of reference and rules of procedure shall be decided by the Council (Article XVI (2)(c))<sup>24</sup>

Besides this Organisation, the Protocol concerning regional co-operation in combating pollution by oil and other harmful substances in cases of emergency provides for the setting up of Marine Emergency Mutual Aid Centre (Article III of Protocol of Red Sea and Gulf of Aden).

According to Article III of the Protocol, the functions of the centre shall be:

- (i) To assist the members in the preparation of laws and regulations concerning matter covered by this Protocol.

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<sup>24</sup> Sand n.20. pp. 121-124

- (ii) To provide all the relevant information in preparation of marine emergency contingency plans.
- (iii) To co-ordinate training programmes for combating pollution and prepare comprehensive plans.

This centre has so far not been set up. Therefore the MEMAC (Kuwait region) extends its functions by providing technical supports to the members of the Red Sea and Gulf of Aden Environment Programme.

#### **B. National level Institutions and Legislation:**

By signing a Convention the member countries accept some general obligations, which have to be fulfilled in order to implement the same. Article III of the above-mentioned two Conventions have these general obligations. There are two important obligations. One is that the member countries shall, "individually and/or collectively take all appropriate measures... to prevent, abate and combat pollution of the marine environment in the Sea area" (Article III (a) the Kuwait Convention). The Convention of the Red Sea and Gulf Aden also provides same kind of obligation under Article III (1).

The second important obligation under Article III (c) of the Kuwait Convention is that the member countries shall "establish national standards, laws and regulations as required for the effective discharge of the obligation prescribed in paragraph (a) of the article" i.e. (Article III (a). The Red Sea and

Gulf of Aden Convention (RSGAC) also provides for same kind of provision in Article III (3).<sup>25</sup>

The Article III (C) of the Kuwait convention and Article III (3) of the Red Sea and the Gulf of Aden convention also provide for the appointment of National Authority by the governments to harmonise their national development policies and the general obligation prescribed in Article III (a) of the KC and Article III (1) of the RSGAC.

A close study of these two provisions Article (III) (a), (c), of the Kuwait Convention and Article III (1), (3) of the Red Sea and Gulf of Aden Convention reflects that the member countries should take all the appropriate measures including establishing national standards, laws, regulations and a National Authority to prevent, abate and combat pollution of the marine environment.

The creation of appropriate institutional mechanism and enactment legislation has become an important obligation of the members of these two Conventions. These measures are vital in controlling marine pollution. But no major steps have been taken in this direction.

“No new national institutions have been initiated to implement the Conventions dealing with the marine environment. Similarly, no new laws

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<sup>25</sup> Ibid.pp.129-131

have been issued in relation to these Conventions".<sup>26</sup> Countries of these two regional Conventions have not fulfilled this prime obligation.

The governments have not set up even the National Authority. However, the existing institutions are implementing the Provisions of both the Conventions and the Protocols.

## **V. CONCLUSION:**

UNEP's RSP is an important and innovative programme to control the marine pollution. UNEP's region based strategy has achieved considerable success. UNEP has succeeded in bringing together all the government in a particular region. But UNEP's efforts alone are not sufficient to achieve the real purpose of RSP. There is a need for complementary supports from the governments in the region. Governments need to bring pollution sources within the purview of environment specific laws. In order to frame and implement such laws appropriate institutional mechanism should be set up. For example UNEP's Mediterranean Regional Seas Programme has achieved considerable success due to the fulfilment of the obligations by the member countries.

But in West Asia, according to the Conventions only the regional level institutions have been set up. The RSGAC members have not even set up the equivalent of MEMAC.

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<sup>26</sup> Global Environmental Outlook 2000 n. 15, p. 315.

No major steps have been taken at the national level. The existing institutional structures and laws are not sufficient to implement the provisions of the Protocols and the Conventions.

Lack of skilled and semi-skilled manpower, poor institutional arrangements, virtually no public participation, and inadequate environmental, economic and social information are the major reasons for the governments' failure to effectively address the environmental issues. Political and economic problems are the more pressing issues for the government. Due to this the environmental issues do not get their required attention.

Given the nature of the environmental problems the governments must immediately address these problems for two reasons. First, the failure to address the problems at present would greatly magnify the cost and complexity of remedial efforts. Secondly, the environment degradation is already posing a major threat to the regional economic growth prospects and human well-being especially that of the poor.

Considering magnitude of the marine pollution in the region fulfilling the obligations of the Convention and the Protocols by the governments are paramount. Efforts made by the governments in the region to control marine pollution are not sufficient especially at the national level as warranted by the marine environmental situation.

**CHAPTER IV**

**CONCLUSION**

In an era globalisation, a better understanding and mutual co-operation between the governments and international agencies have assumed greater significance for addressing a wide range of socio-economic problems. Environmental problems need immediate attention due to its complex nature and its severe impact on public.

The first chapter made an attempt to analyse the sources and consequences of global environmental problems .it also reviewed the steps taken by the global community in the name of Global Environmental Governance (GEG) to address the environmental issues. It further traced the origin of UNEP and explained the administrative structure and the functions of UNEP. The second chapter analysed the sources and the consequences of environmental problems in West Asia and the efforts made by the governments and UNEP in the region. The third chapter gave the details of RSP of UNEP. It then reviewed the state of marine environment in West Asia. Besides, it evaluated the two RSPs in West Asia and the governments' administrative and legislative response to them.

In the changing social conditions, effective co-operation between the government and the civil society is not only desirable but also indispensable. Governance is an effective mechanism that institutionalises this co-operation for the betterment of society. Governance is used to describe the management of various affairs and issues of the society both at local level as well as global level.

In the last two centuries human impact on earth's natural resources has increased manifold. It is due to the rapid population growth, advancement of science and technology and unprecedented level of developmental activities. The damages caused by these three factors are not only enormous but also irreversible. This extensive environmental degradation has heightened the concern about the global environment. The problematic areas include the rapidly depleting ozone layer, the green house effect, the acid rain, deforestation and desertification. Now humanity has reached a critical juncture where the protection of environment has become necessary for the survival of human beings.

The environmental problems are complex and have global dimension. Due to this the governments individually find it difficult to effectively address these problems. This is due to the lack of appropriate institutional mechanism, resources and technology. So a comprehensive and sustained international cooperation between the governments and the other agencies can only enable them to permanently solve these problems. International measures are not only needed to tackle the global environment threats but also to aid the individual countries in confronting them. Developing countries, which face immense pressure on their natural resources, need assistance in planning for growth and in coping with the hazards of modern technology.

In order to address the various environmental problems, different kinds of mechanism were devised in the 1960s and 1970s. They are in the



form of institutions, agreements, protocols etc. In 1968 the United Nations (UN) decided to convene a Conference to discuss the environmental problems. This decision is considered to be the turning point in the efforts of the global community to protect the environment. The Conference had recommended the setting up of an institution at the global level to coordinate various activities regarding environmental protection. Thus the United Nations Environment Programme (UNEP) was set up in 1972. UNEP serves as a focal point for the environmental activities within UN system. UNEP coordinates and supervises the implementation of a number of agreements, Protocols, etc.

To preserve the environment both the State and non-State actors are working at different levels through various ways and means. This kind of collective co-operation is called Global Environmental Governance (GEG). GEG is not a rigid structure. But it is based on an intricate web of organisations, treaties and agreements. UNEP plays a prominent role in GEG. UNEP coordinates the entire network of environmental related organisation, agreements, treaties, etc. UNEP performs its functions through its six regional offices. These regional offices initiate and promote UNEP's objectives in their respective regions. They also ensure that all the programmes formulated by UNEP meet the specific needs of the region.

Due to the distinct nature of environmental problems in West Asia, UNEP pays more attention to this region through its Regional Office for West

Asia (ROWA). Unprecedented levels of industrialisation, inefficient use of natural resources, unplanned urbanisation, large scale consumption, higher population growth and inadequate regulatory mechanism have produced a grave environmental situation in West Asian region.

The West Asian region has undergone major demographic change and socio-economic transformations since oil was discovered at the beginning of the 20<sup>th</sup> century .the oil exporting countries obtained increasing revenues from rapid growth in oil production and rise in price. These massive oil revenues enabled the governments in the region to undertake large-scale developmental activities since early 1970s. This unprecedented level of activities severely affected the environment.

In response to the rapid population growth, large-scale forest areas are converted into agricultural land. For example the Iranian government recently announced that parts of the forestland on the Caspian Coast would be denationalised and given to the farmers for cultivation. Land degradation has also been a serious problem in the last few decades. Most land is either desertified or vulnerable to desertification. The limited arable land is also suffering from intense developmental activities and population pressure. Large areas of fertile land are being taken out of production for urban, transport and industrial needs. Due to soil erosion in Yemen the average rate of abandoned land increased from 0.6 percent during 1970-1978 to 7 percent during 1980-1984.

The rapid urbanisation also has considerable environmental implications for the region. It puts tremendous pressure on the infrastructure. It leads to the deterioration of environmental conditions in urban areas. Urbanisation and concomitant industrialisation in and around the cities have created massive air pollution. For example, in Cairo sulphur dioxide emission into the atmosphere from oil burning power plants are causing lung diseases in children. This rate is higher in urban areas than in rural ones. The direct discharge of untreated or partially treated industrial water, particularly from oil-based industries in the Gulf region has caused significant damage to marine environment. In Jordan most industrial wastes are discharged in the Seil El-Zarqa basin near Amman. This causes serious pollution in the reservoir of King Talal dam, which is used as the main source of irrigation for the Jordan valley. Similar water pollution problems are common in Iraq, Syria and Yemen. Marine bio-diversity has been adversely affected in the region by pollution, habitat destruction and over-fishing. The limited freshwater is also deteriorated due to over exploitation.

UNEP has taken number of steps, in order to protect the severely affected environment in West Asia. These include environment related programmes, projects, and initiatives. By the consistent efforts of UNEP, various regional level agreements were also signed among the governments in the region. UNEP also assists the governments to set up institutions and to enact legislations to preserve the environment. In addition to these, UNEP

also encourages the governments to participate in the regional and international treaties, conventions, protocols, agreements etc concerning the environmental issues

Regional Seas Programme (RSP) is one of the important and desirable UNEP initiatives in the region. Marine environment faces severe problems from oil related industries and development activities. UNEP has introduced two RSPs in the West Asian region namely the Kuwait Region and the Red Sea and Gulf of Aden seas programme. UNEP has achieved a major success in bringing all the governments together to sign these two RSPs in the region.

According to the Conventions and Protocols of these two RSPs, these governments have to fulfil a number of obligations both at the regional as well as at the national level. These obligations include setting up institutions, enacting legislations, determining standards, etc. At the regional level the governments have fulfilled all their obligations by setting up regional organisations to implement the Conventions, the Protocols and the Action Plans. The Kuwait Region members have set up all the organisations at the regional level. The Red Sea and Gulf of Aden RSP members have also set up all the institutions in accordance with Conventions and Protocols except one organisation (i.e. equivalent of MEMAC of Kuwait Region Convention). But at the national level no major step has been taken in accordance with the Conventions and the Protocols. No government of these two RSPs has either set up the institutions or enacted the legislation in accordance with the

Conventions. However, the existing institutions implement the provisions of the Conventions and the Protocols and the Action Plans.

At present the environment related institutions in West Asia are not sufficient to frame and implement environmental laws, rules and regulations. Some of the countries have a Council to deal with environmental issues. This Council is attached with other ministries. Very few governments have a full-fledged environment ministry. Even the government with separate environment ministry are not performing well. For example in Lebanon the Ministry of Environment was established in 1991, but until 1993 it had no staff. In terms of legislation also there is no substantial effort. No government has framed a comprehensive legislation. For example Bahrain has no legislation to specifically address the issue of protecting the environment.

Lack of skilled and semi-skilled manpower, poor institutional arrangements, virtually no public participation, inadequate environmental, economic and social information are the major reasons for the governments' failure to effectively address the environmental issues. Besides the political and economic problems are the more pressing issues for the governments. Due to this the environmental problems do not get their required attention. Meeting the environmental challenges in the region requires articulated national strategies that include setting up of priorities and taking appropriate action. Given the nature and intensity of the problem the governments must immediately address them for two reasons. First, the failure to address the

problem at present could greatly magnify the costs and complexity of remedial efforts. Secondly the environmental degradation is already posing a major threat to the regional economic growth prospects and human well being especially that of the poor. Initiating radical reforms in the environment related institutional arrangements require immediate attention. These reforms are crucial the complementary efforts by the governments to the UNEP's initiatives in the region. The reforms should create conducive atmosphere for public participation in the environmental policy formulation as well as implementation. Governments need to make more investments in the administrative and legal fields by setting up educational and training institutions. Creating environmental awareness is also required in solving the environmental problems. Considering the nature and gravity of the environmental problems and UNEP's role, the responses and complementary efforts of the governments in the region have not been sufficient.

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