

**Government of the Islamic Republic of Iran  
United Nations Development Programme  
Global Environment Facility**

**Conservation of Biodiversity in the Central Zagros Landscape Conservation Zone  
Project Brief**

Project Number: PIMS 2278  
Title: Conservation of Biodiversity in the Central Zagros  
Landscape Conservation Zone  
Duration: 5 years  
Implementing Agency: United Nations Development Programme (UNDP)  
Executing Agency: Department of Environment, Government of the Islamic  
Republic of Iran (DoE/GOIRI)  
Requesting Country: Islamic Republic of Iran  
GEF Focal Area: Biodiversity  
Programming Framework: OP 4: Mountain Ecosystems  
Strategic Priority: BD2: Mainstreaming biodiversity in production sectors and  
landscapes

**Summary**

The Central Zagros mountains contain globally significant ecosystem, species and genetic biodiversity. Extreme topographical relief and climatic conditions have led to great diversity in ecosystems and habitats over small geographical areas. In turn, this has created a home for a vast range of species including over 2,000 species of higher plants and several endangered and endemic mammal species. Notably, the mountains contain a large number of plant and animal species of commercial importance to man – no doubt one of the reasons why some of the earliest civilisations originated in this area. In recent decades, due to demographic changes, to changing economic and social systems, and the loss of traditional management and land-use practices, the biodiversity is declining and is now highly threatened.

This project aims to conserve the biodiversity in the Central Zagros Landscape Conservation Zone. Over an area of 2,500,000 hectares, the project will work with the agriculture, forestry, rangelands, water and tourism sectors in order to mainstream biodiversity conservation and sustainable use into the sectors. It will also strengthen the ability of the protected area system to complement this mainstreaming. The project will also demonstrate biodiversity mainstreaming at the local level in a series of villages across the Zone, and establish mechanisms to facilitate the dissemination and replication of the successful village approaches. The project adopts a business-oriented approach to biodiversity conservation, and is designed to support ongoing efforts to improve livelihoods and stimulate economic development across the Zone.

Finally, the project will develop the necessary capacity, at individual, institutional and systemic level, in national agencies to support the innovative approaches to biodiversity conservation being developed in the Zone.

**Costs and Financing (US\$):**

**GEF financing:**

Full Project:	\$3,800,000
<u>Block-B Preparatory Funding</u>	<u>\$ 196,000</u>

Sub-total GEF: \$3,996,000

**Incremental Co-financing:**

Government of the Islamic Republic of Iran:	
Department of Environment (DoE)	\$ 4,030,000
Ministry of Agricultural Jihad (MoAJ)	\$ 745,000
Other Ministries	\$ 415,000
United Nations Development Programme	\$ 160,000
Private Sector	\$ 45,000
Local NGOs (to be secured after project start-up)	\$ 380,000
<u>Block-B Preparatory Co-financing</u>	<u>\$ 267,000</u>
<b>Sub-total Incremental co-financing:</b>	<b><u>\$ 6,042,000</u></b>

**Total Project Cost** (including Block B preparation cost) **\$10,038,000**

**Total Project Cost** (excluding Block B preparation cost) **\$9,575,000**

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**Baseline**

Government of the Islamic Republic of Iran:	
Department of Environment (DoE)	\$12,350,000
Ministry of Agricultural Jihad	\$55,530,000
Other Ministries	<u>\$15,080,000</u>

**Total Baseline** **\$82,960,000**

**GEF FOCAL POINT ENDORSEMENT:**

**Name:** Ambassador Pirooz Hosseini, Permanent Representative of I.R. of Iran to UN in Vienna, Austria, and GEF Operational Focal Point

**Date:** 29 June 2004

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## **List of Acronyms**

ABD	Area Based Development programmes (of UNDP)
ABS	Access and Benefit Sharing (of genetic resources)
ARF	Agriculture, Rangelands and Forests
BEC	Biodiversity Enterprise Centre
BEGP	Biodiversity Enterprise Grants Programme
CBD	(United Nations) Convention on Biological Diversity
CCDCZ	Coordinating Committee for the Development of the Central Zagros
CHTO	Cultural Heritage and Tourism Organization
CHM	Clearing House Mechanism
CZLCZ	Central Zagros Landscape Conservation Zone
DoE	Department of Environment
DNPWA	Department of Nomadic and Pastoral Women's Affairs (of MoAJ)
EHC	Environmental High Council
FRWO	Forests, Rangelands and Watershed Organisation (of MoAJ)
GDP	Gross Domestic Product
GEF	Global Environment Facility
GOIRI	Government of the Islamic Republic of Iran
LAWG	Land and Agricultural Working Group (of the PPC)
MAB	Man and Biosphere Programme (of UNESCO)
MBRC	Mountain Biodiversity Resource Centre
MoAJ	Ministry of Agricultural Jihad
MoE	Ministry of Energy
MoFA	Ministry of Foreign Affairs
MoU	Memorandum of Understanding
MPO	Management and Planning Organisation
NAB	Nomadic Affairs Bureau (of MoAJ)
NBSAP	National Biodiversity Strategy and Action Plan
NCSD	National Commission for Sustainable Development
NDP	National Development Plan ( <i>The 4<sup>th</sup> Social, Economic and Cultural Development Plan of the I.R. of Iran</i> )
NGO	Non-Governmental Organisation
NPD	National Project Director
NPM	National Project Manager
NPO	National Project Office
PAN	Protected Area Network
PCO	Provincial Coordination Offices
PPC	Provincial Planning Council
PS	Project Secretariat
PSC	Project Steering Committee
RIFR	Research Institute for Forest and Rangelands (of MoAJ)
SEA	Strategic Environmental Assessment
SNC	Second National Communication (to UNFCCC)
TAT	Technical Advisory Team
TAN	Technical Advisory Network
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WAD	Water Affairs Department (of MoE)
ZPO	Zagros Project Office

## **1. COUNTRY OWNERSHIP**

### **1A. Country Drivenness**

#### Environmental Protection and Biodiversity Conservation

1. The Constitution of the Islamic Republic of Iran states that all legal and real persons have a duty to protect the environment. The Constitution prohibits all activities, economic or otherwise, that may result in irreparable damage to the environment. Over the past 15 years, the Government of the Islamic Republic of Iran (GOIRI) has increasingly striven to operationalise these objectives, by paying increasing attention to environmental issues and to biodiversity conservation. The Fourth Five-Year National Development Plan (2005-2009), the NDP, devotes an entire Chapter to Environmental Protection. The first Article in this Chapter states the importance of biodiversity conservation and emphasises the government's commitment to implementing the National Biodiversity Strategy and Action Plan (NBSAP)<sup>1</sup>.
2. The NBSAP identifies the Zagros Mountains as one of the country's most important eco-systems for conservation and improved management. The NBSAP sets out four strategies that should underpin all measures to conserve biodiversity in Iran. As will be explained in the following sections, the proposed Project builds on three of these strategies, i.e:
  - Promotion of public awareness and participation;
  - Sustainable use of biodiversity resources;
  - Conservation of biodiversity integrated into development processes.
3. The NBSAP also sets out 25 basic Actions and the proposed Project draws upon many of these, including: compiling and implementing sectoral strategies in sustainable development related to biological diversity (Action 8); strengthening of economic and environmental concerns in national management system of biodiversity resources (Action 12), and; developing and implementing eco-tourism plans (Action 17).

#### Related Regional and Sectoral Developments

4. The Zagros Mountains play an important role in the development psyche of Iran. In addition to their biodiversity value, the mountains are recognised for having been the birthplace of important civilisations<sup>2</sup> and are also greatly valued as the source for approximately 40% of the nation's water supply. Finally, the mountains provide a home and a livelihood for approximately 10% of the population, and continue to be an important destination for many migrants and refugees. Hence, sustainable development of the Zagros mountains is a priority for the Government.
5. Although the importance of biodiversity conservation has been established in environment and development policy in Iran for some time, it is only in recent years that sectoral policy and programmes have started to mention the importance of nature and/or biodiversity conservation. For example:
  - In the forestry sector, the Ministry of Agricultural Jihad (MoAJ) is implementing the Programme to Protect and Develop the Zagros Forests, of which a principal stated objective is to conserve

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<sup>1</sup> NBSAP was approved on June 11<sup>th</sup>, 2002 by Environmental High Council (EHC).

<sup>2</sup> Recent archaeological findings suggest that villages have been established in the region for over 9,000 years.

biodiversity. Several other policy and programmes state the need to conserve biological resources in forests, pastures and on agricultural land<sup>3</sup>.

- In the water sector, the mandate of the Water Affairs Department of the Ministry of Energy (WAD/MoE) emphasises the importance of protecting the hydrological cycle and conserving catchments areas. Likewise, the Watershed Management Unit in MoAJ has issued policy statements stressing the importance of conserving biodiversity in relation to the protection of water resources;
- In the tourism sector, the recently formed Cultural Heritage and Tourism Organisation (CHTO), is obliged to take steps to co-ordinate the sustainable exploitation of the country's natural heritages, and to work closely with the Department of Environment.

#### NGO and Community Driven-ness

6. In recognition of the importance of the Zagros Mountains' ecosystem, a large numbers of NGOs have been established in recent years focussing on nature and biodiversity conservation in the Zagros Mountains. Nationwide, the total number of environmental NGOs increased drastically from 22 in 1997 to 550 in 2004. Of these, 51 are registered in the four Central Zagros provinces of Isfahan, Chaharmahal & Bakhtiari, Kohkiluyehh & Boyerahmad and Fars. In general, these NGOs have joint environmental and social objectives. In some cases, the NGOs have very specific objectives, for example a small number focus on developing sustainable tourism and recreation opportunities in the Mount Dena region.
7. In general, although the communities have lived in harmony with biodiversity for millennia in the Zagros mountains, this harmony has broken down in recent decades for reasons to be explained in the following sections. Presently, members of the communities do utilise biological resources, but in most cases without a full attention to sustainability. However, initial investigations undertaken at the development stage of the proposed Project<sup>4</sup> strongly suggest that most community members have an underlying support for sustainable use and biodiversity conservation.

#### Public Participation and Private Enterprise

8. Until recently, given the great social needs and the impact of the war on the economy, the approach to development in Iran was top-down and centrally driven. A supply-driven, 'government provide-for-all' approach came to dominate, and many rural people came to expect the government to provide a solution to their problems. Starting in the late 1990's, the Government started revising policies and taking steps to redress this approach, for example through:
  - Emphasising, in every sector, the importance of participatory planning and management;
  - Incrementally decentralising power and budgetary decision-making to provincial levels;
  - Creating democratically elected Islamic Village Councils in each village;
  - Privatising some state-owned enterprises, encouraging the small and micro-scale private sector, and incrementally strengthening the credit and loan system;
9. The proposed project is both dependent on and supportive of this evolution to a more bottom-up, private enterprise-driven approach to the sustainable utilisation of resources and to sustainable development.

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<sup>3</sup> More information on these programmes is provided in the Baseline Section 2Biii), and in Annex 2.9.

<sup>4</sup> See PDF B report "*Monitoring of Local Communities and the Evaluation of Rural and Urban Participation*", Dr. Panahi, 2004.

## **1B. Eligibility and Endorsement**

10. The Government of the Islamic Republic of Iran ratified the United Nations Convention on Biological Diversity (CBD) in June 1996.
11. All concerned national and provincial government agencies and many non-government agencies have participated in the project development process. The project has been endorsed by the GEF Operational Focal Point on 29 June 2004, and an official endorsement letter is attached in [Annex 2.6](#)

## **2. PROGRAMME AND POLICY CONFORMITY**

### **2A. Strategic Priority and Operational Programme**

12. The project fully meets GEF eligibility criteria under GEF Operational Programme no. 4 “Mountain Ecosystems”<sup>5</sup>. The project targets the sustainable use of mountain biodiversity resources<sup>6</sup>. The project integrates biodiversity conservation and sustainable use into land use and natural resources use management plans and supports integrated pilot projects providing improved livelihoods to indigenous communities in biodiversity rich areas. It demonstrates techniques for sustainably managing biodiversity important to agriculture. It includes awareness raising components. The project also modifies activities related to land use and sustainable development in order to protect biodiversity<sup>7</sup>.
13. Given that the project is implemented in the arid and semi-arid Zagros Mountains, it is also closely related to GEF Operational Programme no. 1, “Arid and Semi-Arid Ecosystems”, and given the importance of the region as a centre for plant and animal genetic diversity the project is also relevant to Operational Programme 13 on “Agrobiodiversity”.
14. The project follows closely the guidance provided by the GEF Council with regards to Strategic Priorities, and is based on the lessons learnt under the second operational phase of the GEF. The project corresponds to Biodiversity Strategic Priority 2, ‘mainstreaming biodiversity into production landscapes and sectors’. The Zagros Mountains are a complex production landscape with important nature protection areas. The primary economic sectors in the mountains are related to natural resources: agriculture, forestry, rangelands and water. The mountains also have a great potential for tourism. The project, at the landscape and village levels, aims to maintain biodiversity by effectively mainstreaming biodiversity conservation and sustainable utilisation into the natural resources and tourism sectors.
15. The proposed Central Zagros Landscape Conservation Zone includes many protected areas. There is a strong inter-relationship between the natural resources and tourism sectors on the one hand, and the protected areas on the other. The project will help strengthen the relationships between sectoral management and protected area management, making these mutually supportive.

## **2B. Project Design**

### **2Bi) Project Context**

#### **Geographical Context**

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<sup>5</sup> ‘*GEF Operational Programs*’; GEF, 1997.

<sup>6</sup> GEF (1997) para 4.9 (a)

<sup>7</sup> Op. cit, paras 4.18 (a), (b), (g), (j) and para 4.19 (a).

16. The Islamic Republic of Iran covers 1.648 million km<sup>2</sup> and lies between 25° and 40° N. It is situated at the confluence of three climatic zones – the Mediterranean, the arid West Asian and the humid/semi-humid Caspian zone. It is highly mountainous, with an average altitude of 1200m a.s.l, and many peaks over 4,000m. The complex and varied climates, topography, geological formations and anthropological management of natural resources for many millennia have led to a varied and unique biological diversity.
17. The Iranian ecosystems support over 8,000 recorded species of plants (over 2,500 endemic), over 500 species of birds, 160 mammals and 164 reptiles (24 endemic). This includes a large number of wild relatives of commercial species – both plants and animals, confirming Iran’s status as a centre of genetic biodiversity. Also, a large number of Iran’s plant and tree species have traditional uses as medicines, aromas and pigments. Iran has a varied but generally harsh climate – typically arid with large temperature fluctuations, but also large rainfall fluctuations. Many species and varieties have successfully adapted to surviving in these harsh conditions.
18. The Zagros region lies to the West of Iran, stretching from close to the north-western border with Turkey, parallel to the border with Iraq down to the Persian gulf and stretching inwards towards the central deserts of Iran. The region is approximately 1,500km long, 400km wide at its widest, and covers approximately 400,000 km<sup>2</sup> or one quarter of Iran. The Zagros Mountains, covering 70% of the Zagros region, stretch from North-West to South-East, and generally divide the Mediterranean climatic zone (to the west of the mountains) from the arid-West Asian zone. The Zagros ecosystem falls into the Palaearctic realm (see Map 1 in [Annex 2.5](#)).

#### Institutional Context

19. The ultimate decision-making and coordination mechanism for environmental affairs is the Environmental High Council (EHC), chaired by the President of the Republic. This multi-sectoral, governmental body meets regularly to approve environmental policies and legislation<sup>8</sup>, and to ensure that environmental policies are integrated into social and economic policies and plans. One level lower, the National Council for Sustainable Development (NCSA) is responsible for policy development and implementation – including the mainstreaming of environmental issues into the work programmes of all government agencies. The NCSA has 18 members, including academic and NGO representatives. The NCSA works primarily through its 11 Sub-Committees, of which one of the most active has been the Biodiversity Sub-Committee.
20. The Department of Environment (DoE) has overall responsibility for nature and biodiversity conservation, for implementing the NBSAP and for meeting Iran’s commitments to the CBD. DoE is headed by a Vice-President of the Republic, and reports directly to the President, placing it higher than most line ministries in the government administration. This high standing reflects the fact that, in order to achieve its goals, DoE must coordinate with other agencies, and must be able to mainstream environmental objectives into sectoral development. DoE provides the Secretariat for the EHC and the NCSA. DoE has affiliates in each of the country’s 28 provinces. The main responsibility of the provincial affiliates is to implement the national programmes in the concerned province.
21. The Protected Area Network (PAN) is, at present, the main tool for conserving biodiversity and nature in Iran. DoE is responsible for managing and implementing most of the PAN. The first protected areas were established in the 1960’s in order to protect game for hunting. There are now four categories of protected land: (in order of decreasing protection) National Parks, Wildlife Refuges, Protected Areas and no-Hunting Zones. This system is managed through the DoE provincial offices, and in many rural provinces this is the main activity and objective of the DoE office.

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<sup>8</sup> For submission to parliament, when appropriate.



22. The Management and Planning Organisation (MPO) is responsible for approving all major national plans and programmes and for approving all budget allocations. The provincial MPO is responsible for allocations made from the provincial budget. Through this mandate, MPO is able to some extent to coordinate the many national programmes and activities of various sector agencies. In addition, in order to facilitate coordination of land-use, at the national level the MPO recently established the inter-ministerial Land-Use Planning Group.
23. Financial resources in Iran are largely allocated through national programmes. Initially, in close cooperation with the provincial MPO, the provincial line agencies submit proposals to their national agency (for example, each provincial DoE submits proposals to the national DoE). The national agency reviews and revises the proposal in cooperation with the national MPO. The MPO determines the distribution across agencies. MPO then allocates funding to programmes in the provinces through the provincial MPO offices. Whereas programmes are generally approved in principle for five yearly or longer periods, budgets are only approved annually in line with the existing annual budget<sup>9</sup>.
24. The Ministry of Agricultural Jihad (MoAJ) plays a key role in natural resource management and rural development. MoAJ is responsible for forest, rangelands and agricultural lands. It is also responsible for watershed management and for nomadic affairs. MoAJ responsibilities include implementing well-funded physical infrastructure projects, controlling land-use on state-owned land – especially forest land, and projects providing technical support to communities. It implements projects aiming to improve agricultural and rural development. Key agencies within MoAJ include:
- Research Institute for Forest and Rangelands (RIFR) – responsible for research, monitoring and policy preparation;
  - Forests, Rangelands and Watershed Organisation (FRWO) – directly responsible for programme and project implementation. Significantly, FRWO is responsible for protecting forests on the large areas of nationally owned forestland. FRWO is responsible for many protected areas. Community activities are greatly restricted on these areas;
  - Nomadic Affairs Bureau (NAB) – largely responsible for overall policy regarding nomads, for integrating nomadic concerns into other policies and related coordination, and for providing social services to nomadic communities;
  - Department of Women and Pastoral Affairs (DWPA), with programmes to support women and women headed families in rural areas, including training and micro-credit programmes.
25. MoAJ was formed by the recent merger of two large ministries. Since the merger, many organisational changes have taken place within the Ministry – for example the formation of the FRWO. The fact that these major changes were only recently undertaken means that some duplication and coordination challenges within the Ministry have yet to be fully resolved. Also, at the provincial level, many agencies have not yet merged, for example watershed management is usually separate from forests and rangelands management at the provincial level.
26. Other key agencies involved in natural resource management include:
- The Water Organisations within the Ministry of Energy are responsible for water management, including construction of water management infrastructure, distribution of water to users. In some cases, the Water Organisations also have responsibilities related to catchment protection;
  - The Cultural Heritage and Tourism Organisation (CHTO), with responsibilities related to protecting cultural and natural heritage, and to promoting eco-tourism.

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<sup>9</sup> Annual budgets fluctuate significantly in Iran, given the high contribution of oil resources to the national income and the fluctuation in the oil price.

## Provincial and Regional Institutions

27. In line with the ongoing decentralisation process, provincial governments play an increasingly important financial, political and technical role in supporting sustainable development in Iran. The scale of this role, both overall and in specific sectors, varies from province to province in line with provincial capacity. The leading decision-maker at provincial level is the Governor-General, who is the direct representative of the President. One Deputy-Governor General is responsible for sustainable development including natural resource management. Key responsibilities of the Governor General's office may include:
- Allocation of the provincially generated budget;
  - Ensuring that programmes funded by the national government<sup>10</sup> are implemented appropriately;
  - Participating in the recruitment and management of human resources that are funded by the national programmes<sup>11</sup>.
28. In each province, Governor-Generals have established Provincial Planning Councils (PPC) to ensure the coordination of all nationally funded policies and programmes. All main government departments, including DoE, are represented on the PPC. In order to facilitate natural resources management and coordination across related sectors, PPCs have established Land and Agricultural Working Groups (LAWG), in which the provincial FRWO and DoE take a leading role.
29. In order to stimulate development across the region, the national government recently established the Coordinating Committee for the Development of the Central Zagros (CCDCZ). The CCDCZ has 40 members who are prominent nationally and originate from the central Zagros Mountains. The role of the CCDCZ is to coordinate across provinces and draw attention to the development needs and opportunities. The secretariat is in the Ministry of Interior, although the Council has limited implementation capacity at present.

## The Central Zagros Landscape Conservation Zone

30. The proposed Central Zagros Landscape Conservation Zone (the *Conservation Zone*) lies in the middle part of the central Zagros Mountains (see Map 2 in [Annex 2.5](#)). The Conservation Zone, which is representative of the overall Zagros Mountains in ecological and social terms, contains:
- Extreme topographic and climatic diversity, giving rise to globally significant biodiversity in the form of unique ecosystems and habitats, rapid changes and complex mosaics of ecosystems, large species diversity and important genetic resources;
  - High levels of interaction between the inhabitants, including nomads, the economy and biodiversity, and;
  - Excellent opportunities for improving the sustainable utilisation of biodiversity in order to generate both biodiversity and economic benefits.

The above are elaborated in the following sections.

31. The proposed Conservation Zone straddles four provinces. It covers almost all of Chaharmahal & Bakhtiari province, large parts of Kohkiluyeh & Boyerahmad province, and most of Eghlid and Marvdasht districts in Fars province and Semirrom district in Isfahan Province. The total area is

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<sup>10</sup> Although the total budget allocated to a province is decided nationally by the MPO, in some provinces the Governor-General's office may be able to negotiate a re-allocation of the distribution of this budget across sectors in the province.

<sup>11</sup> The importance of this should not be underestimated. For example, in Isfahan province, the provincial FRWO employs 4,000 persons directly, but nationally funded FRWO programmes employ a further 56,000 staff.

approximately 25,000 km<sup>2</sup> and the vast majority of land is comprised of forests, rangelands or cropland (see Table 1). Approximately 87% of the land is under the direct management of government agencies, including the forests, rangelands, mountains, rivers and mines.

**Table 1: Land use in the Central Zagros Landscape Conservation Zone**

Province/districts	Area (Hectares)	Crops	Range	Forest	Orchards (Approximate)
Semirom	445,655	24,460	195,990	691	8,800
Eghlid	105,810	2,745	16,674	9,989	3,200
Marvdasht	92,980	9,940	11,600	25,000	8,000
Boyerahmad	368,000	110,164	100,696	221,748	8,000
Chaharmahal	1,487,700	753,040	754,960	205,600	24,000
<b>Total</b>	<b>2,500,145</b>	<b>900,349</b>	<b>1,079,920</b>	<b>463,028</b>	<b>52,000</b>

32. The total population in the CZLCZ in 1996 (the date of the last nationwide census) was approximately 999,761 with almost half of this population living in the towns and cities. However, according to population<sup>12</sup> estimates for the year 2004 this figure has increased to 1.15 million in the Project zone. The same estimation shows that in the four provinces included in the Project zone, around 55-60% of the population in 2004 is in urban areas and the rest in rural areas. In addition, the average annual growth of the population in these four provinces i.e. Isfahan, Fars, Kohkiluyeh & Boyerahmad, and Chaharmahal & Bakhtiari during the period 1986 to 1996 was 1.83, 1.94, 2.68 and 1.70 respectively. The 1996 national census also shows that the number of immigrants entering the Project zone (within 10 years) was approximately 157,000, out of which 1,400 were refugees from abroad. The same census shows that of the families living in rural/urban areas of the zone (excluding nomads) more than 75% are literate, more than 95% have electricity, more than 90% have access to safe drinking water and more than 40% have telephone lines in their homes. The average annual growth of GDP per capita at the national level is estimated 4.5% during 2002-2006, which is a significant increase compared with the trend observed during 1982-92, being -1.2%.
33. The natural resource management sectors are the mainstay of the economy across the proposed Conservation Zone. The main crops are wheat and barley; other important crops include rice, alfalfa, apples, almonds and grapes. Efforts to develop the industrial sector, including private sector investments, have been limited. However, in the major cities near the Conservation Zone – notably Isfahan and Shiraz, the industrial sector is the main component of the economy.
34. The main socio-economic challenges are unemployment, low income, relatively poor infrastructure and poor communications. For example, in Chaharmahal province, the official unemployment rate stood at 17.5% in 2000. Given these social pressures, many young people travel to nearby cities to seek work. Accordingly, the rural population is slowly declining, despite the high fertility levels. From some districts, people travel to other countries (principally to the Gulf States) for paid work. Notably, overseas remittances to Chaharmahal in 2003 were estimated to be over \$6.5million.
35. The proposed Conservation Zone is highly mountainous; all land is over 1,000m and most is over 2,000m asl. It is the source of much of Iran's water, and many of Iran's important rivers. The average annual precipitation is approximately 500 mm (well above the average for Iran). The Conservation Zone is the source of 92 rivers flowing into southern, western and central Iran.

### The Nomadic Population

<sup>12</sup> By National Centre for Statistics based on nationwide census of 1996.

36. Until as recently as the middle of the last century, the vast majority of people in the Conservation Zone lived a nomadic lifestyle. Starting in the early 1960s, government development programmes focused on facilitating the settlement of the nomads, and large numbers of nomads settled down in the subsequent decades. In recent years, the government has adopted a more flexible and responsive approach to supporting nomads. Government programmes now focus equally on supporting existing nomadic lifestyles or facilitating sedentarisation, although the emphasis varies across provinces. The three most important nomadic tribes using the Conservation Zone are the Qashqai, Jarghoye and Bakhtiari.
37. The above-mentioned government policies, population growth, and socio-economic opportunities in the nearby urban areas have led to a transformation of the nomadic community, which is now highly stratified into the following categories:
- Internal Migrants: These are nomads with limited geographical migration. They migrate within the precincts of one province. The distance covered by them is between 30 kilometres and 70 kilometres.
  - External Migrants: These are nomads who still migrate from one province into the precincts of another province. For example, tribes whose upcountry grazing pastures are in Chaharmahal & Bakhtiari province and winter grazing pastures are in Khuzestan.
  - Semi-Migrants (or Flock Herders): These nomads have largely settled down. In general the women and children do not migrate at all. At the time of the summer migration, some family members (or hired shepherds) transfer the livestock to lands where food is plentiful. The distance they travel may be within the precincts of the province or outside of it.
  - Settled Down: These are the tribes-people who no longer migrate. They have settled down and live in villages. They make a living out of fixed agricultural practices, or from non-agricultural practices such as mining or even in the service sector.
38. Until recently, the traditional political decision making systems and resource management structures of the nomadic tribes were poorly understood or appreciated. Hence, the initiatives to settle tribes in the early 1960's did not respect the existing structures. For example, although a sophisticated form of land ownership and management was in place, all land was nationalised. This meant that traditional management systems could no longer be used, yet no alternative management system was introduced. The result was a near vacuum in local decision-making process and land management for over two decades. In this time, the population grew tremendously, and much knowledge and techniques were lost or forgotten as the tribal elders passed away or moved into new, settled lifestyles. Accordingly, it is now very difficult to restore the original management and decision-making structures.

#### Biodiversity in the Conservation Zone: Existing management and utilisation mechanisms

39. The high topographic diversity and related climatic diversity give rise to significant ecological gradients within the Zone which gives rise to high ecosystem diversity over relatively small areas. This, in turn, leads to a large diversity and complex mosaic of habitats – many of which are unique – and to high species diversity. The harsh and rapidly changing climatic conditions mean that many habitats and species exhibit high resilience, which may be of value in future climate change scenarios. Finally, the Zone contains very significant genetic biodiversity, being an important centre of origin for many species, hosting many wild relatives of commercial species, and having important on-farm genetic biodiversity (both crop varieties and livestock races).
40. Topographic diversity and ecological gradients The Zagros Mountains extend along the entire western flank of Iran from the Caucasus Region to the Persian Gulf, up to 400 km wide at some points. The mountains were formed through the collision of the Indo-Australian and Arabian Plates and the Eurasian Plate – the same tectonic mechanism that created the Himalayas – and the Zagros Crush Zone is still a geologically “active” area today with frequent earth tremors and quakes. The Central Zagros area is

characterized by a series of eroded and faulted anticlinal ridges, with the folded salt domes on the western flank containing the country's substantial oil deposits. Within the Conservation Zone, the arid conditions and minimal vegetation cover allow the results of the tectonic processes to be readily observed – with the sedimentary and metamorphosed strata weathered into rather stark and beautiful landforms in many locations.

41. The uplifted sedimentary (often limestone) rocks have given rise to a classic “karst” geomorphic landscape with extensive evidence of cave formation and examples of spectacular calcium carbonate deposition (eg. in the *Lost Paradise* Protected Area). The hydrologic pattern is unusual; it includes several river systems that are transverse through the range indicating either a “superimposed” or more likely “antecedent” river systems. Given the continuing uplift throughout the area, there are some eroded and faulted mountain scarps with a relative relief of well over 2000m. This is greater than, for example, most of the European Alps and similar in scale to the Grand Canyon in America (in Sabzkouh Protected Area in particular). These features combine to make the Zagros mountains unique and rare at a global scale.
42. Ecosystem and Habitat Diversity Although difficult to quantify, the ecosystem diversity of the Central Zagros Mountains is high, resulting from the significant variation in meso- and micro-climatic conditions; wide variety in surface hydrologic conditions; and wide variation in the suitability of the landscape for human use and cultivation.
43. The highest peaks are up to 4,500 m high. Below this, rapid changes in elevation lead to a diversity in ecosystems. Above 3500m, the precipitation is light and mainly snow. At these heights the vegetation is mainly alpine, with junipers and then pastureland dominating. Between approximately 1200 - 3500m, the mountains are dominated by oak forests, with the trees becoming increasingly thicker at lower altitudes. The land between the oak trees is covered by a wide variety of plants, shrubs and bushes. Below 1200m, the climate is warm and sub-tropical. The more northern and eastern lower lying lands are dryer and almost desert-like, whereas the southern and western low-lands are semi-arid. Almond and pistachio are two of the dominant species at lower altitudes. The steep relief mean that in many cases these vastly different ecosystems lie close to each other.
44. The Project zone constitutes one of the most important centres of endemism not only in the country but also in the region. According to a comprehensive study conducted by the Research Institute of Forests and Rangelands (RIFR), Chaharmahal and Bakhtiari Province with an average of 28.3 endemic species per million hectares encompasses the highest rate of endemism in the country. The area is also the land of origin of some worldwide important plants such as tulip and apple. The special characteristics and values of the ecosystems and habitats in the Zone include some of the following aspects:
  - Forests cover an approximate area of 460,000 ha. The most significant aspect of Zagros forests is their unique oak vegetation cover. There are four different oak species in the whole Zagros area namely *Quercus infectoria*, *Q. persica*, *Q. lusitanica* and *Q. Libani*. All these four species are endemic to Iran from which the three first ones are found in CZLCZ.
  - Rangelands, steppes and grasslands that cover approximately 1,080,000 ha of CZLCZ. More than 1,500 species of legumes, graminiae, shrubs and trees constitute the vegetation cover of rangelands and steppes, of which more than 10% are endemic.
  - At least 10 seasonal wetlands and lakes are found in the area. There are two wetlands in the Zone, namely *Choghakhor* and *Gandomaan*, that are candidates for inclusion in Ramsar list of internationally important wetland sites.
  - Over 950,000 ha of the area consists of farmlands and orchards in which different products are being harvested. Wheat, barley, rice, vegetables, foliage crops, different fruits. etc.

Landscapes in CZLCZ are important not only from biodiversity point of view but also for their artistic, spiritual and recreational aspects.

45. Potential impacts of climate change: Pattern analysis of temperature and precipitation records indicates that temperatures are on the rise in the northwest; part of the south, and east of the country, especially along the Zagros Mountain range. However it is too early to conclude that Greenhouse Gas (GHGs) emissions are the main cause of the difficult weather conditions (primarily drought related) that were experienced during previous years. In order to provide an understanding of what would happen if the GHG emissions are not dealt with properly, six scenarios were designed. These scenarios represent selective combinations of two GCMs (General Circulation Models), three emission scenarios and three different climate sensitivities. These combinations apply three GHG emission conditions: low emission rate, maintaining the present rate, and high emission rate. The same combinations were used to predict precipitation changes in the country. According to some research studies, the effects of climate change can be observed on different aspects of natural resources and sectors in the Project zone. Runoff models applied to basins show that the temperature rise increases the runoff volume during winter and decreases it during spring as rising temperature melts snowfall into rain and hastens the time of snow melt. It also affects runoff of basins and decreases the amount of runoff variation of rainfall. Different figures show that agricultural areas are highly vulnerable to climate change. The predicted increase in temperature could lead to loss of pollen viability in maize, reversal of vernalization in wheat, and reduced formation of tuber bulking in the potato for the areas near the threshold. The changing climate is likely to affect wheat, which is the main staple crop, and may also have a profound impact on the forestry sector. This includes changing the habitat location of forest species, especially the less tolerant ones and the extinction of low tolerance species. The natural regeneration regime of forest plants could be upset and result in the reduction of timber and non-timber production in forests. Forests may witness pests and plant disease infestation and an intensification of land erosion, particularly in semi-arid zones located in the Zagros mountain ranges, where climatic conditions are extremely harsh. In rangelands the reduction of precipitation, could cause the trees, bushes and grasses to become progressively and excessively weak, and insufficiency of plant production could force some animals and ruminants to revert to trees for accessing their food needs at the expense of tree bark and the cambium layers. This could create optimum conditions for the invasion of pests and plant diseases, as well as the destruction of vegetation cover<sup>13</sup>.

#### Species and Genetic Level.

46. The information on species and genetic level is incomplete. Most existing information relates to Sabzkuh and Mount Dena protected areas (see Map 2 in [Annex 2.5](#)). From these two areas, we can ascertain the following:
47. The Conservation Zone contains at least 2000 recorded plant species, ranging from high mountain species (*Juniperus excelsa*, *Colpodium violaceum*, *Dracocephalum surmandium*, *Nepeta chinophilla*, *Salvia kallarica*, *Cousinia archibaldii*, *Scarzenera nivalis*), rare steppe species (*Ajuga saxicola*, *Hypericum dogonbedanicum*), arid-land/desert species (*Salvia rechingeri*, *Scorzonera ispahanica*) and humid sub-tropical species (*Myrtus communis*, *Aegilops speltoides*). Endemism is high with at least 200 documented endemic species.
48. The region contains many wild relatives of important commercial species, for example wheat, grape (*Vitis vinifera*) and tulip (*Tulipa spp.*). Mount Dena alone contains over 1000 recorded plant species, of which at least over 250 are known to be utilised traditionally. These are used for food, medicine, aromas and pigments. The unique oak forests include three species of oak, one of which has two varieties (*Quercus brantii persica*, *Quercus brantii belangeri*, *Quercus infectoria*, *Quercus libani*), with a high genetic diversity – e.g. 180 different kinds of acorn have been recorded in the area. More detailed information on species harvested to be used by man is provided in [Annex 2.7](#)

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<sup>13</sup> Source: initial national communication to UNFCCC, March 2003

49. The Conservation Zone also provides a good habitat for important large mammals, such as Ibex (*Capra aegagrus*), sheep (*Ovis ammon*), bear (*Ursus arctos* IUCN red-listed as vulnerable), leopard (*Panthera pardus*) and the Persian Squirrel (*Sciurus anomalus* – endemic to Iran and Lebanon, and IUCN red-listed as endangered). Other mammals found in central Zagros include wolf (*Canis lupus*), boar (*Sus scrofa*), fox (*Vulpes vulpes*), jackal (*Canis aureus*) and hyena (*Hyaena hyaena*).
50. There is little reliable scientific information regarding the on-farm agricultural biodiversity. There are an estimated 100 indigenous breeds of domesticated animals, which are considered to have important characteristics such as resistance to diseases and parasites, greater resilience, higher fecundity, and adaptation to drought and high temperatures. Thousands of years of breeding of farm and rangeland crops and animals suggest the existence of many rare and unique breeds and farming methods. In terms of agricultural crops and land races the situation is the same i.e. reliable information on this sector is scattered, however it is known that over 200 local varieties of crops, foliage and fruits are being cultivated there. Although there are a few genetically modified varieties of land races spread over the area, most of the farmers use local varieties since they are cheaper, easy to produce and more resistant to different climatic conditions, pests and diseases across the area. The main cereals found in the area are wheat, barley and rice. Both irrigated and rain fed wheat and barley are found across the area since the precipitation is quite enough for dry land farming in some locations. The approximate production of wheat in the area in year 2002 was 793,000 tons, almost 8% of total wheat production in the country. Other important agricultural products of the area are: peas, beans, lentils, sugar beat, oil seeds, potato, onion, tomato, cucumber, alfalfa, cloves, etc.
51. The ecosystem diversity also provides for a wide diversity of birds, with 240 species having been recorded in the Zagros central mountains, including the following listed species: Osprey, Golden eagle, Peregrine falcon, Barbary falcon, Lanner falcon, Seker Falcon, Lesser kestrel, Bearded vulture, Franklin, Marbled Teal, White-headed duck, Ferruginous duck, See-see partridge, Lesser white fronted goose; White-throated robin, White stork, Black stork, Persian Snow Cock, *Tetraogulus Caspius* ssp endemic to Zagros. The region is also very rich in insects. For example, there are over 150 species of butterflies recorded, of which 17 are endemic. See [Annex 2.7](#) for more information on species biodiversity in the Conservation Zone.

#### Biodiversity Utilisation and Value.

52. Few systematic, large-scale studies of local biodiversity use have been undertaken. At the Conservation Zone level, it is known that biodiversity has been and continues to be a lynchpin of both economic and social development. Some estimates suggest that harvesting of wild plant and animal species accounts for up to 50% of the cash income of poor households<sup>14</sup>. The natural environment is often a source of raw materials that provide a basis for traditional medicine and health care “systems”. The hunting of birds and animals plays a key role in nutrition and cultural activities. Wood is used for construction, fuel and furniture. Gums are used for making cosmetics, medicines and industrial glues. At least 14 species are collected for food (See [Annex 2.7](#)). No estimation is available of the aggregate number of species used for medicine, aroma and pigments.
53. In addition to local use, the biodiversity has the following broader and global values:
- Existence and tourism value, much of the latter being associated with the spectacular mountain ranges;
  - The likelihood that local varieties or wild relatives of important crops contain genes that could be of great economic use, for example genes providing resistance to climatic changes and to harsh climates;

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<sup>14</sup> Dr. Panahi (2004)

- Contribution to the overall ecosystem integrity, notably helping to maintain the hydrological cycle, and so the water supply to millions;
- Habitats for unique and endangered species.

54. Biodiversity Management Both DoE and MoAJ have responsibilities related to nature conservation. A total of over 40 protected areas have been established (see [Annex 2.7](#)), varying in size from 1 to 89,000 hectares. In total, these protected areas cover 460,000 hectares, well over 10% of the Conservation Zone. The most important protected areas are indicated in Map 2 in [Annex 2.5](#). DoE is responsible for the full protection of large areas of land. MoAJ's role is through the provincial FRWO and through the provincial Agriculture and Natural Resource Research Centres (ANRRC). This role is largely limited to protecting trees or maintaining vegetative cover – in general animals are not protected on MoAJ land, and the land between trees can be heavily grazed
55. Biodiversity Distribution As mentioned in the previous paragraph, there are at least 40 separate areas benefiting from some kind of protection in the Conservation Zone. In general, these areas are the richest in biodiversity terms – and the core areas of the DoE protected land are the richest, with healthy populations of both flora and fauna. The protected areas form a mosaic across most of the Conservation Zone – although none of them are large enough to provide a suitable habitat for large mammals. However, the Conservation Zone is a vast landscape. Large areas of healthy pastures and forests, and hence biodiversity, lie outside the existing protected areas.
56. In general, the protected areas were established to protect large species (eg sheep, goats and wolves), and most of this biodiversity is in protected areas. Much biodiversity, however, can be found outside of these protected. Most of the biodiversity of commercial use to agriculture – both wild relatives and on-farm – lies outside the existing protected areas.

#### 'Typical' Communities in the Conservation Zone

57. Outside of the few large urban areas, most inhabitants live in small villages. During the project development phase, three such villages<sup>15</sup> were surveyed and analysed in order to better understand their interactions with biodiversity and identify strategies for change and improvements. Two of the villages (Darreh Yas, population 420, and Ma'dan, population 1500) lie in a thin stretch of land between Sabzkuh and Helen protected areas in Chaharmahal & Bakhtiari provinces. The third, Seesakht, population 6,356, lies on the western edge of Mount Dena Protected Area in Kohkiluyeh & Boyerahmad Province. Map 2 in [Annex 2.5](#) indicates the location of the villages.
58. Maps 3-9 provide participatory sketches of the villages and their interaction with the surrounding natural resources and protected areas.
59. Although very preliminary, the survey findings<sup>16</sup> suggest several trends and commonalities across the villages. As can be seen from Table 2, for the villages surveyed, income levels rise with literacy, whilst the percentage of villagers employed in farming declines, and the level of *direct* interactions with the natural resource base also declines (indicated by the number of livestock and the area of cultivated land).

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<sup>15</sup> No two villages are the same in the Conservation Zone, hence these villages cannot be considered representative. However, they can be considered typical.

<sup>16</sup> The surveys were rapid and selective and are not considered authoritative, but indicative.



**Table 2: Socio-economic indicators from the surveyed villages**

Village	Literacy levels (%)		Percentage employed as Farmers	Income per surveyed family	Area of cultivated land	Number of Livestock			
	Illiterate	High School diploma				Cows	Sheeps	Goats	Hen
Si-Sakht	19.4	43.5	19.0	21,936*	21	24	270	110	950
Dareh-Yas	47.4	0.0	92.0	53,437	44	58	418	620	910
M'a-dan	42.9	5.7	89.0	85,038	55	81	682	1,360	1319

\* Note: This Figure includes only agricultural income per surveyed family excluding other sources. Many families in Si-Sakht have sources of income other than agriculture.

60. The survey findings also indicate the high importance of the natural resource base to livelihoods in the Conservation Zone. Natural products are routinely used for construction, fuel, food and medicine. For the villages surveyed (see Table 3), a significant part of the family income comes from medicinal and nutritional plants harvested in the wild. Moreover, the vast majority of these plants are currently harvested in protected areas. Even for livestock, between 35 and 70% of the fodder comes from the nearby protected area.

**Table 3: Source of income in surveyed villages, in US\$**

Source of Income	Si-Sakht			Dareh-Yas			M'a-dan		
	S	SC	PHPA	S	SC	PHPA	S	SC	PHPA
Agriculture	141	94	0	61	41	0	55	37	0
Livestock	8,882	22,147	35	37,376	34,818	70	60,071	75,739	60
Fuel Woods	0	148.5	15	0	13,706	40	0	16,900	45
Medicinal Plants	4,000	706	90	906	388	90	2691	897	90
Nutritional Plants	5,956	1,985	60	529	353	75	2372	1,581	80
Others (e.g. honey, ...)	106	12	20	102	16	30	447	24	30

Note: S1: Value of products sold per family; SC2: value of products consumed by the per family; PHPA: The Percentage harvested from Protected Areas

61. Some other general findings from the surveys include:

- In general, most villagers and nomads expressed a desire to lead a more modern lifestyle. This is consistent with the observed out-migration from rural areas to urban areas and cities, especially of the younger people;
- It is extremely difficult to distinguish between settled villagers and nomads. Most surveyed people lie on a continuum, having some fixed land and property, but also having some animals that migrate for a period each year;
- Few people admit to hunting, even though the level of hunting is known to be very high;
- Most of the resources collected from the forests and rangelands are consumed in the households and are not exchanged in the marketplace;
- Some products gathered in the forest are collected by an intermediary and transported to industrial processing facilities; demonstrating the potential benefits of biodiversity resources;
- Two types of resident can be identified: natural resource managers from indigenous communities, who have had a long association with the land they use, and are willing to invest in its maintenance;

and new-comers or displaced populations, whose association with their land is relatively new and weak, and hence they seem to be more willing to sacrifice the quality of their land assets for short-term financial gains;

- Land-use and livelihoods are very complex; there is little time for underemployment, as extra cash must be earned from seasonal work;
- The (recently introduced) Protected Areas have had a significant impact on resource use and attitudes. Resource use has declined greatly in the core protected areas, but this is not generally appreciated by the local people, who are not fully informed and feel unlikely to benefit from the improvements. This is a source of both confusion and tension. In many cases, local people are unsure of the geographical borders of the Protected Areas;
- The term 'biodiversity' is unknown, but the concept is familiar. With a small effort, it is possible to raise awareness significantly and start a process of transforming attitudes towards a sustainable biodiversity use;
- The level of dependency seems high. Local people trust government officials and outside academics, and await assistance to overcome challenges. However, the potential level of enterprise also seems high, with villagers having many ideas as to how their livelihoods and how the biodiversity status can be improved;
- Although traditional technology is widely used, traditional management mechanisms and conflict resolution mechanisms are largely unknown and unused. Likewise, there is little information or understanding of sustainable carrying capacity of the land.

## 2Bii) Threats to Biodiversity and their Underlying Causes

### Threats

62. There are two main direct *threats* to biodiversity in the Conservation Zone: unsustainable agriculture and over-harvesting of biodiversity products. These are acting alone and in combination to lead to a drastic degradation of biodiversity. The resulting fragmentation of habitats makes it increasingly difficult for large mammals to find a sufficiently large contiguous habitat. In addition, there are many smaller and localised direct threats.
63. The following paragraphs provide a short introduction to the threats and their root causes. [Annex 2.10](#) provides a full analysis. Annex 2.10 also assesses how the current baseline is attempting to address the threats and root causes, and determines barriers to implementing the baseline strategy along with gaps in the strategy.
64. Land conversion. The land is very mountainous. Every available spot of flat or low-slope land is converted to agriculture: rain-fed wheat or in some cases irrigated rice and other crops. To convert the land, the shrubs and grasses between the trees are cleared, but *usually* most of the trees are left standing. Given that the soil is very fragile and thin, the fields are only productive for 2-3 years. After this period, the field is left fallow or completely abandoned, and the farmer moves on to a new field. However, in many cases it does not regenerate, largely due to the fact that the land continues to be heavily grazed and no plants are allowed to grow. Slowly, the land is destroyed, and the endpoint is old trees interspersed across a desert landscape. In addition, near to urban areas, agricultural land is being lost to urbanisation, leading to an increased demand for new agricultural land. The situation is exacerbated by enhanced soil erosion, which commonly reaches 10 tons/hectare/year.
65. Unsustainable harvesting of biodiversity products. This includes over-grazing, over-collecting of wood and non-timber forest products, and hunting. It is estimated that there are up to six times more livestock in the Conservation Zone than can be sustainably carried with present grazing practices. The livestock, principally sheep and goats, cause damage to pasture lands stopping re-generation. In

combination with the land conversion (previous section), they inhibit the growth of new trees, thereby condemning the forests to a slow decline.

66. Few figures exist regarding hunting levels. Anecdotal information suggests that the level of hunting is as high as possible, and has had a devastating impact on animal numbers, and only the most remote populations have survived. Woodfuel collection is also contributing to the decline of the ecosystem. Although this has declined greatly in recent years due to government-sponsored programmes, it remains a significant threat at some sites. Finally, non-wood forest product collection<sup>17</sup> is a threat at some sites. In general, the plants are collected for local use, but the level of harvesting is damaging the overall health of the population. Species collected include mountain leek, acanthus, wild garlic, shallot, rhubarb, peppermint, wormseed, rose, thyme, mushrooms, acorns, marjoram, zarabi and brinjal.

### Root causes

67. The causes underlying the threats are complex and site specific. There is no simple linear relationship between causes and threats; rather there are many complex relationships and inter-relationships that may act differently at different sites. It is important to note that the causes underlying the threats may result from actions and decisions taken at many different geographical levels, notably national, provincial and village.
68. Many of the causes of biodiversity loss can be traced back to national policy and programmes. In the early 1960s, misconceived programmes to nationalise land caused a breakdown in the traditional nomadic management systems, and provided no alternative management system. In recent years there have been some incomplete efforts to reverse these moves, for example by experimenting with new systems of land tenure. Other recent policies have had negative impacts. For example, the highly subsidised wheat price provides an incentive to villagers to grow wheat, even on inappropriate land. Likewise, water is undervalued, meaning that the water-catchment function is also undervalued.
69. Across the four provinces in the Conservation Zone, population growth, poverty and new opportunities to make a profit have combined to increase the pressure on natural resources and biodiversity. The impacts of increased population can be mitigated and even reversed by technological improvements, however there have been few efforts to introduce new pastoral, forestry or agricultural technologies. Activities are largely un-regulated, neither by government nor by traditional management systems, and the low level of land tenure means there are large incentives to make as much rapid profit as possible.
70. Most villages continue to practice livelihoods based on practices developed centuries ago. However, the breakdown of community and tribal management systems in recent decades has meant that there is little regulation, and little incentive for sustainable practices. Sedentarisation and modernisation have also increased the opportunities available to nomads, whilst at the same time causing a disassociation between the nomads and their former land. Population growth has meant that many traditional practices are no longer sustainable. Carrying capacities are unknown or unappreciated. Unfortunately, new technologies (such as motorised vehicles and freely available guns) mean that the amount of harvesting each rural dweller can do in one season has greatly increased.

As mentioned above, [Annex 2.10](#) provides a full description of root causes.

### 2Biii) Baseline Situation

71. The Baseline strategy to conserve biodiversity in the Conservation Zone is based on two pillars: strengthening the protected area network in the Conservation Zone and; mainstreaming biodiversity

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<sup>17</sup> This analysis also applies to biodiversity products harvested from the pasture lands.

conservation into the agriculture, rangelands and forestry sectors. There are many barriers to implementing this baseline strategy, notably to the latter pillar of mainstreaming biodiversity into agriculture, rangelands and forestry sectors. Moreover, the baseline strategy is incomplete and misses several opportunities. The Alternative project, with GEF support, will help overcome barriers and exploit opportunities for mainstreaming biodiversity into development in the Conservation Zone. [Annex 2.10](#) describes, barrier by barrier, and opportunity by opportunity, how the project will achieve this. The following section describes the baseline and provides information on the barriers.

### National Level Baseline

72. At the national level, government policy is increasingly committed to environmental protection and to biodiversity conservation. However, in practice, as explained below, it is very unlikely that there will be any sizeable impact on the rate of biodiversity loss.
73. The Department of Environment is committed to a holistic approach to biodiversity conservation and sustainable utilisation. However, in the baseline, due to its limited capacity, it is unable to influence society and unable to influence the economic sectors, such as forestry, rangelands, agriculture, water and tourism. As a result, in the baseline, it will focus its efforts on managing the core of its protected areas, with some success in the initial years, but leading to a fragmentation and islandisation of biodiversity. Whereas the overall budget of DoE for biodiversity conservation continues to grow, this will continue to be small in relation to the true value of biodiversity, or of the funds needed to conserve biodiversity.
74. The EIA Law, under preparation, focuses on urban and industrial projects, and is not suitable for influencing natural resource projects and programmes in rural areas. In terms of financing, an Environmental Fund is to be established under the NDP, however again the focus for the Fund is on the industrial environment.
75. In the development phase of this project, at least one hundred national programmes and projects that will or that may have an impact on biodiversity in the Conservation Zone were identified. These range from very small, specialised research projects to large-scale highly financed nation-wide projects. These range from projects that have direct negative impacts on biodiversity, to projects that if finely adapted could have a positive impact on biodiversity, whilst still achieving the initial objectives. The key government agencies responsible for the programmes and projects include: RIFR, FRWO, WAD, FRI, CHTO and Ministry of Oil. [Annex 2.9](#) provides basic information on the most pertinent of these programmes and projects.
76. In the baseline, at best, policies surrounding the above-mentioned programmes and projects state the importance of biodiversity. In the baseline, however, lack of coordination and technical capacity will combine to ensure that the projects are implemented in a sectoral manner without true attention being paid to biodiversity. For example, in the forestry sector, the focus will remain on planting and protecting trees. Non-native species may be used. In the rangelands sector, little attention will be paid to carrying capacities; the emphasis will be on increasing production. The existing approach to land tenure on rangelands will be replicated, with the associated deterioration of the rangelands.
77. In the baseline, there are few efforts to mainstream biodiversity into tourism and water sectors – this represents a missed opportunity. For example, the NDP allows water resource managers to transfer a percentage of water user fees to upstream natural resource managers in order to protect the watershed. In the baseline, this is unlikely to become significantly operational, and any impact on biodiversity will be coincidental and limited. Likewise, in the tourism sector, any opportunities to develop eco-tourism will remain simply a good idea; there will be neither the political will nor the technical capacity to operationalise these good intentions.

## Conservation Zone and Provincial Level Baseline

78. Development across the Conservation Zone is at present undertaken in an uncoordinated manner, both across provinces and across sectors. Accordingly, the strongest agencies and provinces implement their work-programmes in the most efficient manner possible, with little regard to the external impacts and missed external opportunities. There is no coherent overall vision for the Zone or for the Zagros mountains. In the baseline, the CCDCZ, if it becomes effective, will support isolated infrastructure projects, which stimulate development locally but do not have a broad impact.
79. Coordination between provinces will remain limited to isolated examples and personal relations.
80. As with the national DoE, the Provincial DoEs remain a weak actor in the baseline, and are unable to engage on equal terms with other government agencies. Hence DoE will not be able to significantly influence the work programmes and practices in the main economic-sectors. DoE will, however, continue to develop and implement Management Plans for its Protected Areas. These will experience some success. However in the baseline, technical capacity at provincial and at protected area level remains weak. Notably, there is very little capacity for financial planning and management, and hence little capacity to generate sizeable additional finances for the conservation of the protected areas.
81. In the agriculture, rangelands and forestry sectors, baseline development consists largely of a package of governmental programmes to manage and conserve natural resources (see [Annex 2.9](#)). The FRWO implements many projects to conserve natural resources. However, the focus is on the trees, and often the undergrowth is neglected and no new trees can grow. Biodiversity is depleted. Moreover, away from the sites that can be easily inspected by FRWO, unsustainable wood collection continues. Efforts at land-use planning are limited to the level of the individual land-owner.
82. The FRWO will continue its programme to give 30-year user rights to rangelands managers, although the success of this programme has been shown to be limited to areas with low population pressure. In fact, with existing practices, livestock numbers are far above the estimated carrying capacity, and are growing. In the baseline, there are no measures to reverse this trend.
83. FRWO will continue to be a huge employer throughout the Conservation Zone, helping to overcome unemployment challenges. However, in the baseline, opportunities to employ this staff in biodiversity friendly activities will be missed.
84. In the Water Sector, the Conservation Zone is the source of water for a large population of downstream users. This should be incentive to conserve the Zone, and its ecosystems. However, in the baseline this is a missed opportunity. The main focus of activities in the water sector is to construct a series of dams and water transfer schemes. However, the Regional Water Organisation is increasingly aware of the need for demand side management and for long-term catchment protection in order to protect the water supply. An agreement has been established whereby water users in downstream Khuzestan province pay FRWO in Chaharmahal & Bakhtiari province to protect their catchments. Although a positive step, this is a small initiative, and there is little understanding of biodiversity integrated into the process.
85. In the baseline Tourism Sector, both domestic and international tourism are a missed opportunity for biodiversity conservation. For example, it is currently estimated that one small protected area (Tang-e-Bostanak or 'Lost Paradise') receives 200,000 visitors/year (mostly day-trippers). These visitors come to enjoy the nature and the scenery, which, in the baseline, they continue to quickly destroy as their activities are largely un-regulated. This number of visitors represents a considerable potential source of finance for natural resource managers, although in the baseline this source remains completely unexploited – no payments are presently made by the visitors towards biodiversity conservation. In the

baseline, the number of visitors to biodiversity spots is set to continue growing, and this activity is likely to remain unregulated.

86. The private sector will continue to grow in importance, albeit slowly, in the baseline. This is particularly true for the medium sized enterprises and the increasing number of denationalised industries. However, the small-scale private sector will only develop very slowly. Overall, the private sector will pay little attention to environment or biodiversity conservation.
87. There is an increasing number of NGOs, many of which are primarily interested in environment or nature conservation<sup>18</sup>. In the baseline, the NGOs have little capacity and limited finance.
88. On the positive side, there is a growing awareness for environmental and biodiversity protection particularly amongst the youth in urban areas. This is a result of national campaigns, and of a growing understanding of the international situation and experience. This will become an increasingly positive force for change in some areas. There is notably increasing recognition of the need to conserve land and water resources in Iran.

#### Local Level Baseline

89. Small village communities will continue to move along the development continuum, with an increasing number of people slowly moving out of the natural resources sector, either moving to local cities for other work, or being employed in local offices or industrial enterprises. The process is slow and disjointed, and in the meantime there is a decreasing respect for the natural resource base and for sustainable management amongst those who continue to exploit natural resources.
90. A large majority of habitants in the proposed Conservation Zone will continue to be involved the agriculture, forestry and rangelands sectors. Traditional practices will continue to be at the core of activities. In the baseline, increased capacity and increased population pressure will lead to these practices becoming decreasingly sustainable. In the baseline, enhanced practices will not be widely developed or disseminated.
91. Small village communities will continue to have conflicts with the managers of protected areas, as they will still do not understand the role of the protected areas, and in many cases have no alternative. There will continue to be a lack of trust of government agencies. Likewise, local communities will continue to have little respect for FRWO sponsored programmes to protect catchments. Local communities will avoid harvesting these areas only out of fear of getting caught. Where there is little fear of getting caught (i.e. in protected areas off the main roads) and when costs of getting caught are less than the benefits of illegally taking wood (i.e. when the family is freezing and there is no alternative fuel), the illegal harvesting will continue.
92. In other cases, short-term profit will continue to be the driving force, in the absence of sustainable management regimes or appropriate incentive structure.
93. The poorer villages will continue to be isolated from the development process, and continue to feel 'dependent' on government for solutions to their problems. Private enterprise will continue to be restricted to small percentages of the population, with few of the benefits flowing to poor people.
94. Some isolated initiatives are underway in the baseline, but are not very effective. For example, nomads are allowed a fixed number of sheep. If they are caught with too many sheep, they can be fined. However, the official fine is considered too high and very rarely enforced. Also, MoAJ is developing

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<sup>18</sup> A database of local NGOs has been prepared, see section "Supporting Documentation", below

forest management plans for each small area (or '*serie*'). In some cases, combined forestry and agricultural plans are developed. These are an excellent opportunity for mainstreaming biodiversity, but in the baseline the intersectoral cooperation and technical capacity are too low for the mainstreaming to happen.

95. On the positive side, the increasing attention to participatory development in Iran, as well as an overall growing knowledge of biodiversity, will combine to provide a small brake on some negative practices. Also, surveys in the Project development phase illustrated strongly that most villagers feel some of their neighbours are harvesting too much – a sign of high awareness. Moreover, the increasing capacity of the Islamic Councils will provide a mechanism for communication with Protected Area staff, and a mechanism for managing natural resources, both of which should facilitate efforts to ensure sustainable use of resources. The Islamic Councils may also be in a position to ensure that some of the benefits of biodiversity conservation flow to local villages.

#### Biodiversity Baseline

96. In the baseline, the total area of land set aside for *strict* (this includes National Parks and core areas of Protected Areas) biodiversity protection is likely to grow. This land will probably be well protected. However, this area is likely to remain a small percentage of the Conservation Zone. All other land, including none-core parts of protected areas, is unlikely to be adequately protected and will decline. In the baseline, the result is a continuing process of 'islandisation'; as the remaining biodiversity is found in small, unsustainable islands. The unique forests will continue to be degraded, and many of the plant and animal species will disappear or decline, including unique and endemic species. Crucially, most of the mountain ecosystem will be degraded and damaged, and will have lost its value and integrity as one of the world's great ecosystems. With a growing number of roads and increased access, hunting pressures will finally eliminate several large mammals from this mountain range.

#### Baseline Summary

97. Overall, in the proposed Conservation Zone, the present development process will continue, incomes will rise slowly, natural resource use will become increasingly un-sustainable and the pressure on biodiversity will increase. The present system of Protected Areas will increasingly resemble islands, and be insufficient to maintain the overall biodiversity value. In general, government support to local communities will continue to be top-down and technology driven, rather than participatory and village-driven. Government activities will continue to be sectoral and fragmented, many modern ideas – including biodiversity conservation – will continue to have supporters and possibly be increasingly mentioned in policy statements, but they will not be operationalised.

#### 2Biv) Description of the Project (Alternative)

98. The Project will contribute to the overall goal of the Government of Iran, which is to ensure that the socio-economy in the Zagros mountains develops and is mutually supportive of biodiversity conservation and restoration.
99. In the alternative, the Government aims to develop the Central Zagros Landscape Conservation Zone as an area integrating biodiversity conservation with sustainable development. GEF will support at three levels, specifically by:
- developing the required national level capacity to support biodiversity conservation in the central Zagros mountains. Broadly speaking, at this level, the GEF support will address policies, financing and partnerships;

- helping remove the barriers to mainstreaming the conservation and sustainable use of biodiversity into the development processes and the economic sectoral processes throughout the Conservation Zone. Broadly speaking, at this level, GEF support will address programmes, projects, practices, macro-level resource use planners and financing. A supportive environment for improved livelihoods will also be created at this level;
  - developing capacity for participatory, village-driven development that assures sustainable use, biodiversity conservation, natural resource exploitation and socio-economic development in a mutually-respective manner at the village level. Building on existing knowledge and skills at 8 pilot sites, GEF support will address harvesting practices and micro-level planners. It will also build local know-how and capacity and generate experiences in the development of improved livelihoods. The project will also facilitate dissemination and replication of success.
100. Details of the activities at each of these levels are described later. First, issues common to each level are described:
101. Developing new visions for development. At all levels, the GEF supported project will exploit opportunities for developing a new vision to development that integrates economic, social, ecological and religious aims. Integrated<sup>19</sup> monitoring that feeds back into decision-making will be part of this vision. Likewise, coordination and integrated planning across socio-economic sectors will be central to the new vision.
102. Strengthening DoE. The project is to strengthen DoE capacity (at national and provincial level) to work with and influence other ministries and the private sector. The project will help DoE fulfil its mandate to facilitate the mainstreaming of biodiversity into sectors.
103. Partnerships. Both development and biodiversity conservation will require strong and sometimes innovative partnerships in Iran. The Project's development phase made significant progress in identifying potential partnerships, and starting to establish them. The Project will continue to strategically build partnerships, and use these as mechanisms for achieving project objectives. Partnerships are to be: across sectors; between national and local actors; across provinces, and; between government and non-government agencies, including the media and the private sector.
104. Economics and awareness raising. Awareness raising will be a key tool in the Project to increase support for and appreciation of biodiversity. Awareness raising activities will be finely adapted to the selected target groups. For example, the Project will estimate the monetary value of biodiversity in the Zagros mountains in terms meaningful to national, provincial and village decision-makers, and disseminate the findings. At local levels, *social communication* techniques will be used to raise awareness. Through this, messages will be jointly developed and delivered in terms immediately meaningful to local people, rather than using internationally or nationally appropriate messages and measures.
105. Business-oriented approach. The project will support a business-oriented approach to biodiversity conservation and livelihood development. Government agencies involved in biodiversity conservation will be helped to use business-like practices, involving coherent activity and financial planning, rewards systems, etc. At the village level, village planners and farmers will be helped and encouraged to become less dependent on government support, and become more self-initiated and responsible.

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<sup>19</sup> ie: covering economic, ecological and social status and trends



106. Operationalising existing capacity. One aspect of this is traditional knowledge. Traditional practices will be the starting point for any technological improvements. Traditional management and conflict resolution will be used, where possible, to create incentives for sustainable use. A second aspect of capacity is policies and management mechanisms. The project development phase identified many innovative policy initiatives that are not yet operational. The Project will support these to reach take-off point. Specifically, for most of the project components, the strategy is to assess and overview the related international experience and use it to support Iranian initiatives. A third aspect is ‘financial capacity’. Iran is not a poor country, but the present system allocates too few resources to biodiversity conservation or sustainable utilisation. The Project will help natural resource managers and conservationists to *capture* existing financial resources in Iran.

Outcome 1: A national institutional and policy framework that is fully supportive of mainstreaming biodiversity into development in the central Zagros mountains.

107. The first step is to strengthen partnerships between conservationists and key government agencies – notably the MoAJ, MoE, CHTO and the CCDCZ<sup>20</sup>. The Project Steering Committee (PSC) members and the Technical Advisory Team (TAT) are the main tools for doing this. The PSC and TAT will be responsible for overall supervision and guidance to all project activities under all Outcomes. The PSC and the TAT members will be responsible for taking the findings from all Project activities and *integrating them into the procedures, policies and workplans* of all concerned national agencies. Where this is not possible, the Project will utilise the NCSD and EHC. Finally, again building on project activities, PSC and TAT will be responsible for contacting international agencies and mobilising resources to biodiversity conservation in the central Zagros mountains. Results may include: line agencies realigning existing projects to include conservation activities; MoU’s between DoE and line agencies developed and operationalized; the Environmental Fund allocating finance to biodiversity conservation in the Zagros, and; international sources of financing secured.

108. The Project will also influence macro-policies and sectoral policies and practices<sup>21</sup> (in tourism, agriculture, forestry and rangelands). Related DoE policies and practices will be assessed and revised. With support from the GEF project and DoE, the respective sectoral agencies will study their policies, the impacts on biodiversity, and the opportunities for change. In the past, each agency already stated biodiversity related objectives. With support from this project, each agency will now prepare necessary implementation framework (consisting of decrees, guidelines, or best practice manuals, as appropriate) for achieving these objectives. The agencies will later report to the NCSD on their changed policies and practices, and the subsequent impact. The development of such an implementation framework will draw upon and be informed by the experience generated within Outcomes 2 and 3 and provincial and local levels respectively. The resulting changes to national policy and practices will facilitate biodiversity conservation and help economic development in the central Zagros mountains. In overall support, GEF and DoE will prepare an estimate of the financial value of the central Zagros mountain ecosystem to Iran.

109. At the national level, the Project will also play a key role in disseminating and replicating the project findings and lessons throughout Iran. From the outset, where appropriate, two of the Provinces neighbouring the Conservation Zone (Luristan and Yazd) will be invited to participate in the Project’s training programmes. The Project’s awareness raising campaigns will be replicated in these provinces. These activities will be supported by the Government’s own budget. Later in the Project, once successful approaches have been demonstrated, the government will disseminate and replicate where appropriate in

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<sup>20</sup> Both MoAJ and MoE have departments responsible for water management. Both will be represented on the PSC.

<sup>21</sup> Policies/programmes to be revised may include: the wheat price subsidy; the Environmental Fund; the new law establishing the CHTO; the EIA law; SEA Guidelines and application; Guidelines on dam-building; land ownership, tenure and markets; and guidelines on use of water fees.

Iran. GEF will fund two large-scale national seminars (one at the middle and one at the end of the project) to systematically disseminate project findings and successes.

Outcome 2: Sustainable use and conservation of biodiversity is integrated into economic and sectoral programmes and government practices across the Central Zagros Landscape Conservation Zone

110. The Project at the Zone level will influence the overall development process and the key sectors interacting with biodiversity. Several working groups, consisting of officials and experts from the four participating provinces, will be established to steer the project activities and ensure the project findings can be quickly integrated into government plans and programmes. With GEF and DoE support, sectoral agencies will determine ways to change their own policy and practices.
111. At an overall development level, a working group will be established that reports directly to the Provincial Planning Councils (PPC) in the four provinces. With GEF support, the PPC will commission this working group to undertake three studies:
- to determine the monetary and other values of Zagros mountain biodiversity in the four provinces. This information will be the centrepiece of awareness campaigns targeting political and economic decision-makers
  - to explore alternative *visions* for the development of the Conservation Zone, partly by exploring international experiences, and including an investigation into the UNESCO ‘Man and Biosphere’ concept;
  - to develop mechanisms to monitor social, economic and environmental development in an integrated, connected manner.
112. The CCDCZ will be approached, and its support for the new vision sought. Building on successes in the development phase of the Project, linkages with influential private sector decision-makers will be built, and their involvement secured. Also, these activities will draw from related activities supported by the UNDP/Area Based Development Programme (ABD) in Kohkiluyeh and Boyerahmad province. The result will be a Strategy for development of the zone, incorporating a new vision and integrating biodiversity conservation with development. The Strategy will be implemented by national and local government agencies, with implementation starting towards the end of the GEF support. This vision will help the project to influence the large baseline of activities in the natural resources sector. The strategy will be supported by monitoring that feeds adaptive management.
113. In order to build broad support and understanding of biodiversity, the government is to establish two Mountain Biodiversity Resource Centres (MBRC), one in Isfahan and one in Fars. The Project will provide technical support to these Centres. Once operational, the Centres will provide information on mountains, encourage the urban public to be interested in and supportive of mountain biodiversity, and play a role in developing sustainable mountain tourism. The aim is to re-establish the linkages between urban dwellers and mountains, to develop awareness of mountains and biodiversity, to introduce the new vision of development to the public, and to develop broad supportive networks. Initially the MBRC will be fully supported by the DoE/Province and the Project, but they should be financially self-sustainable by the project end (GEF funds will assist in developing financing plans). In addition to the MBRC, broader awareness raising campaigns will be run across the Conservation Zone.
114. The project will support ongoing government agencies, including MoAJ, in their efforts to support sustainable development. Project support to improve livelihoods will cover income and none-income generating activities, it will cover the improvement of existing activities and the introduction of new activities. In the Project development phase, an outline strategy for improved livelihood development

was prepared<sup>22</sup>. A key component of the strategy to improve livelihoods is the Biodiversity Enterprise Centre (BEC). This will be established with the dedicated function of generating small-scale, private sector led, improved livelihoods across the Conservation Zone. This work will be coordinated with similar activities under the ABD. The Enterprise Centre may be responsible for:

- Identifying suitable improved livelihoods at the village level;
- Identifying business opportunities;
- Provide advice to local entrepreneurs;
- Developing business development models, possibly through ‘incubators’;
- Identifying possible investors or credit facilities;
- Undertaking feasibility and pre-feasibility studies;
- Developing necessary contractual documents;
- Once the investment is underway: provide advice on business practices and marketing; provide information; and facilitate access to training.

115. By reducing the complexity and risk associated with diversifying into improved livelihoods, the Biodiversity Enterprise Centre should increase the number of farmers and households adopting improved and alternative, biodiversity friendly livelihoods. The activities of the Biodiversity Enterprise Centre are likely to cover the agriculture, rangelands, forestry, tourism and handicrafts sectors. For example, they could focus on the sustainable use of biodiversity products, including both artisanal and industrial processing.

116. In order to further stimulate the development of village level improved livelihoods, the Project will support a Biodiversity Enterprise Grants Programme (BEGP). Grants will be allocated to applicants to demonstrate the sustainable use of biodiversity products in a profitable manner. The grants may be used to collect related information, to provide training, or to provide seed training for investments or technology transfer. In addition to local entrepreneurs, communes, universities, academic institutes and NGOs, with a demonstrated history in biodiversity related projects, will be eligible for co-financing from the BEGP. Up to 10 grants of up to \$10,000 will be issued each year through a transparent mechanism. See [Annex 2.8](#) for more details on BEGP.

117. Using the above tools and in line with the above-mentioned new *vision*, the Project will take specific measures to mainstream biodiversity into the following sectors: agriculture; rangelands; forestry; tourism and; water. First, with support from the Project and DoE, for each sector, the respective sectoral agency will establish an intra-provincial working group to oversee Project activities in the concerned sector. With support from the Project and DoE, the respective sectoral agency will then oversee a brief assessment of international experience and best practices. The concerned working group members will then visit two other countries to observe first hand experience of mainstreaming. Under the guidance of the sector agency, the working group will prepare a strategy for mainstreaming biodiversity into the sector, and then launch the strategy. The strategies will include a complete monitoring framework.

118. The details of each strategy will be sector specific, although there will be many issues common across all sectors. For example, for each sector, the steps in the strategy may include:

- The signing of an MoU between the sector agency and DoE;

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<sup>22</sup> See the PDF report “*Strategy for Alternative Livelihood Development*”, by Stephen Fuller, 2004 (A summary is provided in Annex 2.11). This Strategy considered 12 possibilities, and selected five priorities (agriculture, rangelands and forestry related, conservation planning and management related, and tourism related – including handicrafts). The Strategy covers income and none-income generating activities, it covers improvement of existing activities and the introduction of new activities. Hence the project is to focus on ‘Improving Livelihoods’ rather than ‘Alternative Livelihoods’. The Strategy is not to be implemented as a stand-alone programme, but it will be fully integrated across all the Project activities. It will be the basis for all alternative livelihood activities in the project.

- developing guidelines and a best practices manual for the sector;
- training and capacity building needs for sectoral experts and officers on the value of biodiversity and how to integrate it into their work;
- using BEC and BEGP to stimulate investments in biodiversity-friendly income generation;
- Training on participatory methods and conflict resolution;
- Learning of the lessons from the pilot villages (see Outcome 3).

119. Sector-specific activities will be undertaken in each of the key sectors. (See [Annex 2.13](#) for more detailed information on the baseline, alternative and indicators for each sector). Sector specific activities are likely to include the following:

- In the forestry sector, provincial agencies will have reviewed and revised the local implementation of all key programmes (see [Annex 2.9](#)). Provincial forestry departments will report to the Provincial Government and DoE on their performance regarding biodiversity. Reforestation and forest protection activities will be closely coordinated with biodiversity conservation objectives – in order to reduce the pressure on natural forests. New and improved technologies and harvesting practices will be introduced. Fossil fuel distribution programmes will be oriented to target biodiversity rich areas. The BEC will support investment in biodiversity friendly income generation;
- In the rangelands sector, the provincial agencies will have reviewed and revised the implementation of key national programmes, including those related to land-tenure and land-leasing. Studies will be carried out to determine carrying capacities. Provincial rangelands departments will report to Provincial Government and DoE on their performance regarding biodiversity conservation. New practices for sustainable harvesting will be introduced. BEC/BEGP will be supporting biodiversity friendly income generation;
- In the agriculture sector, the Government and BEC will provide support for biodiversity friendly agriculture across the Zone, introducing new and improved technologies and practices. Rural development funds will be targeted towards biodiversity friendly, market-oriented income generating activities;
- In the *water* sector, specific proposals to transfer fees collected from water users to ecosystem protection will have been developed and operationalized in 1-2 pilot cases. Water resources harvesting will be better regulated and monitored. Measures will be developed for more effective environmental impact assessment of major plans in water sector through EIA and new SEA guidelines;
- In the *tourism* sector, the existing tourism development plan in each Province will have been modified to include a focus on key biodiversity areas, in order to increase eco-tourism and adventure tourism, and to provide a biodiversity friendly source of income. Market-oriented support mechanisms will be increasingly operational. The MBRC will help generate demand for eco-tourism. The BEC will help develop local private sector capacity to provide eco-tourism services.

120. Iran is currently developing Strategic Environmental Assessment (SEA) as a tool for environmental management with support from UNDP. Within this Outcome, the SEA project will provide important inputs through the development of an overall methodology for SEA as well as the pilot testing of SEA at various levels, including at the country-wide inter-sectoral level, on a government sector plan, and in a geographically focused plan with cumulative environmental consequences. In addition, UNDP through its ABD programme will specifically support an extension of the SEA programme to Kohkiluyeh province in the CZLCZ. This linkage and piloting of SEA is considered important as development activities in this largely natural resource based provincial economy are only just starting to develop and any non-sustainable growth consequences could be avoided by incorporating SEA related preventive approaches in the planning process. The local MPO office in the province has indicated its interest and support for applying a SEA pilot at the provincial level.

121. In parallel to the steps to mainstream biodiversity into the socio-economic and sectoral development, the capacity of conservationists across the Conservation Zone to effectively conserve biodiversity will be strengthened. Zone-wide biodiversity surveys will be run. The existing land management framework – including the network of DoE managed Protected Areas, will be assessed. A revision of protected areas will be proposed in line with the survey findings. Rules and guidelines regarding biodiversity use will be developed for all non-urban land in the Conservation Zone, and concerned government agencies convinced to adopt these guidelines. At the end of the Project, conservation efforts will have a new network including highly protected areas, corridors, stepping stones, and vast areas where multiple uses can be undertaken in sustainable ways. This former category is likely to cover more than half of the Conservation Zone, to be managed by the government’s sectoral agencies with technical guidance from DoE.
122. The management of individual protected areas will be strengthened, initially by capacity building focussing on management and financial planning, community interactions, participatory approaches and resource mobilisation. Using participatory methodology, business oriented management plans will be prepared for each protected area, each of which will include a clear demonstration of how local communities participate in and can benefit from the protected area.
123. A lynchpin of the Conservation Zone level biodiversity conservation will be innovative financing for conservation activities. In the Project development phase of this project, a strategy for the sustainable financing of conservation was developed<sup>23</sup>. From this strategy, innovative financing mechanisms will be developed, notably through payments for the water supply protection that biodiversity rich watersheds provide and the generation of revenue from eco-tourism.
124. During the project lifetime, both the BEC and BEGP will focus on the 8 pilot villages in Outcome 3. Other activities in Outcome 2 will provide technical support and coordination to the pilot villages level. This will include monitoring; it will include providing technical support; and it will include ensuring that all lessons and experience from the pilot villages are fed into provincial and national level activities.

Outcome 3: Successful, sustainable, financially replicable models of village levels approaches to increasing income generation and conserving biodiversity in biodiversity rich areas.

125. The main thrust of the GEF support is to demonstrate how biodiversity can be mainstreamed at the village level, using participatory mechanisms, in a financially sustainable manner, and building on existing practices and traditional management mechanisms. Through the participatory planning process, and the subsequent institutional arrangements, communities will be given greater responsibility and capacity to make resource use decisions.
126. Three typical villages were selected in the Project’s development Phase: Madan, Darreh Yas and See Sakht. Each of these villages is represented by an elected Islamic Village Council. In each village, the Islamic Village Council will work with the DoE staff to design and oversee a participatory planning process to develop sustainable development and natural resource use plans. These Plans, once finalised, will be a contract between government, villagers and conservationists, and will cover:
- Sustainable harvesting levels in all land used by villagers, both inside and outside the protected areas. This will likely lead to a more intensive use of lands near villages;

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<sup>23</sup> See the PDF report “*Sustainable Finance Strategy for Conservation of Biodiversity in Central Zagros Mountain Ecosystems, Iran*”, Dirk Kloss, 2004 (A summary is provided in Annex 2.11). This strategy considered 11 financing mechanisms and selected those most suitable to the Zagros region. It outlined initial steps to introduce the mechanisms. This Strategy will not be implemented through a stand-alone programme, but it will be fully integrated across all the Project activities.

- A strategy for generating improved livelihoods for local people. This could for example include involvement in government-sponsored reforestation schemes. For villages near to protected areas, this will include employment in protected area related activities – surveys, planning, monitoring, tourism, etc. This is to generate community support for the protected area objectives;
- Communal standards and guidelines for the use of forests and rangelands, and their products;
- A monitoring framework – addressing Details of the support that the Project and the Government will provide villagers, including:
  - Development of best practice manuals and guidelines (developed together with villagers);
  - Support for new and improved techniques and practices in the agriculture, rangelands and forestry sectors;
  - Support for new and improved livelihoods in other sectors, such as tourism and handicrafts;
  - Social communication and targeted awareness raising campaigns;
  - Training and support, eg. as guides for tourists or on agroforestry techniques;
  - Business development support services.

127. Each village level natural resource use plan will include a complete monitoring framework, to feed directly into management and implementation of the Plan, in line with local capacity and local traditions. In each pilot village, this monitoring will cover economic, social and environmental aspects. It will monitor attitudes to biodiversity, and the level of biodiversity friendly activities. It will show just how, and if, practices and attitudes are changing. This monitoring will feed into local planning and decision-making, i.e. into adaptive management at the community level. Hence, if annual targets are not met, the approach will be re-assessed and revised.

128. Once the process is underway in the three original pilot villages, additional (at most five) pilot villages will be selected, and a similar set of activities launched. At least one village from each participating province will be included. Villages will be selected to represent a range of physical conditions and threats to natural resources. This will ensure that a broad range of lessons is learnt from a diversity of social, economic and environmental contexts. Local leaders and DoE staff will oversee the participatory process to develop and implement sustainable development and natural resource use plans.

129. The lessons from the eight pilot villages will demonstrate that biodiversity and development objectives can be met at the village level, with appropriate government support. The project will demonstrate how giving increased responsibility to communities through the participatory planning and decision-making process can lead to improved social and ecological conditions. Eight villages should be enough to have an impact on biodiversity and to deliver enough lessons for replication to other villages across the Conservation Zone. In general, the government will oversee the replication, since it has the funds and the model is in line with the government’s objectives with its new vision (see Outcome 2). However, the Project will support replication to a limited extent, notably by:

1. Supporting the government’s establishment of two ‘Participation Houses’<sup>24</sup> inside Protected areas in the Conservation Zone. The GEF project will support the design and initial equipping of these. Government funds and revenue will support their operational costs. The Houses will be open to the public and will provide education, awareness raising and other facilities for visitors.
2. Supporting the Government’s establishment of two travelling biodiversity ‘Participation Houses’. These will permanently travel across the Conservation Zone, as a key awareness raising tool;
3. The Biodiversity Enterprise Centre (Outcome 2) will provide the support listed in paragraph 114 above.

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<sup>24</sup> The Participation Houses are very similar to the concept of visitor or education centres, and build on existing mechanisms present and operating in Iran

130. Social communication to raise awareness will be a fundamental component of project activities at the local level. Through the activities and partnerships developed in the 8 pilot villages, locally suitable awareness raising material will be developed (jointly with the villagers). The Participation Houses and other government communication mechanisms will be used to disseminate this material.
131. The Logical Framework in [Annex 2.1](#) illustrates how the activities, outputs, outcomes and objectives link together, and provides the basic monitoring framework for the Project. Section 3 below provides information on the financial package to support the Project activities. More information on the participatory mechanisms is provided in Section 2E.

## 2Bv) Benefits of the Project

### Global environment benefits

132. The Central Zagros Mountains is a globally unique mountain ecosystem containing high species biodiversity and significant biodiversity important for agriculture. As explained in previous sections, the integrity of the biodiversity is being threatened, and gradually the biodiversity is declining. This Project will ensure that, across a large landscape, the biodiversity value is conserved. The overall mountain ecosystem will remain intact, the range of habitat for large species will be extended to at least the entire Conservation Zone and hence the health and population of these individual species will stabilise or grow. Through this Project, the habitat for small mammals, invertebrates and flora will be sustainably utilised, as will the species themselves, ensuring that the populations remain stable or grow. The value attached to biodiversity, by local villagers and government, in monetary and non-monetary terms, will increase.
133. The diversity in climates over short geographical distances – due to extreme topographic diversity and several climatic influences, has led to greater resilience of biodiversity in the Zagros. There is a high degree of connectivity across the different climatic zones given their geographical proximity. In addition, the project’s mainstreaming approach across a number of key sectors and forms of land-use is intended to further increase connectivity by promoting greater flexibility in management of biodiversity across the landscape. Hence, should the region experience climate change, the chances of species and eco-systems being able to adapt is relatively high – they can migrate along the connected network to new climatic or altitudinal zones. Hence conservation of this Zone should provide some important lessons and understanding of how biodiversity can adapt to climate change.

### Other benefits

134. The Project will also have many sectoral benefits related to Iran’s capacity to manage its natural resources, to protect its environment, and develop its socio-economy. The mechanisms, procedures and techniques introduced through the Project will directly develop capacity to manage natural resources, at provincial and village level. This should notably have a positive impact on the management of land and water resources. Likewise, the Project should generally develop the capacity of provincial government agencies (notably DoE and MoAJ) to plan activities, to coordinate, to interact with local and national stakeholders, and hence to more effectively implement their mandate. This should lead to improved environmental management and government support to rural development across the four provinces.
135. Finally, a benefit of the project should be the establishment of a new approach to development. The Project aims to improve biodiversity conservation by mainstreaming into, and influencing, the overall development process across the Conservation Zone. Specifically, the Project aims to help develop a new development *vision*, with economic, social and ecological aspects. By doing this, the Project will then help provincial governments to achieve this vision. Likewise, at the village level, in 8 villages the Project will demonstrate how to realise this vision.

## 2Bvi) Incremental Cost Consideration

See [Annex 2.2](#) for more detailed information.

### Project Outputs that lead mostly to Global benefits:

<b>Output</b>	<b>Description</b>	<b>Incremental Cost (US\$)</b>	<b>GEF (US\$) Contribution</b>
1.1	Biodiversity partnerships with national and international agencies	645,000	220,000
1.2	Improved and modified policy/practices and institutional arrangements	708,000	250,000
1.3	Dissemination and replication of project successes	680,000	180,000
2.6	Improved biodiversity conservation management across the Zone	1,550,000	440,000
Monitoring and Evaluation		160,000	160,000

### Project Outputs that lead to Global and National benefits:

<b>Output</b>	<b>Description</b>	<b>Incremental Cost (US\$)</b>	<b>GEF (US\$) Contribution</b>
2.1	New development paradigm and strategy	965,000	350,000
2.2	Mechanisms to support biodiversity friendly livelihood development	1,055,000	680,000
2.3	Biodiversity mainstreamed into water sector development and processes	502,000	260,000
2.4	Biodiversity mainstreamed into agriculture, rangelands and forestry sector development and processes	595,000	280,000
2.5	Biodiversity mainstreamed into tourism sector development and processes	515,000	190,000
3.1	Eight demonstration villages identified	265,000	110,000
3.2	Natural resource management planning process developed	520,000	120,000
3.3	Natural resource management plans developed in a participatory manner with biodiversity conservation as a main objective	560,000	280,000
3.4	Plans implemented.	670,000	200,000
3.5	Communication/awareness raising	185,000	80,000

The total incremental cost is \$9,575,000 (excluding the PDF B), with a GEF contribution of \$3,800,000 (39% of the total). Total Co-Financing for the Full project (excluding PDF B) is \$5,775,000 of which \$5,395,000 is Secured while further to initial consultations the project will secure a further \$380,000 from NGOs active in the Zone. Most of this NGO funding will be contributed as co-funding towards activities under the BEGP.

## 2Bvii) Project Management and Coordination Arrangements

### National Level Execution Arrangements:



136. The Project will be executed in line with standard UNDP procedures for National Execution. The Iranian Department of Environment will serve as the Executing Agency. The DoE will lead the Project at both the national and provincial level. DoE will assign and finance a high level official person as the National Project Director (NPD) who, on behalf of the government, will take overall responsibility for the Project success.
137. DoE will establish two offices to manage and coordinate the Project activities, one in Tehran and one inside the Conservation Zone.
138. The office in Tehran will act as the Project Secretariat (PS) and will take overall responsibility for Outcome 1. The PS will be in charge of coordination and communication at the national level. The PS will liaise amongst national level governmental, non-governmental and international related entities. The PS will be responsible for supporting the PSC and TAT (see below). The PS will also be responsible for overall project monitoring and evaluation. The PS will be staffed by at least one full-time expert and one secretary.
139. Many Activities and Outputs require the active involvement of sectoral agencies at the national level (notably Output 1.2). To ensure full buy-in by these agencies, they will take on most of the responsibilities for the implementation of the related Activities. The sectoral agency will be responsible for preparing the ToR for all such activities, for identifying consultants and contractors, and for supervising and monitoring the activities. The procedural details of this will be determined prior to the project start-up, and further fine-tuned during the project inception period.
140. As in the Project development phase, the Project will benefit from the policy guidance and technical support of two national level forums. First, the Project Steering Committee (PSC) will continue to be the highest-level decision making body of the Project. It will consist of representatives of key national agencies and of each province. At least one non-governmental representative will sit on the PSC. The PSC will be chaired by the NPD and will take decisions on a consensual basis. Meetings are to be held at least twice a year. The PSC ensures the participation of the main sectoral ministries in this cross-sectoral Project.
141. The Technical Advisory Team (TAT) provides technical advice to the project. The TAT also helps communicate Project intentions and findings, and helps coordinate activities with other projects. The TAT is made up of experts from national agencies, independent experts and NGOs. Although the TAT does not make decisions, it is an influential advisory body. In addition, the TAT members will elect one member to stand in the PSC.
142. UNDP will provide overall oversight and monitoring for Project implementation, including the financial oversight of UNDP and GEF funds. UNDP will also ensure coordination with other development activities and projects supported by or involving UNDP or its partners.

#### Conservation Zone Implementation Arrangements:

143. An office will be established in the Conservation Zone: the Zagros Project Office (ZPO). The ZPO will be managed by the National Project Manager (NPM) who reports directly to the NPD in Tehran. The ZPO is in charge of overall Project management. In addition to the NPM, it will be staffed by four technical experts - one from each of the participating provinces, to coordinate and support all the Project activities at the Conservation Zone and community levels – i.e. Outcomes 2 and 3. Although reporting to the national DoE office in Tehran, the ZPO will coordinate its activities closely with the four provincial governments. It will be responsible for communication with governmental and non-governmental agencies, and for communication with the national level agencies.

144. The Key Provincial agencies involved in the project are the Provincial Planning Councils and the local affiliates of DoE, FRWO, MoE, etc. The project will support the work of Conservation Zone level inter-departmental working groups, involving representatives of each concerned department in each province. One working group will address each of the following components: developing the Conservation Zone development vision; biodiversity and agriculture (including rangelands and forestry); biodiversity and water resources, and; biodiversity and tourism.
145. Each working group will be chaired by the respective sector agency (with the Chair rotating across the four provinces). To ensure full buy-in by the working group members, the working group will be responsible for the implementation of all related activities. Under the direct supervision of the Chair, the working group will prepare the ToR for respective activities, will help select consultants and contractors, and will monitor the activities. Activities will include studies; assessing related international experience; overseeing development of Conservation Zone level policies and guidelines and management practices, and; disseminating project successes. The procedural details of this will be determined prior to the project start-up.
146. In the Project development phase, DoE and provincial governments established Provincial Coordination Offices (PCOs) in each of the four participating provinces. The PCOs will continue to ensure the full involvement of each province and to coordinate activities in the province. The PCOs are entirely funded by DoE. The ZPO will facilitate contacts and communication across the four PCOs, and help to build a powerful network for project implementation.

#### Biodiversity Enterprise Centre and Biodiversity Enterprise Grants Programme

147. The Biodiversity Enterprise Centre will be located within existing government facilities for supporting rural development in the MoAJ. GEF will provide technical expertise to ensure that pro-biodiversity improved livelihoods can be stimulated in the Conservation Zone.
148. With support from the ZPO, the BEC will be responsible for disseminating information on the Biodiversity Enterprise Grants Programme, and for the collection and the initial screening of proposals from local NGO, municipalities, academic institutes, etc for grants. All proposals that satisfy the basic eligibility criteria will be reviewed by a board within BEC. See [Annex 2.8](#) for additional information on the scope and management of the BGP.

## **2C Sustainability and Risks**

149. This Project does not set out to replace government budgets or existing institutions with GEF-supported funds or GEF-supported agencies. *If the Project is successful in achieving its objectives*, this project will *change* the way existing institutions and budgets are used and the technical and managerial capacity at their disposal. Once these changes have been made, there is no specific danger of reverting to the baseline. As such, after the Project, there is less danger of budget shortcomings or hollow institutions undermining the sustainability. This approach is reinforced by the fact that all participating agencies have significant, operational budgets. The project will thus focus on building human resource and institutional and inter-institutional coordination for improved management of sector resources available for biodiversity. While the Project will support the design and creation of the Participation Houses, the Mountain Biodiversity Resource Centres and the Biodiversity Enterprise Centre, it will not support the operational costs of any of these. The Participation Houses are to be government financed and based upon existing institutional models in Iran, which will be modified to integrate biodiversity conservation in their mandate. The DoE have already committed to financially supporting these Participation houses. The Mountain Biodiversity Resource Centres and the Biodiversity Enterprise Centre are to be partly financed by government, and partly self-financing. The Project will develop business and financial plans to address this. Finances for these institutions exist in the local economy and in the national budget, the Project will help design ways to access and channel this finance.

### Financial Sustainability

150. Iran is a middle income country. All government agencies involved in the project, at both national and provincial levels, have working budgets. This is evidenced in the recent increases in DoE funding for biodiversity conservation. Iran is not dependent on international funding for environmental protection or biodiversity conservation. Likewise, the GDP and budgets available to the productive sectors, both private and state-owned, are significant. However, in past years, not all funding has been used most effectively. As requested by Iranian government agencies, the GEF funding will assist in removing barriers to the effective use of funds and to the mainstreaming of biodiversity into economic and development sectors. Specifically, MPO officials have mentioned the need for a new vision or mindset in the project region – GEF can help develop the mindset, and national resources can then fund its operationalisation.

151. It is also recognised that insufficient funding was allocated to biodiversity conservation and environmental protection in the past. The GEF funding will help those responsible for biodiversity to ‘capture’ existing funds and ensure more are allocated to biodiversity in the future. The activities devoted to conservation financing in Outcome 2 target this.

### Sustainability of Ideas

152. At the outset of the project development phase, it was the assumption of the project design team that the role of the project was to introduce innovative ideas to Iran. However, a major finding of the development phase was that many of these ‘innovative’ ideas already exist in Iran<sup>25</sup>. Despite being promoted by national officials or experts, and often being enshrined in legislation or policy, in most cases these ideas are not being operationalised. Hence, part of the strategy of the project, is to work with these existing ideas and bring them to fruition, rather to introduce new ideas. This approach is designed to increase the sustainability of the ideas the projects supports. In addition, where necessary, the GEF support will bring in new ideas in order to overcome barriers.

### Institutional Sustainability

153. The project supports agencies that existed before the project began. These agencies have working budgets and mandates. They will continue to function after the project, in some cases with improved budgets and mandates.

154. However, as part of the Alternative, the government is to establish or facilitate the establishment of some new, innovative agencies. These are necessary to mainstream biodiversity and to ensure its conservation and sustainable use. The GEF Project will support these new agencies, notably to ensure they become financially self-sustainable by project end. The new semi-governmental agencies include:

- Two Mountain Biodiversity Resource Centres. These are to be established by the national DoE. Through the Project, it is expected that they will become partly financially self-sufficient. They are expected to respond to a demand by local people for education, entertainment, information on tourism, etc. The project will help develop medium-term business plans for each of the MBRCs. It is expected that they will require some government support into the future.
- The Biodiversity Enterprise Centre is to be established within the existing framework for supporting rural development. It will help stimulate small-scale private sector development across the Conservation Zone. The Project will support the Centre’s initial activities in the 8 pilot villages. This will demonstrate the Enterprise Centre’s ability to help villages, and this piloting will also build the capacity in the Enterprise Centre. However, the Enterprise Centre should then be able to support other villages across the Zone, and this will not be supported by the Project. The Project will develop

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<sup>25</sup> Important examples include: the need to complement protected areas with sustainable use and develop a landscape approach to biodiversity management; the use of ecosystem services payments to contribute to biodiversity conservation; the need for alternative livelihoods in the Conservation Zone.

a medium-term business plan for the Centre, and it is expected that the Centre will become financially self-sufficient by the end of the Project.

### Risks

155. The biodiversity in the Central Zagros Mountains crosses provincial borders, as do the threats to the biodiversity. Hence, in order to conserve this biodiversity, it is necessary to work at a geographical scale greater than any existing province. However, the total scale of the Central Zagros Mountains is far too large for a GEF intervention to have an impact. Hence the Government has chosen to act at the Conservation Zone scale. The Zone takes in part of four provinces, is large enough to provide a viable ecosystem for all biodiversity, but small enough for a GEF supported intervention to have an impact.
156. It is recognised that the Conservation Zone does not respect existing administrative boundaries in Iran and this represents a risk to sustainability. It is not the objective of the Government to create a new administrative region. It is the objective of the Government, with GEF support, to demonstrate that biodiversity can be conserved over a sizeable region, in a cost-effective and financially sustainable manner.
157. In addition, in the project development phase, the idea of establishing a formal natural resources management regime for the Conservation Zone was discussed. Specifically, the idea of establishing a Man and Biosphere (MAB) reserve was raised by senior DoE officials and national experts. This idea will be explored and assessed during the Full Project.

## **2D Replicability**

158. The project is designed to introduce innovative approaches and ensure they are replicated. The full involvement of the four provinces should ensure that the findings and lessons from the Zone and 8 pilot villages are replicated across all rural parts of the four provinces, including many biodiversity rich areas – not all mountainous. The MBRC will help this process, as will the travelling Participation Houses.
159. Each agency in Iran has existing, effective mechanisms for disseminating new policies and lessons learnt. The Project will feed the Project findings into these existing replication mechanisms. DoE in Tehran is to take a leading role in this. Initially, this will focus on the MPO and DoE offices from Luristan, Yazd and Kermanshah provinces. Experts from these provinces will be invited to Project training and key Project events, they will fully benefit from the project experience, and MPO/DoE will assist them to replicate the successful approaches in their provinces. DoE will then cooperate with government agencies to ensure replication across all concerned sectors. DoE and MPO will then be responsible for extending the general approach to all 13 provinces of the Zagros mountains.
160. DoE also intends to distribute findings and lessons learnt outside of Iran. The Natural Environment Department of DoE has established an office for implementing the CBD, and within that it has established the Clearing House Mechanism (CHM). The CHM will be used to disseminate project findings across Iran.
161. Finally, GOIRI recognises that this project is part of a global effort to conserve biodiversity and will ensure that any findings from this project are suitably disseminated within the country as well as to other countries through the use of international fora. Through participation in the CBD and associated meetings, and through the CHM, DoE will ensure that the project experience is widely communicated. During the project development phase, the project has started to develop an international electronic network, the Technical Advisory Network (TAN) (see Section 2E on stakeholder involvement), which will continue to be used as a communication tool.

## **2E Stakeholder Involvement**

### Project development

162. Stakeholders have been fully involved in the project development phase. Every component of the project design is based on the participation of a broad range of stakeholders. These include national and provincial government officials (almost all organizations and ministries), local villagers, nomadic communities, national and provincial experts, national and local NGOs and national agencies. Stakeholder involvement has been assured through: interactive missions of project experts; participatory surveys by project teams; a series of formal and informal consultations at all levels; and informal and formal networks supporting the project. Finally, interested international stakeholders have been continuously informed about the project.
163. During the project development phase, project experts and officials have undertaken tens of missions to the project sites and provincial capitals, in order to hold informal discussions and structured debates on the local situation and project strategy. These were a basis for information collection and strategy development.
164. During the project development phase, three inter-sectoral, multi-stakeholder workshops were held involving representatives from the project area. At these workshops, almost all potential stakeholders expressed their concerns and suggested actions required to improve biodiversity conservation. Stakeholders were also able to comment on and so improve the proposed project strategies. Over one hundred local stakeholders from all concerned parts of society contributed to these workshops. Finally, towards the end of the project development phase, a 2-day planning and consultation workshop with representatives of provincial organizations (MPO, FRWO, DoE) was held to review the project design and collect comments on the planned project activities and strategies. Partnership building and establishing a network has been a secondary objective of all the stakeholder outreach activities.
165. The Project Steering Committee (PSC) is the formal mechanism for involving governmental stakeholders, both national and provincial. The PSC met several times during the development phase. The PSC is complemented by the formal Technical Advisory Team (TAT), which includes academic and NGO representatives, which contributed greatly to project development and design discussions. In addition, in order to assure information sharing and networking, an innovative Technical Advisory Network (TAN) was formed. This electronic network ([http://groups.yahoo.com/group/Zagros\\_TAN/](http://groups.yahoo.com/group/Zagros_TAN/)) presently has over 1000 members.
166. Finally, in order to benefit from the suggestions of the international community and develop a global network for exchanging experience, members of the project team attended the Seventh Conference of Parties to the Convention on Biological Diversity (COP-7) in KL, Malaysia (February 2004) and presented the project at a side event. Posters and articles were distributed at the COP, as well as at the Vth IUCN World Parks Congress held in September 2003 in Durban.

### Project implementation

167. As described above, the project development phase was highly participatory. Moreover, several activities and inputs in the development phase aimed at ensuring that the Project be implemented in a participatory manner. Participatory techniques were introduced and discussed in the Zagros context, and a participatory approach to the full project was developed<sup>26</sup>. On the job training was provided to many

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<sup>26</sup> See PDF Report: “*Participatory Approaches to Biodiversity Conservation Planning in the Central Zagros Ecosystem, Iran*”; Fuller, 2003.

members of the project national and provincial teams. In general, the main elements of the Project's approach are (the projects approach to participation is further elaborated in [Annex 2.4](#)):

- All Project activities to be developed and implemented in a participatory manner;
- Capacity building on participatory approaches to be provided to provincial officials;
- Transparent decision-making processes to be used at the village level;
- Focussed efforts to find common objectives and reach consensus among stakeholders at all levels;
- The regular use of stakeholder analysis, at all levels, to ensure the appropriate level of involvement of all stakeholders;
- The recognition that some stakeholders are 'unwilling' – notably private sector and some government line agencies. Hence, their involvement is part of the Project objective, *not* a basis for implementing the project;
- The use of inter-sectoral project steering committees and working groups at national and provincial levels, with appropriate involvement of government, experts and NGOs;
- A participatory monitoring programme, which will involve stakeholders in the collection and review of data and full dissemination of the monitoring results.

168. The most important level to use and develop participatory management methodologies is at the village level. In each of the pilot villages, a representative and participatory planning mechanism will be established founded on the existing Islamic Council and local DoE staff. Using the best available in-country capacity for participatory planning, plans to manage natural resource use will be developed for each village. This will ensure communities are driving the local development processes. These plans will cover biodiversity conservation and livelihood development. The plans will also include a self-monitoring mechanism. The project will provide overall support to the development and implementation of these plans. These plans are the key tool for mainstreaming biodiversity into economic development at the village level.

169. Conflict Resolution. It is inevitable that there will be differences of opinion among participants in a planning process, particularly if management regimes for natural resources are going to be changed and/or the access to and benefits from natural resource use are likely to be amended or changed during the planning activities. The extent to which these differences of opinion escalate into conflicts depends in part on the magnitude of the change, the resources at stake and the way in which disputes are handled. For these reasons, the Project places a great significance on the design of the planning process and the public and community involvement techniques that are to be used. A particular emphasis is to be placed on identifying and ensuring a role for all the stakeholders that may be affected by a natural resource management decision, and associated training. It is recognised that conflict resolution processes must be scaled to level of the potential conflict, and mechanisms may be needed at village, province and national level. Hence the Project has coordination mechanisms at these three levels. In addition, training courses on conflict resolution may be supported for local government staff.

170. Private Sector In general, across the Zone, the private sector consists of a large number of small and micro (often family based), informal units that are loosely organised. In the Zone, there are no large-scale private operators in the tourism, agriculture, forestry or rangelands sectors, as of yet. Hence, in general, activities to involve local people through the BEC etc. will stimulate and support local enterprise and private sector participation. During the preparation of the project contacts with several small-scale private sector companies were established and the potential for their greater involvement in the implementation is good. The water sector does involve some large semi-governmental business organisations at the national level. However, these are responsible for construction, and not for water management, and therefore are not a key focus of the efforts to mainstream biodiversity into the water sector. The most likely sector to involve medium or large-scale private sector operations in the near future is the tourism sector. This will be explored under Output 2.5.

## Others

171. Awareness Raising is a key element of the project, and includes advocating to national level decision-makers, networking with technical experts, influencing and advocating to national and provincial policy makers, and influencing the behaviour of villagers and the small-scale private sector. Adapted and targeted awareness raising measures will address all these audiences. A national expert will be recruited to develop the awareness raising strategy and programme, to oversee its implementation, and to monitor its impact. At the village level, the emphasis will be on ‘social communication’ rather than ‘awareness raising’ (which, in the local contexts suggests a top-down, answer-providing approach). In the social communications approach, through the interactions between the project, the local people and conservationists, measures and materials will be developed to influence local behaviour and attitudes to biodiversity and to promote biodiversity friendly choices.
172. Gender: Biodiversity conservation and sustainable development depends upon the full participation of women in planning and taking resource-use decisions. The project is to assure the full involvement of women, notably in the 8 pilot villages. This is to be achieved by the employment of a gender specialist to in the project to advise and help design all activities ensuring accessibility and involvement of women. The project will also involve experienced Iranian government departments such as the Department of Nomadic and Pastoral Women’s Affairs within the MoAJ and women’s NGOs.

## **2F Monitoring and Evaluation**

### Lessons Learnt

173. The project is one of the first few internationally supported biodiversity conservation projects to be implemented in Iran. Hence, the project design does not benefit from experience of other GEF, bilateral or NGO-funded biodiversity conservation projects in Iran. However, the project design has benefited from:
- GOIRI projects to manage natural resources and conserve biodiversity;
  - Over 35 years of UNDP experience in Iran.
  - International, notably UNDP/GEF, experience in similar cultural and physical landscapes – notably Pakistan.
174. GOIRI has been supporting rural development and environmental protection activities since the early 1980’s, and specifically biodiversity since the late 1990’s. The lessons learnt include:
- The need for a participatory approach. Previous programmes have been too supply-oriented, creating dependency and undermining ownership. Recent programmes have been increasingly designed to give more power and responsibilities to lower levels of government and to villagers.
  - The need to respect culture and traditional management systems. The approach to development in the 1960’s totally undervalued traditional systems and had catastrophic social and environmental consequences. Recently, increasing efforts have been made to respect these systems, although it is recognised that the dislocations in the 1960s have in many cases eradicated the traditionally systems. In other cases, due to population growth and the arrival of new technologies, traditional systems may no longer be adequate. Hence, where possible, traditional systems should be used as the foundation for action, but it is recognised that in some cases these systems are no longer an adequate base.
  - The need to complement protection of biodiversity preservation with sustainable use. Iran’s biodiversity conservation grew out of the need to protect large estates of game for hunting purposes. For many years, Iran’s biodiversity planners aimed to totally preserve biodiversity, and exclude all users, including the local people. In recent years, biodiversity planners have recognised the need for a more flexible and people-oriented approach.

- The need to complement the Protected Area system. The PA system has worked well until now in Iran. However, it is under threat, and a source of friction with local stakeholders at many points. Hence there is a need to complement the protected area approach to biodiversity conservation with sustainable utilisation, people involvement and protecting biodiversity outside of protected areas.
175. UNDP in Iran. A key lesson learnt by UNDP in Iran is the need to combine action at three levels if change is to be achieved: at the village, province and national level. Hence, recently, UNDP activities in Iran have adopted an ‘area-based’ approach. In this approach, on-the-ground pilot projects demonstrate participatory planning, and improved conditions with regard to poverty alleviation interventions at the local level; and undertake capacity building and advocacy at the provincial level with the aim to promote coordination between related sectors, replication and sustainability, and; at the national level monitoring ensures the activities have the full backing of the national government, and that any required policy or legislative changes can be made.
176. The UNDP/GEF Iran Small Grants Programme has been operating since 1999, and has included successful biodiversity conservation projects, involving local communities. Close links have been established between the proposed project and the overall management of the SGP and individual SGP projects. The lessons learnt regarding participatory approaches and improving communications are integrated into the design of this project and linkages will be promoted during implementation. GEF/SGP has been instrumental through its ongoing local level projects in building community capacity for biodiversity management planning at the local level, developing awareness raising materials, promoting ecotourism in the region, strengthening capacity of local NGOs, and implementing participatory approaches including PRA/RRA to support community empowerment.
177. UNDP/GEF experience. UNDP/GEF has a large portfolio of experience that has been brought to the design of this project. Most of this experience has been captured in the GEF portfolio reviews and incorporated into GEF design guidelines and procedures, and hence is reflected throughout this entire document, and requires no special mention here. However, three issues do require special mention:
- The need to address financial sustainability from the outset. Lack of conservation finance is the biggest obstacle to conserving biodiversity globally, and a main reason GEF projects do not have a sustainable impact. Activities during the project development phase aimed at better understanding this in the Iranian context. An outline strategy for the long-term financing of conservation in the Central Zagros mountains was developed; elements of the strategy have been incorporated into this proposal and the strategy will be developed and implemented in the Project under Outcome 2.
  - A realistic approach to eco-tourism. Eco-tourism is touted as the solution to biodiversity loss in many parts of the world, in many projects. Experience shows that eco-tourism can be difficult to develop, and the impacts on the biodiversity can be positive or negative. The recent downturn in the international tourism sector further complicates the situation. In the project development phase, it was recognised that Iran’s potential for international tourism is limited. However, Iran does have a tradition of domestic tourism, with a large middle class, and large numbers of people interested in enjoying nature for recreation. The project will explore the opportunities offered by domestic tourism and seek to turn it to biodiversity’s advantage.
  - The mid-term evaluation of the Pakistan Mountain Areas Conservancy project in 2003 identified the need to develop a complementary national level “Mountain ecosystems based programme” with the involvement of all national, provincial and civil society stakeholders. Such a mountain programme and strategy at the national level was needed to provide a broader framework to promote the development of an enabling environment for conservation of the mountain regions and to secure the sustainability of the GEF project conservancies in the long-term and to prevent the project’s efforts from being fragmented and to promote uptake and replication of lessons. This recommendation has been incorporated within the design of the Zagros project through its emphasis on national level advocacy and coordination and replication within provinces;



- The need to involve the small business sector in the implementation of biodiversity conservation projects<sup>27</sup>, and the mechanisms to achieve this.

### Project Monitoring

178. The logical framework in [Annex 2.1](#) provides an initial monitoring framework. Tentative indicators of success are provided for the overall GEF Objective, for each Outcome and for each Output. The means to verify the indicators, along with the baseline situation and the target situation (including timescale) are also outlined.
179. Project monitoring is a core element of project management and implementation. Hence, the final monitoring framework, which is to be implemented by the project team, must be developed by the team. At the project outset, the project team will review the draft monitoring framework in Annex 2.1, it will review and validate (or otherwise) each indicator and each means of verification. For each agreed indicator, the project team will then develop annual targets. The full and finalised monitoring framework will be provided to UNDP/GEF and the PSC for comment and approval within the first six months of the Project. After approval, the project team will constantly collect the information required for monitoring, and report to the PSC on progress.
180. The estimated cost of implementing the monitoring framework is US\$160,000 – this is in addition to the ongoing support provided by the project management. These GEF funds will be used to support an external short-term consultant on monitoring and evaluation, a national monitoring officer (half-time), regular surveys and information collection, preparation of reports, and one independent evaluation.
181. Monitoring of the socio-economic situation and trends across the Zone is vital to the project management and success. This monitoring is undertaken regularly by Iranian agencies, notably the Ministry of Interior and the MoAJ. The project will have access to this information, and be able to use it accordingly. This information will be integrated into the project monitoring framework.
182. Participatory local monitoring. Each of the eight pilot villages is to prepare a natural resource management plan in a participatory manner. Each plan will include a monitoring framework: to monitor change, biodiversity status and the socio-economic situation. Within this context, each piloted village will develop and implement a self-monitoring system. This will facilitate decision-making, and the findings will be fed up into provincial and national policy.
183. Additional important components of the monitoring include:
- The project will prepare a mainstreaming strategy for each sector during the inception phase. Each strategy will have a monitoring framework. The Target for the end of Year 1 is to have finalised the strategy and have the concerned sector agency(ies) sign an agreement with DoE. Sector specific milestones and targets for Years 2 onwards will be developed as part of the strategy for each sector;
  - Under Outcome 3, each pilot village will prepare its own natural resource management plan, with a participatory monitoring framework. This framework will cover the monitoring of changes in behaviour and practices at the village level. This monitoring will feed into decision-making at the village level. This introduction of adaptive management at the village level is highly innovative. In addition to feeding into the monitoring of sustainable development at the Zone level (Output 2.1), the village level monitoring will ensure that the Project team and DoE can closely follow developments in each village, and can advise accordingly.

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<sup>27</sup> UNDP/GEF has a long experience on this (for details see the UNDP/GEF publication ‘*Local Business for Global Biodiversity Conservation*’, 2003). The findings and lessons are integrated into this project design

### **3. FINANCING**

#### **3A Financing Plan**

184. Table 4 below provides a summary of the incremental project costing by project outcome. As can be seen, the biggest slice of GEF financing is allocated to the Conservation Zone level, some of this for Conservation Zone level activities, much of this to help develop the mechanisms that will support activities in the 8 pilot villages.

**Table 4: Financial Summary**

<b>Outcome</b>	<b>GEF</b>	<b>Co-Funding (including local NGO funding to be secured)</b>	<b>Total</b>
1. A supportive national policy and institutional framework	\$650,000	\$1,383,000	\$2,033,000
2. Biodiversity integrated and mainstreamed into development and sectors across the Conservation Zone	\$2,200,000	\$2,982,000	\$5,182,000
3. Village level models of biodiversity friendly development established	\$790,000	\$1,410,000	\$2,200,000
Monitoring and Evaluation	\$160,000	0	\$160,000
<b>Totals</b>	<b>\$3,800,000</b>	<b>\$5,775,000</b>	<b>\$9,575,000</b>

For more detailed information, see [Annex 2.3](#)

185. From Table 4 and Annex 2.3, it can be seen that each Outcome receives some co-financing from a government agency, and most Outcomes receive co-financing from both DoE and a second government agency. This results from the fact that the Project aims to mainstream biodiversity into development and sectoral activities. Broadly speaking, in most Outcomes, the GEF funding is used to strengthen DoE capacity (at national or provincial level) to work with and influence the work-programmes of other ministries or private sector. Then DoE funding is used to actually influence the other ministries. The co-financing from the other government agency reflects the fact that, as a result of the Project, their activities will be modified, influenced or realigned in order to have a more positive impact on biodiversity conservation.

186. Finally, there are some small contributions from local private sector. Although small in overall scale, these reflect an important commitment to the Project objectives on the part of the co-financer. These co-financing elements also reflect the large number of partnerships established during the project development phase by the project team. In addition, many partnerships with NGOs have been created. NGO co-financing to project activities will be leveraged during project implementation.

#### **3B Cost-Effectiveness**

187. In order to ensure cost-effectiveness, the following have been incorporated into project design:

- High-levels of co-financing to replicate project successes. GEF funding is a small part of the overall project package, in general GOIRI funding is used to provide the hardware, and to replicate project successes across the Conservation Zone and to other areas;
- Learning of lessons. The experience of GEF, UNDP and have been studied and incorporated into the project design.

- Monitoring framework and adaptability. At this stage, the outline of a detailed monitoring framework has been developed. This will be finalised at project outset. The monitoring framework will ensure that the project remains on track both strategically and with respect to individual activities. The monitoring framework will ensure that problems and opportunities are immediately identified, and corrections are made to the project design;
- The Project aims, where possible, to build on ideas existing in Iran and the Conservation Zone, to give them support, to give them the benefit of international experience, and to give them the momentum and credibility associated with the CBD and the international community. This approach of supporting existing ideas is more cost-effective than the wholesale import of international ideas.
- The Biodiversity Enterprise Grants Programme builds on the known cost-effectiveness of similar programmes supported by GEF in other countries.

#### **4. INSTUTIONAL COORDINATION AND SUPPORT**

##### **4A Core Commitments & Linkages**

188. The Proposed project will be closely coordinated with the following UNDP Programme initiatives in Iran:
189. **Area-Based Development Programme, for Sustainable Poverty Alleviation.** UNDP is cooperating with the Government of the Islamic Republic of Iran to introduce an area-based development programme in 7 Provinces in Iran. This will introduce integrated, community-based, participatory approaches to addressing economic development, environmental protection and employment generation. The ABD is set to start-up activities in Kohkiluyeh and Boyerahmad (K&B) Province, in the Conservation Zone. Approximately USD 1,592,000 may be allocated to K&B province. Initial linkages have been established with the ABD. The details of the cooperation will be worked out at the inception stage of the proposed project. However, it is likely that ABD can support the BEC, and can provide support for planning and income generation in many of the pilot provinces.
190. **Sustainable Development Strategy and Strategic Environmental Assessment (SEA)** This UNDP supported project is to assist the DoE's Dept. of Human Environment to systematically employ Strategic Environmental Assessment (SEA) as a means to assess the environmental consequences of policies, plans and programmes (PPPs). The project started in January 2004 with a total budget of USD 173,300. The initiative will develop an overall methodology as well as a pilot testing approach to SEA. It will focus on: capacity building within government, private sector and non-governmental players; setting SEA regulations; training and reviewing SEA reports in a participatory manner. The project will focus on three case studies for application of SEA: (a) the 4th Five-year Development Plan of Iran (a country-wide inter-sectoral approach); (b) the Transportation Master Plan under preparation by the government (a sector plan); (c) the status of development activities and plans in Neka Port (a geographically focused plan with cumulative environmental consequences). In addition, UNDP through its ABD programme will specifically support an extension of the SEA programme to Kohkiluyeh province in the CZLCZ. This linkage and piloting of SEA is considered important as development activities in this largely natural resource based provincial economy are only just starting to develop and non-sustainable growth consequences could be avoided by incorporating SEA related preventive approaches in the planning process. The local MPO office in the province has indicated its interest and support for undertaking a SEA pilot in the province.
191. **UNDP/GEF/Small Grants Programme** has been operational in Iran since 1999 and supports several environmental projects in three main zones in Iran. GEF/SGP has been working in Zagros as one of the main focus zones in the country and has 8 projects (ongoing and pipeline) in the whole Zagros.

Four of these projects are active within the Conservation Zone, while another 2 projects could provide lessons for replication in the Conservation Zone. Projects in the Conservation zone include: “People’s participation for Plant Biodiversity Protection in Central Zagros Region” with the NGO Green Message; “Dena in 2002 and Empowerment of the Local Community” with Fars Green Center; “SGP Capacity Building for the Network of Environmental NGOs” with the Network of Environmental NGOS; and “Capacity Building for Grantees” with the NGO Hamiyane Andisheh Sabz. Working linkages will be developed during inception of the proposed project with the GEF/SGP programme.

192. **UNDP/GEF Second National Communication to UNFCCC.** In the framework of preparing its second national communication (SNC) to the UNFCCC, Iran will prepare a national adaptation strategy during the period 2004-2006. The Zagros project will establish linkages with the team responsible for preparing the SNC, and will explore the possibility of identifying SNC/Adaptation pilot sites in the Zone. At such sites, the SNC could explore the linkages between climate change, biodiversity and the water sector.

**4B Consultation, Coordination and Collaboration between IAs, and IAs and EAs, if appropriate.**

Few GEF Agencies are presently active in Iran therefore opportunities for collaboration and coordination with existing GEF projects are limited. This project will work to develop linkages and learn from the experience of other GEF biodiversity projects, though none overlap geographically with the Zagros Conservation Zone. Ongoing GEF funded projects in the country include, notably:

- Conservation of the Asiatic Cheetah, its Habitat and Prey (UNDP/GEF Medium Sized project)
- Conservation of Iranian Wetlands (UNDP/GEF Full Size project)
- Conservation of the Siberian Crane along its Flyways (UNEP/GEF Regional Full Sized project)

In addition, as already noted, the project will seek to build upon the experience generated by the GEF/SGP programme in Iran, especially in the context of the project’s Outcome 3 which will operate at the local and village level.

In the pipeline, a UNDP/GEF National Capacity Self-Assessment project is under preparation to assist in assessing national capacity in relation to the global conventions and coordination with this project will be established once it is underway. Finally, Iran is one of the pilot countries in the Global Pastoral Programme in the GEF’s Land Degradation focal area and appropriate linkages will be established between the Zagros Project and the Pastoral Programme during implementation to ensure that lessons on pastoralism are shared.

**5. RESPONSE TO REVIEWS**

**Response to STAP comments (for full text of STAP Review see Annex 2.12)**

<p><i><b>Comment 1:</b> Provide more specific demographic and socio-economic data, with trend information, so that the reader can gauge the magnitude and direction of recent changes</i></p>
<p><b>Response:</b> In general there is reasonable socio-economic data available at the provincial level in Iran, although inconsistencies and gaps do exist. The information is collected through standard procedures by sectoral and national agencies. The PDF B project analysed some of this information, and collated it for the Conservation Zone (i.e for 2 Provinces and 3 counties from other Provinces). This information was not adequately presented in the draft Brief. The Brief has been strengthened (notably paras. 32, but also covered in 34).</p> <p>It is worth noting that, although one of the poorer regions of Iran, levels of absolute poverty are not high. The Islamic welfare state functions well, and the Government has the funds (and policy) to</p>

<p>support poor people. Hence the socio-economic data shows high levels of access to roads, water and other social facilities, and the vast majority of the population are at least partly integrated into the formal economy.</p>
<p><b>Comment 2:</b> <i>The link between project monitoring and the GEF support is not spelled out in the project proposal. Elucidation would be helpful.</i></p>
<p><b>Response:</b> At the project outset, the project team is to develop a detailed monitoring framework, based on the draft indicators and targets included in the LogFrame. GEF funds will be used to develop this monitoring framework, and to collect the information needed to implement it. Mostly, GEF funds focus on monitoring indicators directly related to natural resources and the biodiversity (i.e. related to the indicators in the Logframe).</p> <p>The project team recognises that monitoring the socio-economic situation across the Zone is vital to the project success. However, such monitoring is undertaken regularly by Iranian agencies, notably the Ministry of Interior and the MoAJ. The project does not need to repeat this monitoring as it will have access to this information, and be able to use it accordingly.</p> <p>At the village level, participatory monitoring mechanisms are to be established in each of the pilot villages. This is very innovative in Iran. In line with the plans, village communities will monitor both ecological and socio-economic development. This has been further emphasised in Paragraph 127 and in the logframe. Finally, the need to communicate the findings of community level monitoring into higher levels of monitoring of sustainable development is clarified in paragraph 111 and in the logframe.</p> <p>The approach to project monitoring has been clarified and strengthened in paras. 178 – 183.</p>
<p><b>Comment 3:</b> <i>A specific, participatory futures programme is recommended, with an enhanced budget.</i></p>
<p><b>Response:</b> Output 2.1 has been restructured to clarify that the output will be a Strategy for development of the zone, incorporating a new vision and integrating biodiversity conservation with development. This strategy will be implemented by the Government, hence the enhanced budget will come from the government, starting in the latter years of the GEF support. See para 111 and Logframe.</p> <p>There is a very large baseline of activities related to Outcome 2. The GEF project will explore and develop linkages with these baseline activities. It is expected that significant government and other co-funding can be leveraged during the lifetime of the project in order to enhance the overall budget support to Outcome 2. The process for developing the new vision and Strategy will be an important tool for this leveraging.</p>
<p><b>Comment 4:</b> <i>Much greater weight should be given to best management practices and guidelines.</i></p>
<p><b>Response:</b> The use of guidelines and best management practices has been increased and incorporated into paras 108, 118 and in the Logframe.</p>
<p><b>Comment 5:</b> <i>Best management rules and guidelines need to be clarified and made more prominent as a separate output and budget line, under Outcomes 2 and 3 and also directed to resource users.</i></p>
<p><b>Response:</b> This is partly covered by Comment 4.</p>

In addition, at the village level, guidelines and documents summarising best management practices rules will be developed through the project activities, jointly with the villagers. This is to ensure that the guidelines are not top-down, but fully reflect the concerns and needs of villagers. This is clarified in para 126 and in Logframe.

Guidelines and best practices manuals will be applicable to all sectors, and will be applicable at the Zone level as well as at the village level. Hence, the project team feel it is more appropriate to integrate guidelines/best management practices across all concerned Outputs, rather than creating a separate Output.

The Logframe does, however, have explicit Indicators and Activities related to guidelines and best practices (at national, Zone and village level), and there will be budget lines for these in the full project budget.

**Comment 6:** *The strategy to promote Alternative Livelihoods should be clarified and a term used to encompass both existing and alternative, income and non-income generating activities.*

**Response:** The strategy has been clarified. The term ‘improved livelihoods’ has been adopted, to include income and non-income, and to include new and improved livelihoods and practices.

This is explained in paragraph 114 (and footnote), and the term is adopted throughout the document.

**Comment 7:** *The process of cooperation with other UNDP and ADB projects should begin immediately in order to closely integrate activities and avoid duplication of effort.*

**Response:** The process of cooperation with UNDP projects (notably the ABD, the SEA and the SGP) has been underway some time. After project brief approval, and before the start of this project’s activities, operational linkages will be determined and established. This has been strengthened/clarified in paras 189-191.

**Comment 8:** *The significance of community control and a direct role in management decisions has not been adequately stressed in the project document. More attention needs to be paid to this.*

**Response:** Helping communities to fully drive local development and be responsible for local resource use is a key and fundamental element of project. The draft Brief did not articulate this clearly. This has been articulated more clearly, and strengthened, notably in paras 125, 129 and 168

**Comment 9:** *Since awareness raising is going to be crucial, it is recommended that an integrated strategy be prepared for this, to cover political and bureaucratic decision-makers, village leaders and other key stakeholders.*

**Response:** The Project team fully recognises the importance of awareness raising, and substantial parts of the project target this. However, the Project team does not agree fully with the comment by the STAP review. The term ‘awareness raising’ covers a mixture of tools, technical contents and strategic approaches, depending on the audience and the message. It requires a multi-faceted, multi-dimensional and multi-stakeholder approach. It ranges from poorest farmers to state presidents, and covers all kinds of media and communication methodologies. It would not make sense to have a single integrated strategy to address this. It is considered far more appropriate to incorporate awareness raising into all other activities at the level of the project’s three Outcomes, rather than create a stand-alone awareness raising component. This is the approach adopted in the project.

However, there should be a coherent and strategic *approach* to all awareness raising activities. This approach, and the general importance of awareness raising, has been emphasised in the revised Brief. The need for Project staff member to work strategically and effectively on this has also been clarified in the Brief. A national expert will be recruited to develop the awareness raising strategy and programme, to oversee its implementation, and to monitor its impact (para 171). In addition, a gender specialist will form part of the project team and will specifically address outreach to women (para 172).

**Comment 10:** *Output 3 should be modified to reflect explicitly a local educational and awareness-raising programme.*

**Response:** The project design team has carefully considered this issue. It was felt that the term ‘social communication’ is more appropriate at the village level, rather than the term ‘awareness raising’ (which, in the local context, suggests a top-down, answer-providing approach). Through this approach, in the pilot villages, messages will be jointly (i.e. by project, local people and conservationists) developed and delivered in terms immediately meaningful to local people, rather than using internationally or nationally appropriate messages and measures. Government will then disseminate the material across the Zone.

This is clarified in para 104, 130 and 171, and in the Logframe through a new Output 3.5 (Improved appreciation of biodiversity and its contribution to socio-economic development in villages across the Zone.)

## **ANNEXES**

[2.1](#) Logical Framework and Monitoring Framework

[2.2](#) Incremental Cost Analysis

[2.3](#) Budget Calculations

[2.4](#) Participation Strategy/Stakeholder Involvement Strategy

[2.5](#) Maps

[2.6](#) Endorsement and Co-financing Commitment Letters

[2.7](#) Biodiversity in the Central Zagros Landscape Conservation Zone, its Use and Its Management system

[2.8](#) The Biodiversity Enterprise Grants Programme

[2.9](#) Key Ongoing Government Natural Resource Management Programmes in Conservation Zone

[2.10](#) Detailed Problem and Solution Analysis for the Management of the Central Zagros Landscape Conservation Zone

[2.11](#) Supporting Documentation

[2.12](#) Review by STAP Roster Expert

[2.13](#) Matrix Outlining Baseline, Alternative and Indicators for Mainstreaming Biodiversity into each Key Sector

## Annex 2.1 Logical Framework and Monitoring Framework

Narrative Summary	Indicator	Means of Verification	Baseline	Target (Year)	Assumptions
<b>Overall Goal:</b> The Zagros Mountains Socio-Economy Develops Successfully and Supports Biodiversity Restoration and Conservation					
<b>GEF Project Objective:</b> Conservation of the Biodiversity and the Landscape within the Central Zagros Landscape Conservation Zone	%ge of the Zone under a management regime addressing biodiversity	National and provincial statistics	Only DoE PA land address biodiversity.	100% of non-urban land subject to some regulations regarding biodiversity by Year 5	No significant increase in environmental threats (e.g. global warming or rapid rises in poverty)
	Number of <u>free range livestock</u>	Departmental Statistics Project and DoE monitoring	Figures are available	Decrease by 25% by Year 5	No natural crises impacting environment
	Population of key species (Persian squirrel, Wolf) is stabilised or slowly increasing  Erosion levels or level vegetative cover in the Zone	National and provincial statistics	Figures are available for several species in limited areas.  To be determined	Figures stable or increasing by Year 5  Stable by Year 5	No influx of refugees from nearby provinces are countries
<b>Outcome 1:</b> A national institutional and policy framework that is fully supportive of mainstreaming biodiversity into development in the central Zagros mountains  <b>Output 1.1</b> Partnerships established between	<u>See outputs</u>  Resources	Financial	Only DE	\$1mn	International



<p>biodiversity sector and key national and international stakeholders</p>	<p>mobilised and dedicated to BD conservation from national or international sources</p> <p>Joint work programmes between DE and MoAJ/MoE/CHTO</p>	<p>agreements</p> <p>MoU</p>	<p>finances BD directly</p>	<p>annually by Year 4</p> <p>Underway by Year 3</p>	<p>stability</p> <p>Environmental Fund is approved and financed</p>
<p><b>Output 1.2</b> National macro and sectoral policies and practices modified/developed to favour sustainable utilisation of Zagros biodiversity</p>	<p>Tax incentives for sustainable harvesting activities.</p> <p>Zagros biodiversity mentioned in at least 2 sectors in 5<sup>th</sup> Five Year Plan with clear objectives</p> <p>Existence of legal and implementation framework supporting the integration of BD into national policies and practices in the key sectors, eg guidelines that are operational</p>	<p>Reports to NCSD</p> <p>Fifth Five Year Plan</p> <p>Reports to NCSD</p>	<p>No examples</p> <p>Biodiversity mentioned in 4<sup>th</sup> Five Year Plan, but no effective mainstreaming</p> <p>As of yet, no implementation framework exists. There are no guidelines</p>	<p>Year 4</p> <p>Year 5</p> <p>Year 4</p>	<p>Next Government in Iran is equally in favour of sustainable development</p>

<p><b>Output 1.3</b> Lessons learnt disseminated across the entire Zagros mountainous region</p>	<p>Government departments in at least 7 provinces formally adopt measures and practices and approaches developed under this project</p>	<p>Project Records</p>	<p>4 Provinces committed to the project</p>	<p>Year 4</p>	<p>Lessons learnt are equally applicable to situation in neighbouring provinces</p>
<p><b>Outcome 2:</b> Sustainable use and conservation of biodiversity is integrated into economic and sectoral programmes and government practices at the Conservation Zone level</p>	<p>New Vision for the Conservation Zone issued by political authorities (e.g. proposal for MAB status) and funded by government agencies.  Integrated, participatory monitoring of socio-economic development and biodiversity levels</p>	<p>National records  Provincial/Project records</p>	<p>No single coherent vision established for development of region  Monitoring is fragmented and top-down. It is not being use for adaptive management, but simply for accountability.</p>	<p>Year 3  Year 3</p>	<p>Decentralisation process keeps on track  Zone is compatible with MAB requirements</p>
<p><b>Output 2.1</b> New Strategy for Development operational, incorporating new vision, and biodiversity  (This Output will linked into UNDP Area-Based Development Programme activities in the Zone)</p>	<p>Approved Strategy or Vision  Provincial MPOs adopt biodiversity conservation as main element of provincial development</p>	<p>Provincial records  Provincial records</p>	<p>N/a  Only Provincial DE support biodiversity</p>	<p>Year 4  Year 3  Year 5</p>	

	Monitoring (including social, economic and environmental) of vision implementation is effective and used by provincial agencies, and linked to monitoring of the pilot villages (Outcome 3)	Provincial records	No integrated monitoring. Monitoring does not support adaptive management.	Year 5	
	MBRC operating sustainably	MBRC records	-		
<b>Output 2.2</b> Effective mechanisms to support village-driven improved livelihood development in the Zone  (This Output will support all activities in Outcome 3, and ensure that the lessons, mechanisms and findings of Outcome 3 are suitably disseminated across the entire Zagros region)	Biodiversity Enterprise Centre (BEC) financially sustainable	BEC records	-	Year 5	Biodiversity Enterprise Centre approach is suitable to Zagros region
	The number of non-pilot villages that seek support from BEC.	Project Records	8 villages will be piloted by Project	At least 3 per year by Year 3, and onwards	
(This Output will linked into UNDP Area-Based Development Programme activities in the Zone)	Government extends BEGP into second cycle	DoE Records		Year 5	
<b>Output 2.3</b> Biodiversity mainstreamed into water resources sector development	MoU between DoE and water organisation	Project records	N/a	Year 1	National approach to water management continues to evolve to
	Strategy for mainstreaming	Project records	N/a	Year 1	

	approved and operational	Provincial and national budgets	One proposed scheme to transfer 0.1% of water fees from Khuzestan to Chaharmahal province. DOE has little influence	At least \$1 mn per year, by Year 3	market-oriented approach
<p><b>Output 2.4</b> Biodiversity mainstreamed into agriculture, rangelands and forestry sectors development</p>	<p>Water-user fees transferred to ecosystem protection in 1-2 pilots.</p>	<p>Provincial and national budgets</p>	<p>One proposed scheme to transfer 0.1% of water fees from Khuzestan to Chaharmahal province. DOE has little influence</p>	<p>At least \$1 mn per year, by Year 3</p>	<p>market-oriented approach</p>
	<p>MoU between DoE and FRWO units</p>	<p>Project Records</p>	<p>N/a</p>	<p>Year 1</p>	
	<p>Strategies for mainstreaming approved and operational</p>	<p>Project records</p>	<p>N/a</p>	<p>Year 1</p>	
	<p>Contribution to economy of biodiversity friendly income-generating activities in the sector.</p>	<p>Provincial records</p>		<p>Years 3 – 5, increases</p>	
	<p>Reforestation activities directly support biodiversity conservation</p>	<p>FRWO records and reporting</p>		<p>Year 3 onwards</p>	
	<p>Revised provincial framework regarding ownership of rangelands</p>	<p>Provincial records</p>		<p>Year 4 onwards</p>	
				<p>Year 4 onwards</p>	

	<p>FRWO reporting to Province and DoE on biodiversity impact and related activities</p> <p>No. of FRWO financed nature conservation projects jointly managed with DoE</p> <p>Total value of provincial FRWO projects directly addressing biodiversity</p> <p>Guidelines and 'Best practices' are regularly used by provincial agencies</p>	<p>Provincial records</p> <p>Provincial records</p> <p>Project Records</p> <p>Project records</p>	<p>Provincial records</p> <p>Project Records</p> <p>Project records</p>	<p>At least one new project or programme each year, starting Year 3</p> <p>Year 3</p>	
<p><b>Output 2.5</b> Biodiversity mainstreamed into development of the tourism sector</p>	<p>MoU between DoE and CHTO organisation</p> <p>Strategy for mainstreaming approved and operational</p> <p>%ge of domestic tourists respecting</p>	<p>Project funded surveys</p> <p>Project Records</p> <p>CHTO records</p>	<p>N/a</p> <p>N/a</p> <p>Baseline almost 0, to be</p>	<p>Year 1</p> <p>Year 1</p> <p>Increase by 5% per year, starting Year 2</p>	<p>Overall tourism sector remains dynamic</p>

<p><b>Output 2.6</b> Biodiversity conservation tools are effective across the <i>entire Conservation Zone</i></p>	<p>and appreciating ecosystem</p> <p>Guidelines and 'Best practices' are regularly used by provincial agencies and private sector operators</p>	<p>Protected Area budget</p> <p>Hunting levels outside of PAs</p>	<p>Records of all PAs in Conservation Zone</p> <p>Project records</p>	<p>determined through project survey</p> <p>No current guidelines</p>	<p>Year 3</p>	
			<p>Figures are available</p> <p>Though regulations exist hunting levels are far in excess. Baseline to be determined during Year 1.</p>	<p>Rises 20% annually, starting Year 2</p> <p>10% annual reduction estimated starting in Year 2</p>		

<p><b>Outcome 3:</b> Successful, sustainable, financially replicable models of <i>village designed and village driven</i> approaches to increasing income generation and conserving biodiversity in biodiversity rich areas</p>	<p>Significant improvement in biodiversity status surrounding at least 6 pilot villages</p> <p>Improved socio-economic conditions in at least 6 pilot villages</p> <p>Level of support for biodiversity conservation at villages across the entire Zone</p> <p>8 villages listed.</p>	<p>A community-level participatory monitoring framework is to be prepared under this Outcome</p> <p>Results of polls financed by project</p> <p>Project records</p> <p>Project records</p>	<p>Related surveys were implemented under the PDF project. However, specific details are to be determined at outset of project</p>	
<p><b>Output 3.1</b> 8 Selected villages</p>			<p>3 of the pilot villages were pre-selected under PDF B</p>	<p>Year 2</p>
<p><b>Output 3.2</b> Participatory natural resource planning, monitoring and management mechanisms established in each village, with full involvement of local communities, and in cooperation with DoE staff</p>	<p>Village Council and DoE staff meet at least 3 times per year</p>	<p>Project records</p>	<p>Mixed relations between DoE and local people, some conflicts and no formalised agreements</p>	<p>Year 2 onwards</p>
<p><b>Output 3.3</b> Long term natural resource management plans for each village</p>	<p>Plans approved by Councils and DoE, and fully supported by people</p>	<p>Project records</p>	<p>No integrated resource use plans or participatory processes</p>	<p>Year 2-3</p>
<p><b>Output 3.4</b> Plans are implemented, monitored, revised in an iterative manner. (Output 2.6 will</p>	<p>Local support for and understanding</p>	<p>Project Funded Surveys</p>	<p>Awareness and understanding</p>	<p>To be determined</p>

provide the technical support to this Output)	of biodiversity Improved income of pilot villages  Community monitoring of biodiversity and socio-economic status and trends feeds into regular community decision-making.	Household income survey  Records of community meetings	of biodiversity as a concept is close to zero Figures known for 3 villages (from PDF B reports) Not applicable	at project outset  As of Year 3, increases 10% annually  As of Year 3	
<b>Output 3.5</b> Improved appreciation of biodiversity and its contribution to socio-economic development in villages across the Zone.	Level of support for the concept of protected areas	Protected Area records	Not currently measured, but known to be low.	Regular increases	
<b>Activity Framework</b>					
<b>Output</b>					
<b>Output 1.1</b> Partnerships established between biodiversity sector and key national and international stakeholders	<b>Activities</b> <ul style="list-style-type: none"> <li>- Regular meetings of PSC and TAT</li> <li>- PSC and TAT members regularly lobby national government agencies (eg. FRWO, CCDCZ) and international agencies (eg: CBD, NGOs, ODA agencies);</li> <li>- MoU's developed</li> <li>- Develop proposals for financing and submit to national and international agencies</li> </ul>				



<p><b>Output 1.2</b> National macro and sectoral policies modified to favour sustainable utilisation of Zagros biodiversity</p>	<ul style="list-style-type: none"> <li>- Economic valuation of central Zagros ecosystems for Iran</li> <li>- Awareness raised in decision-makers in all sectors of the values of Zagros biodiversity</li> <li>- Studies commissioned by concerned agencies addressing, fiscal, trade, tourism, agriculture, forestry and rangelands policies</li> <li>- Guidelines and manuals on best practices prepared</li> <li>- Sector agency implement and adopt the findings of the studies and report on success to NCS</li> <li>- Partnerships and consensus developed</li> </ul>
<p><b>Output 1.3</b> Lessons learnt disseminated across entire Zagros mountainous region</p>	<ul style="list-style-type: none"> <li>- Three neighbouring provinces involved in many project capacity building activities</li> <li>- Awareness raising of governments in three neighbouring provinces</li> <li>- Two high level seminars to share experience with neighbouring and other Iranian provinces</li> </ul>
<p><b>Output 2.1</b> New Strategy for Development operational, incorporating new vision and biodiversity (This Output will linked into UNDP Area-Based Development Programme activities in the Zone)</p>	<ul style="list-style-type: none"> <li>- The 4 Provincial Planning Councils establish a Conservation Zone Working group on biodiversity conservation</li> <li>- Establish two Mountain Biodiversity Resource Centres (MBRC)</li> <li>- Estimate value of biodiversity in the region</li> <li>- Develop, in a participatory manner, a 'New Vision' for development across the four provinces in the Conservation Zone</li> <li>- Explore 'Man and Biosphere' concept, and, if appropriate, develop proposals</li> <li>- Targeted awareness raising and advocacy campaigns for political and economic decision-makers</li> <li>- General awareness raising campaigns for public in central Zagros region</li> <li>- Develop development strategy, to be implemented by Government after project.</li> <li>- Develop related framework to monitor the broad situation in the Zone, and linked to the monitoring of the pilot villages implemented through Outputs 3.1 – 3.4.</li> </ul>

<p><b>Output 2.2</b> Effective mechanisms to support village-driven improved livelihood development in the Zone (This Output will support all activities in Outcome 3, and ensure that the lessons, mechanisms and findings of Outcome 3 are suitably disseminated across the entire Zagros region)</p> <p>(This Output will linked into UNDP Area-Based Development Programme activities in the Zone)</p>	<ul style="list-style-type: none"> <li>- Coordination and monitoring of activities in Outcome 3</li> <li>- Establishment of a Biodiversity Enterprise Centre (BEC) to support private sector development of improved livelihoods in the Central Zagros Region, notably at the demonstration sites in Outcome 3. This should also build on activities in Outputs 2.2 – 2.4</li> <li>- Review of the Alternative livelihood Strategies (prepared in the PDF) and determination of components for the pilot village sites;</li> <li>- Development of packages of technical support to activities in the agriculture, forestry, rangeland and tourism sectors, including training, back-up, etc.</li> <li>- Develop information base, and arrangements for facilitating small-scale private sector investment projects at village level that sustainably utilise or conserve biodiversity</li> <li>- Ongoing technical support to villages</li> <li>- Reviewing of lessons from Outcome 3, and disseminating at the national level, to all concerned sectors and to provincial levels.</li> <li>- Establishment of a local Biodiversity Enterprise Grants Programme (BEGP), to co-finance small-scale dedicated biodiversity conservation activities across the region.</li> </ul>
<p><b>Output 2.3</b> Biodiversity mainstreamed into water resources sector development in the Zone</p>	<ul style="list-style-type: none"> <li>- Provincial bureaux for DoE, MoE and MoAJ establish joint working group on water and biodiversity, led by MoE.</li> <li>- International experience of integrating water management and biodiversity is assessed</li> <li>- MoU signed between DoE, MoE and provincial government;</li> <li>- Strategy for mainstreaming developed, with monitoring framework</li> <li>- Existing mechanisms for ecosystem payments in Iran are examined;</li> <li>- Develop, in a participatory manner, ecosystem payments proposal (see <i>Sustainable finance Strategy for Conservation of Biodiversity</i>), using comprehensive research studies and necessary legal work;</li> <li>- Guidelines and standards for all water management projects in the region and EIA process are prepared</li> <li>- Capacity building for experts/officials in water sector</li> </ul>

<p><b>Output 2.4</b> Biodiversity mainstreamed into the development of the agriculture, rangelands and forestry sectors in the Zone</p>	<p>(The lessons and findings of Outcome 3 are constantly fed into the design and implementation of activities under this Output )</p> <ul style="list-style-type: none"> <li>- Provincial bureaus for DoE and MoAJ establish joint working group on natural resources management and biodiversity, led by MoAJ;</li> <li>- International experience of integrating natural resources management and biodiversity is assessed;</li> <li>- MoU signed between Doe, MoAJ and provincial government;</li> <li>- Strategy for mainstreaming developed, with monitoring framework</li> <li>- Guidelines, standards and best practices manuals for all forestry, rangeland and agricultural programmes and projects in the region are prepared, and EIA implementation guidelines modified;</li> <li>- SEA is developed as a tool for natural resources management across the Zone;</li> <li>- A review is undertaken of all existing forestry, rangeland and agricultural programmes and projects and, using SEA, these are modified in order to have increased beneficial impact on biodiversity</li> <li>- Using BEC and BEGP to initiate private sector investments in biodiversity friendly income generation investments;</li> <li>- New marketing niches for Zagros products are explored (linked with Output 2.6)</li> <li>- Training and capacity building for Agriculture, Rangelands, and Forestry experts and officials</li> </ul>
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<p><b>Output 2.5</b> Biodiversity mainstreamed into development of the tourism sector in the Zone</p>	<p>(The lessons and findings of Outcome 3 are constantly fed into the design and implementation of activities under this Output )</p> <ul style="list-style-type: none"> <li>- Provincial bureaus for DoE and CHTO establish joint working group on tourism and biodiversity, led by CHTO</li> <li>- The strategies provided in the PDF reports on Conservation Financing and Alternative Livelihoods reviewed and implementation approaches determined;</li> <li>- International experience of integrating tourism and biodiversity is assessed</li> <li>- MoU signed between DOE, MoAJ and provincial government;</li> <li>- Strategy for mainstreaming developed, with monitoring framework</li> <li>- A review is undertaken of the existing tourism development plan, and it is modified in order to focus increasingly on key biodiversity areas, to increase eco-tourism and adventure tourism, and to be biodiversity friendly. A Zone-wide plan is developed, with funding</li> <li>- Using BEC and BEGP to initiate private sector investments in biodiversity friendly income generation investments</li> <li>- Guidelines, standards and best practices manuals for all tourist activities are prepared</li> <li>- Training and capacity building for Tourism experts and officials</li> </ul>
<p><b>Output 2.6</b> Biodiversity conservation tools are effective across the Zone</p>	<ul style="list-style-type: none"> <li>- A large scale biodiversity assessment (surveys) and monitoring programme is designed and launched;</li> <li>- The biodiversity network in the central Zagros region is reviewed and revised – both the existing borders and the allowed activities</li> <li>- PAs are provided technical support for conservation financial planning and related training – the Conservation Financing Strategy developed under the PDF B is implemented.</li> <li>- Financing is mobilised to protected area network in central Zagros</li> <li>- Business oriented management plans are prepared for key Protected Areas, based on experiences under Outcome 3</li> <li>- Protected area network planning is integrated into water, natural resources and tourism sectors planning</li> <li>- Where possible, villagers will be employed in these activities (eg the survey).</li> </ul>

<p><b>Output 3.1</b> 7-8 villages representing different ecosystem types and threats are selected</p>	<p>(3 villages were selected and surveyed under PDF);</p> <ul style="list-style-type: none"> <li>- Provincial authorities, with support from project, identify 4-5 additional villages.</li> <li>- Survey the new villages</li> <li>- Construct and furnish 'Participation House' at Sabzkuh PA and Dena PA</li> <li>- Develop and furnish two mobile 'Participation Houses' to travel across the Conservation Zone</li> <li>- Training for provincial authorities in participatory planning and management</li> </ul>
<p><b>Output 3.2</b> Natural resource planning, monitoring and management mechanisms established in each village, with full involvement of protected area staff</p>	<ul style="list-style-type: none"> <li>- At the 3 pre-selected villages, hold initial planning meeting</li> <li>- Establish village natural resources management committee, with involvement of DoE, and with technical support of project at each village</li> <li>- Likewise for the new villages</li> </ul>
<p><b>Output 3.3</b> Long term natural resource management plans for each village</p>	<ul style="list-style-type: none"> <li>- At the 3 pre-selected villages, under the supervision of the natural resources management committee, undertake detailed, participatory natural resources planning process. Each plan to cover integrated monitoring by local community.</li> <li>- Follow-up at the new villages</li> </ul>

<p><b>Output 3.4</b> Plans are implemented, monitored, revised in cyclical manner. (Output 2.6 will provide the technical support to this Output)</p>	<ul style="list-style-type: none"> <li>- Implement plans, with technical support of project and political support of government agencies. Activities (many with support from the BEC) may include: <ul style="list-style-type: none"> <li>o Develop (together with villagers) best practice manuals and guidelines;</li> <li>o Assessment of and agreement to sustainable harvesting levels;</li> <li>o Land use classification in the village and nearby areas;</li> <li>o Development of communal harvesting regulations;</li> <li>o Local monitoring of biodiversity;</li> <li>o Facilitating credit and developing feasibility studies for local enterprises</li> <li>o Introducing new agricultural, rangeland and forestry techniques, enabling income generation but conserving natural resources</li> <li>o Training on concerned improved livelihoods</li> </ul> </li> <li>- Monitor the local development process, in terms of economics, social changes, biodiversity, practices and attitudes. Use the results of monitoring to feed into future village level decision-making. Feed the monitoring results into the Zone wide process to develop a Zone wide monitoring framework (Output 2.1)</li> <li>- Provision of dedicated support (technical, marketing advice, institutional, credit, etc) for improved livelihoods, to biodiversity friendly, income generating activities in the village</li> </ul> <p>Some activities will be financed by the Biodiversity Enterprise Grants Programme.</p>
<p><b>Output 3.5</b> Improved appreciation of biodiversity and its contribution to socio-economic development in villages across the Zone.</p>	<ul style="list-style-type: none"> <li>- Develop social communication strategy;</li> <li>- In connection with Outputs 3.3 and 3.4, develop materials and mechanisms;</li> <li>- Participation houses and other government mechanisms disseminate the materials;</li> </ul>

## **Annex 2.2 Incremental Cost Analysis**

### **1. Broad Development Objective**

1.1 The Central Zagros mountains is one of the most beautiful and poorest regions of Iran. It is also a home for a large and growing population, including a sizeable nomadic community. It is also the source for a large proportion Iran's overall water supply. For these reasons, sustainable development of the Central Zagros mountains is a high priority for the Government of Iran. The Government aims to do this through developing the natural resource management sectors, stimulating tourism, developing urban areas and nearby small industry. A strategic aim is to increase the level of participation in planning and decision-making, and to progressively decentralise power and responsibility from Tehran to provincial capitals and to lower levels of governance. Recognising the value of the natural resources and the biodiversity, the national and provincial governments are fully committed to their sustainable use and conservation.

### **2. Global Environmental Objective**

2.1 Global environmental benefits consist of direct use, indirect use and none-use values. The project will help conserve large numbers of medicinal and nutritionally plant species being directly used now and in the near future, and conserve unique mountain systems of direct use in the tourism, health and recreational sectors. The project will help conserve the indirect use value of the ecosystem functions (hydrological cycle). The project will also help conserve large numbers of wild relatives of commercial species with genetic resources for future use. The project's target area also has a global existence value arising from the non-trivial per capita existence values multiplied by the hundreds of millions of developed country citizens who hold these values and live outside of Iran.

2.2 The Project will conserve these values by mainstreaming biodiversity conservation into the development processes, into the natural resource management and tourism sectors across the 2.5 million hectares of the Central Zagros Landscape Conservation Zone.

### **3. Overview**

3.1 Baseline and Incremental Costs have been assessed temporarily over the full project five years of the GEF intervention, and geographically by the borders of the Conservation Zone and the proximate the administrative (district) borders. Thematically, the Costs include general sustainable development of the Conservation Zone, and the main economic sectors interacting with biodiversity (agriculture, forestry, rangelands, tourism and water), and the costs of the protected area system in the Conservation Zone. The Costs include the costs of national and local government agencies, international agencies, local private sector philanthropic, local NGOs and GEF.

3.2 Incremental costs include both the costs of reorienting (modifying) baseline activities and supporting additional activities required to conserve the biodiversity.

### **4. Baseline Scenario**

4.1 In the baseline, the land set aside for strict biodiversity protection is likely to grow. This land will probably be well protected. However, this area is likely to remain a small percentage of the Conservation Zone. All other land is unlikely to be adequately protected and will decline. In the baseline, the result is a continuing process of 'islandisation'; as the remaining biodiversity is found in small, unsustainable islands. The unique forests will continue to degrade, and many of the plant and animal species disappear or decline, including unique and endemic species. Crucially, most of the mountain ecosystem will be degraded and damaged, and will have lost its value and integrity as one of the world's great ecosystems. With a growing

number of roads and increased access, hunting pressures will finally eliminate several large mammals from this mountain range.

4.2 Overall, in the proposed Conservation Zone, the present development process will continue, incomes will rise slowly, natural resource use will become increasingly un-sustainable and the pressure on biodiversity will increase. Government support to local communities will continue to be top-down and technology driven, rather than participatory and village-driven. Government activities will continue to be sectoral and fragmented, many modern ideas – including biodiversity conservation -will continue to have supporters and possibly be increasingly mentioned in policy statements, but they will not be operationalised.

## **5. Baseline Cost Analysis**

5.1 All costs in the baseline come from the Government of Iran, either from the national agencies or through the provincial governments. An important part of the baseline is the DoE budget to manage the existing protected area system (Outcomes 2 and 3). In year 2003/2004, total DoE protected area funding in the Conservation Zone was estimated at \$91,400. Some of this is financed directly from Tehran, while other parts are managed by the provincial DoE. Over five years, in the baseline scenario, DOE funding directly to the Zone would be \$12,350,000.

5.2 The most significant baseline funding comes through the series of natural resource management programmes and projects (some of these are described in Annex 2.9). These programmes aim notably at reforestation, improving agricultural and rangelands practices, disseminating fossil fuels and supporting community development in villages. Others include water management and tourism promotion. Over the next five years, the overall value of the most pertinent of these programmes is estimated to amount to about (for Outcomes 2 and 3) \$55,530,000.

5.3 In the baseline, at the national level, a small amount of funds are to be invested in developing appropriate capacity (Outcome 1) (DOE: \$550,000; Others \$1,430,000).

5.4 Hence total baseline funding is: \$82,960,000

## **6. Global Environmental Objective**

To conserve and sustainably use the biodiversity across the Central Zagros Landscape Conservation Zone.

## **7. GEF Alternative**

The Alternative consists of modifying baseline initiatives and supporting additional initiatives in order to achieve a mainstreaming of biodiversity conservation into development across the Conservation Zone.

Outcome 1 At the national level, the first step is to strengthen partnerships between conservationists and key government agencies – notably the MoAJ, MoE, CHTO and the CCDCZ and international agencies. Results could include line agencies realigning existing projects to include conservation activities, the Environmental Fund allocating finance to biodiversity conservation in the Zagros, and international sources of financing secured. A second step is to influence macro-policies and sectoral policies (tourism, agriculture, forestry and rangelands). Finally, at the national level, the Project will also play a key role in disseminating and replicating the project findings and lessons throughout the entire Zagros region and Iran. DoE will take the lead at the national level. At this level, the Alternative projects costs \$4,013,000. Of the increment, DOE will finance \$1,090,000, other national agencies \$143,000, NGOs \$115,000, UNDP/SEA \$35,000 and GEF \$650,000.



Outcome 2 Across the Conservation Zone, the alternative project will mainstream biodiversity into programme, policies and practices in the overall development process and in the following sectors: agriculture, rangelands, forestry, tourism and water. This will require the development of operational partnerships. In addition, across the Conservation Zone, the alternative will strengthen capacity to mainstream and to manage the protected area system. Finally, at the Conservation Zone level, the alternative project will develop a series of tools and mechanisms which is capable of supporting villages and communities in: effective participatory planning, managing resources, conserving biodiversity and livelihood development. For activities in the Conservation Zone, the Alternative project costs \$84,482,000. Of the increment, DOE will finance \$1,905,000, other national agencies \$712,000, NGOs and Private Sector \$290,000, UNDP/TRAC \$25,000, UNDP/ABD \$50,000 and GEF \$2,200,000.

Outcome 3 In 8 villages across the Zone, the Alternative project will demonstrate how biodiversity can be mainstreamed into economic development at the village level, using participatory mechanisms, in a financially sustainable manner, and building on exiting practices and traditional management mechanisms. The Alternative Project will also develop mechanisms to disseminate and replicate the findings from the 8 villages across the Zone. In the Alternative project, costs at these 8 villages is \$3,880,000. Of the increment, DOE will finance \$1,035,000, other national agencies \$305,000, NGOs and Private Sector \$20,000, UNDP/TRAC \$25,000, UNDP/ABD \$25,000 and GEF \$790,000.

Monitoring and Evaluation costs, to be covered by GEF, amount to \$160,000.

## **8. Incremental Cost**

The matrix below summarises the baseline, alternative and incremental costs expenditures during the Project. The total incremental cost is \$9,575,000 (excluding the PDF B), with a GEF contribution of \$3,800,000 (39% of the total).

## Incremental Cost Matrix

Outcome/Outputs	Costs (1000 US\$)					
	Baseline		Alter-native	Incremental cost		
				GEF	Co-Finance	
1. A supportive national policy and institutional framework						
1.1 Partnerships established	DOE	200		220	DOE	350
					NGO and PS	75
1.2 Policies/practices modified	DOE	250		250	DOE	320
	MoAJ	300			MoAJ	70
					National Ministries	33
					UNDP/SEA	35
1.3 Dissemination	DOE	100		180	DOE	420
					Other Ministries	40
					NGO/PS	40
<b>1 Sub-Total</b>		<b>1,980</b>	<b>4013</b>	<b>650</b>		<b>1,383</b>
2. BD integrated and mainstreamed across the Zone						
2.1 Overall development paradigm and strategy	DoE	2,600		350	DOE	380
	MoAJ	3,200			MOAJ	125
					Other Ministries	85
					UNDP/TRAC	25
2.3 Water sector	DOE	800		260	DoE	110
	MOAJ	1,000			MOAJ	100
					Other Ministries	32
2.4 Agriculture, rangelands and forestry	DOE	1,000		280	DoE	140
	MOAJ	50,000			MOAJ	175
2.5 Tourism	DOE	100		190	DOE	250
					Other Ministries	55
					NGO/PS	20
2.6 BD Conservation tools	DOE	7,000		440	DOE	800
					Other Ministries	40
					NGO/PS	0
2.2 Livelihood development support mechanisms	MOAJ	600		680	DOE	225
					MOAJ	100
					NGO/PS	270
					UNDP/ABD	50
<b>2 Sub-Total</b>		<b>79,300</b>	<b>84,482</b>	<b>2,200</b>		<b>2,982</b>

Outcome/Outputs	Costs (1000 US\$)					
	Baseline	Alter- native	GEF	Incremental cost Co-Finance		
3. Successful financially sustainable village level models						
3.1 8 villages	DOE	100		110	DOE	55
	MOAJ	130			MOAJ	50
	Other Ministries	150			Other Ministries	30
					NGO/PS	20
3.2 Natural resource part. Planning and management systems	DOE	100		120	DOE	350
					UNDP/TRAC+ ABD	50
3.3 Long term plans	DoE	100		280	DoE	280
3.4 Plans implemented	MoAJ	300		200	DoE	270
	Other Ministries	800			MoAJ	100
					Other Ministries	100
3.5 Social Communication	All ministries	0		80	DoE	80
					MoAJ	25
<b>3 Sub-Total</b>		<b>1,680</b>	<b>3,880</b>	<b>790</b>		<b>1,410</b>
Monitoring and Evaluation		0		160		0
<b>M&amp;E Sub-Total</b>		<b>0</b>	<b>160</b>	<b>160</b>		<b>0</b>
<b>GRAND TOTALS</b>		<b>82,960</b>	<b>92,535</b>	<b>3,800</b>		<b>5,775</b>

## ANNEX 2.3 BUDGET CALCULATIONS

		Activity Framework							
		Co-Financing (*1000USD)							
Output	DoE	MoAJ	Other Ministries	NGOs (to be secured)	UNDP	Private Sector	GEF (*1000USD)		
Output 1.1 Partnerships established between biodiversity sector and key national and international stakeholders	350	0	0	50	0	25	220		
Output 1.2 National macro and sectoral policies/practices modified/improved to favour sustainable utilisation of Zagros biodiversity	320	70	33	0	35	0	250		
Output 1.3 Lessons learnt disseminated across entire Zagros region	420	0	40	40	0	0	180		
Output 2.1 Overall development paradigm and strategy	380	125	85	0	25	0	350		
Output 2.2 Effective mechanisms to support village-driven alternative livelihood development in the Zone	225	100	0	270	50	0	680		
Output 2.3 Biodiversity mainstreamed into water resources sector development in the Zone	110	100	32	0	0	0	260		
Output 2.4 Biodiversity mainstreamed into agriculture, rangelands and forestry sector development in the Zone	140	175	0	0	0	0	280		

Output 2.5 Biodiversity mainstreamed into development of the tourism sector in the Zone	250	0	55	0	0	0	20	190	
Output 2.6 Biodiversity conservation tools are effective across the entire Conservation Zone	800	0	40	0	0	0	0	440	
Output 3.1 8 selected villages	55	50	30	20	0	0	0	110	
Output 3.2 Natural resource planning and management mechanisms established in each village, with full involvement of local communities and DoE	350	0	0	0	50	0	0	120	
Output 3.3 Long term natural resource management plans for each village	280	0	0	0	0	0	0	280	
Output 3.4 With technical support, plans are implemented, monitored, revised in cycle manner. (Output 2.6 will provide the technical support to this Output)	270	100	100	0	0	0	0	200	
Output 3.5 Social Communication and Awareness raising	80	25	0	0	0	0	0	80	
<b>TOTALS</b>	<b>4,030</b>	<b>745</b>	<b>415</b>	<b>380</b>	<b>160</b>	<b>45</b>	<b>3,640</b>	<b>3,640</b>	
<i>GEF Contribution to Monitoring and Evaluation to be additional (M&amp;E)</i>									
								sub-total	3,800
								sub-total	5,775
								<b>GRAND TOTAL (USD)</b>	<b>9,575,000</b>

## **Annex 2.4 Participation Strategy/Stakeholder Involvement Strategy**

During the preparation of the project, a national team, supported by an international consultant, developed initial capacity on participatory approaches in the Zagros region and outlined a participation strategy for the full project. Details of the findings and recommendations can be found in the separate report: “*Participatory Approaches to Biodiversity Conservation Planning in the Central Zagros Ecosystem, Iran*” (Fuller, 2003), in particular the section: “Comments and/or Recommendations on Participatory Planning for the Full Project Design”.

### Principles

Based on the findings of that mission, the Project’s approach to participation respects the following principles:

- Long-term participatory techniques should be used where possible, and should be applied at all stages of the project, and at all levels of activity;
- Participatory rural appraisal (PRA) should be used to plan activities;
- Participation in training needs assessment and implementation is essential;
- Participatory coordination mechanisms are key to project planning and intervention;
- Participatory Protected Area management and planning processes are key to integrating the objectives of the protected area and the local villages;
- Participatory decision making is key to success at all levels;
- The recognition that some stakeholders are ‘unwilling’ – notably private sector and some government line agencies. Hence their involvement is part of the Project objective, *not* a basis for implementing the project;
- Monitoring and evaluation should, to the extent possible, be participatory, and if so will contribute to stakeholder buy-in;

### Activities and Approaches

Based on these principles, the project participation strategy includes:

- Capacity building on participatory approaches for provincial officials;
- The use of transparent decision-making related to resource use at the village level;
- The regular use of stakeholder analysis, at all levels, to ensure the appropriate level of involvement of all stakeholders;
- Project activities to improve incomes and livelihoods, whilst conserving biodiversity. These should generate support for the project objectives from the local communities and from government decision-makers;
- A participatory monitoring programme, including at the village level, which will involve stakeholders in the collection and review of data and the full dissemination of the monitoring results.

### Mechanisms

Project mechanisms for assuring participation are:

- Inter-sectoral project steering committees and working groups at national and provincial levels, with appropriate involvement of government, experts and NGOs. These are to be used for decision-making, generating buy-in, coordination, and dissemination;
- The Technical Advisory Team (TAT) will continue to provide advice and support to the project;

- The ‘visioning’ process at the provincial level aims, in a participatory manner, to develop a common, consensual approach to development and biodiversity conservation across the Zone;
- At the community level, in the pilot villages, the project is to develop planning and decision-making mechanisms whereby local communities have control over their resource base and their future, yet have full technical support from government agencies and technical experts, and must respect national and local sustainable development targets. This participatory village planning, under Outcome 3, is the key to ensuring the full involvement of the local stakeholders, and hence a key to project success;
- The four ‘Participation houses’ – two fixed, two mobile – aim to raise awareness and create support for biodiversity conservation, partly by explaining the social and economic benefits that can flow from effective conservation.

## **Annex 2.5 Maps**

Map 1: Map of Iran showing protected areas and location of the Central Zagros Landscape Conservation Zone

Map 2: Map of Central Zagros Landscape Conservation Zone, showing main urban centres, administrative boundaries, surveyed villages and protected areas

*(See Separate Files)*



**Annex 2.6 Endorsement Letters and Co-Financing commitment letters**

*(See Separate PDF Files)*

## **Annex 2.7 Biodiversity in the Conservation Zone, and the management system**

### **Indicative list of wild relatives of commercial flora species**

Almond (*Amygdalus* sp)  
Apple (*Malus Orientalis*)  
Chick pea (*Cicer* spp)  
Fig (*Ficus* sp.)  
Grape (*Vitis Vinifera*)  
Pea vine (*Lathyrus* sp)  
Pistachio (*Pistacia Atlantica*, *P. Ichinjuk*)  
Pomegranate (*Punica granatum*)  
Tulip (*Tulipa* spp)  
Vetch pea (*Vicia* spp)  
Walnut (*Juglans regia*)  
Wheat (*Aegilops* sp)  
Maple (*Acer* sp.)  
Myrtle (*Myrtus Communis*)

### **List of key Mammal, Reptile and Bird species**

### 1- Mammals

Allactaga euphratica  
Apodemus sylvaticus  
Arvicola terrestris  
Calomyscus bailwardi  
Canis aureus  
Canis lupus  
Capra aegagrus  
Cricetulus migratorius  
Crocidura russula  
Dryomys nitedula  
Ellobius fuscocapillus  
Felis chaus  
Hemiechinus auritus  
Hyaena hyaena  
Hystrix indica  
Lepus capensis  
Lutra lutra  
Martes foina  
Meles meles  
Meriones persicus  
Microtus nivalis  
Microtus socialis  
Myotis blythi  
Nesokia indica  
Ochotona rufescens  
Ovis orientalis  
Paraechinus hypomelas  
Pipistrellus kuhil  
Pipistrellus pipistrellus  
Plecotus austriacus  
Rhinolophus euryale  
Rhinolophus euryale  
Rhinolophus ferrumequinum  
Rhinolophus mehelyi  
Sciurus anomalus  
Sus scrofa  
Ursus arctos  
Vulpes vulpes

### 2- Birds

Aegithalos caudatus  
Alectoris chukar  
Anas crecca  
Anas platyrhynchos  
Anas querquedula  
Apus apus  
Apus melba  
Aquila chrysaetos  
Ardea cinerea  
Caprimulgus europaeus  
Carpodacus erythrinus

Cettia cetti  
Charadrius dubius  
Ciconia ciconia  
Cinclus cinclus  
Columba livia  
Columba palumbus  
Coracias garrulus  
Corvus corax  
Corvus corone  
Corvus frugilegus  
Coturnix coturnix  
Cuculus canorus  
Delichon urbica  
Dendrocopos medius  
Dendrocopos syriacus  
Emberiza buchanani  
Emberiza cia  
Emberiza melanocphala  
Eremophila alpestris  
Falco pelegrinoides  
Falco subbuteo  
Falco tinnunculus  
Ficedula albicollis  
Fulica atra  
Galerida cristata  
Garrulus glandarius  
Gypaetus barbatus  
Gyps fulvus  
Hippolais sicterina  
Hippolais pallida  
Hieraaetus fasciatus  
Hirundo rupestris  
Hirundo rustica  
Irania gutturalis  
Lanius excubitor  
Lanius minor  
Lanius senator  
Melanocorypha bimaculata  
Merops apiaster  
Milvus migrans  
Monticola saxatilis  
Monticola solitarius  
Montifringilla nivalis  
Motacilla alba  
Motacilla cinerea  
Muscicapa striata  
Oenanthe finschii  
Oenanthe hispanica  
Oenanthe isabellina  
Oenanthe lugens  
Oenanthe xanthopyrma  
Otus scops

Panthera Pardus  
Parus caeruleus  
Parus lugubris  
Parus major  
Passer domesticus  
Petronia brachydactyla  
Petronia petronia  
Phoenicurus phoenicurus  
Phylloscopus neglectus

### 3- Reptiles

Ablepharus bivittatus  
Ablepharus pannonicus  
Coluber jugularis  
Coluber rovergieri  
Cyrtodactylus heterocercus  
Cyrtodactylus scaber  
Eivenis punctatolineata  
Eremias guttula  
Eryx miliaris  
Eumeces schneideri  
Hemidactylus persicus  
Hemidactylus turcicus  
Laudakia nupta  
Mabuya aurata  
Malpolon monspessulanus  
Mauremys caspica  
Natrix tessellata  
Ophiomorus persicus  
Ophisaurus apodus  
Ophisops elegans  
Psammopsis lineolatus  
Pseudocerastes persicus  
Scincus conirostris  
Spalerosophis diadema  
Spalerosophis microlepis  
Telescopus tessellatus  
Testudo graeca  
Trapelus agilis  
Tropiocolotos persicus  
Uromastix loricatus  
Vipera lebetina

### 4- Amphibian

Bufo surdus  
Bufo viridis  
Hyla savignyi  
Neurergus kaiseri  
Rana ridibunda

### 5- Fish

Barbus barbulus

Barbus grypsus  
Barbus lacerta  
Capoeta damascinus  
Capoeta macrolepis  
Capoeta trutta  
Cyprinion macrostomus  
Garra rufa  
Glyptothorax kurdistanica  
Nemacheilus tigris  
Onchorynchus mykiss  
Salmo trutta

## **Information on Indigenous uses of local plants in Zagros mountains**

### **A- Wood:** Mainly oak, nut and nettle tree

- 1- *Quercus Brantii* var. *persica*
- 2- *Q. Brantii* var. *belangeri*
- 3- *Q. libani* (In northern Zagros only)
- 4- *Q. infectoria* (In northern Zagros only)
- 5- *Juglans regia*
- 6- *Celtis caucasica*

Acorns are used traditionally for food and for making bread, and for medicinal purposes, and some uses suggest it could be used at industrial levels (eg. to clean waste water).

### **B- Fuel:** Shrubs and Bushes like *Astragalus* and others, as well as tree lops. The scope of this use has relatively decreased in comparison with the past.

### **C- Gum:**

The gum extracted from some plant species is used in production of cosmetics, medicines, and industrial glues (for gluing diamonds and other jewelry). Those are mostly exported to other countries.

- 1- *Ferula* spp.
- 2- *Pistachia Khinjuk* (used in chewing gums)
- 3- *P. atlantica* subsp. *kurdica* (used in chewing gums)
- 4- *Astragalus* spp; especially *A. gossypinus* (gum tragacanth)

The insects (Order *Psylloidea*) and the plant (*Astragalus*) are used in the production of a gum used for making confectionaries.

### **D- Food:**

- 1- *Pistachia Khinjuk* (Fruit)
- 2- *P. atlantica* subsp. *kurdica* (Fruit)
- 3- *Quercus Brantii* (Seeds)
- 4- *Q. libani* (Seeds)
- 5- *Q. infectoria* (Seeds)
- 6- *Punica granatum* (fruit is used through grafting)
- 7- *Rubus* sp. (Fruit)
- 8- *Allium hirtifolium* (endangered, but the bulbs still widely used)
- 9- *Vitis vinifera* (Fruit)
- 10- *Mentha* spp. (Leaves and young shoots)
- 11- *Crataegus* sp. (Fruit)
- 12- *Allium porrum* (Leaves)
- 13- *A. sativum* (Leaves and bulbs)
- 14- *A. akaka* (Leaves and bulbs)

## **Biodiversity Management and Protected Areas in the Conservation Zone**

Table 1: Protected areas of Kohkiloye and boyerahmad

Name	Area(ha)	Corresponding organization	Funded in	Dominant species	Protection status
Margon research station	1000	KANRRC	1991	Hordeum sp. Bromus tomentellus	Good
Emam zade jafar	2800	FRWO	1989	Grasses	Good
Mehraban	18	FRWO	1985	Grasses	Good
Yasoj shomal	200	FRWO	1993	Quercus persica, Pistacia atlantica	Good
istgahe jungali	1100	FRWO	1994	Quercus atlantica, Lonicera nummulariifolia, Acer monspessulanum	Good
sarabtave	5	FRWO	1993	Populus spp., Juglans regia	Good
Dehdasht	8	FRWO	1962	Olea sp.	Good
Dena	92962	DoE	1990	Quercus persica	Guard + no grazing
Khaeiz	34000	DoE	1998	Quercus persica, Astragalus sp.	Good
Kooh-e-Khiz & Sorkh	33385	DoE	1998	Quercus persica, Astragalus sp.	Good
Khamin	26000	DoE	1999		Good
Kooh-e-Deil	10381	DoE	1999		Good
Kooh-e-Denaye Sharghi	28202	DoE	1999		
Tang-e-Solak	2500	DoE	1999		Good

Table 2: Protected areas of Chaharmahal and Bakhtiari

Name	Area(ha)	Corresponding organization	Starting date	Dominant species	Protection status
Chartagh	410	FRWO	1983	Fraxinus excelsior	Fenced+guard
Pahnos	100	FRWO	1993	<i>Ulmus carpinifolia</i>	Fenced
Dorahan	400	FRWO	1992	<i>Juniperus excelsa</i> & <i>Pistacia atlantica</i>	Fenced
Moord	1	FRWO	1994	<i>Myrtus communis</i>	Fenced
Nazi	40	FRWO	2000	<i>Rhus coriaria</i>	Fenced
Polaki	80	FRWO	1985		Fenced
Mishan	49	FRWO	1985		Fenced
Tange kolore	126	FRWO	1985	Quercus persica	Fenced
Rahim abad	322	FRWO	1987		Fenced
Scoparia	116	FRWO	1994	<i>Amygdalus scoparia</i>	Fenced
Scoparia	16	FRWO	1005	<i>Amygdalus scoparia</i>	Fenced
Borojen	70	FRWO	No info	Perennial grasses	

Abasabad	2	FRWO	No info		Fenced
Rig	20	FRWO	No info		
Rig	No info		No info	FRWO	
Tang-e- Sayad	27000	DoE	1970/ 1995		Guard
Sabz Kooh	54000	DoE	1990		Guard
Helen	40000	DoE	1995		
Borojen	1	ANRRC	1983	Perennial grasses	Fenced

Table 3: Protected areas of Fars

Name	Area(ha)	Corresponding organization	Funded in	Dominant species	Protection status
Dehkohne Sepidan	546	F.R.W.O	1983	<i>Astragalus sp. Hordeum sp. Bromus tomentellus</i>	Fenced
Margon	10000	DoE	2001		4 guards
Manabetabiei Sepidan	45	F.R.W.O	1986	<i>Astragalus sp. Hordeum sp. Bromus tomentellus</i>	Fenced
Pashelaki dez kord Eghlid, Sedeh	800	F.R.W.O	1964	<i>Astragalus adscendens, As. Sp. Ho. Bulbosum</i>	Fenced
Jamal beig Eghlid	5000	F.R.W.O	1986	<i>Astragalus sp., Bromus tomentellus, Centaurea sp.</i>	Not very good
Jangle Marvdasht	10800	F.R.W.O	1974	<i>Pistacia atlantica, Astragalus sp., Artemisia aucheri, Ebenus stellata</i>	
Tang-e-Bostanak	15400	DoE	1995	<i>Pistacia atlantica, Amygdalus sp., Acer monspessulanum, Astragalus sp., Bromus tomentellus,</i>	Partly fenced
Abshar-e-Margoon	3500	DoE	1995		
Bahram-e-Goor	408000	DoE	1972		
Hormod	196200	DoE	1974		
Arjan	60000	DoE	1982		
Miyan Jangal-e Fasa	56500	DoE	1992		
Male Gale	52300	DoE	1995		
Seed collection Eghlid	900	F.R.W.O	1978	<i>Eurotia ceratoides, Bromus tomentellus, Stipa barbata</i>	Fenced
Basiran Eghlid	90000	DoE			

Table 4: National Parks

<b>Name</b>	<b>Area(ha)</b>	<b>Province</b>	<b>Date of approval</b>
Kolaghazy	51000	Isfahan	1995
Tang-e- Sayad	4400	Chaharmahal and Bakhtiari	1995
Bakhtegan	160000	Fars	1970
Bamou	48700	Fars	1994

Table 5. National Natural Monument

<b>Name</b>	<b>Area(ha)</b>	<b>Province</b>	<b>Date of approval</b>
Laleh Vajgoon	380	Chaharmahal and Bakhtiari	1996

Table 6: Wildlife Refuges

<b>Name</b>	<b>Area(ha)</b>	<b>Province</b>	<b>Date of approval</b>
Ghamishloo	90300	Isfahan	1995
Kolaghazy	3800	Isfahan	1995
Mooteh	200900	Isfahan	1990
Bakhtegan	200400	Fars	1995

*Source: DoE, Habitats and Protected Areas Bureau*



## **Annex 2.8 The Biodiversity Enterprise Grants Programme**

This Annex presents the initial concept of the BEGP. Detailed management guidelines and criteria for awarding grants will be developed prior to the project start and presented as part of the project document for CEO endorsement.

### Objectives

The principal objective of the Biodiversity Enterprise Grants Programmes (BEGP) is to stimulate and support private sector entrepreneurial initiatives that generate profit and contribute to biodiversity conservation.

In addition, it is expected that BEGP will:

- To bring international and national technical support to locally driven biodiversity conservation initiatives;
- To ensure the GEF project has an impact on biodiversity across the entire Conservation Zone;
- To introduce international best practices for small project management to the Central Zagros region, including decision-making and monitoring processes;

### Procedures

1. Detailed selection criteria will be prepared by the Biodiversity Enterprise Centre and the Technical Advisory Team (TAT) and approved by the Project Steering Committee;
2. Information on BEGP possibilities, procedures and criteria will be widely distributed in the four provinces participating in the project – at least through newspapers, internet, seminars and other media;
3. All requests for BEGP will initially be submitted to the Zagros Project Office (ZPO);
4. The ZPO staff will screen all requests for eligibility;
5. The Biodiversity Enterprise Centre will review eligible proposals and select the best proposals;
6. ZPO will prepare legal and contractual documents with the requesting organisation;
7. The TAT will monitor individual BEGP projects and will monitor the overall BEGP programme. The TAT will be responsible for issuing an overall BEGP progress report, addressing both financial and substantive issues, at least twice per year.

### Selection Criteria

As mentioned above, detailed selection criteria are to be developed by the Centre and TAT. These are to be based on the following:

- Clear Private Sector focus. The Grants should lead to a sustainable development of either individual enterprises, or groups of enterprises, or sub-sectors;
- Clear demonstration value. The Grant should lead to changes across the Conservation Zone, and not just support an individual entrepreneur;
- Clear Biodiversity focus. Although the BEGP grant may be part of a package of activities with broad socio-economic objectives, all GEF contribution must be fully focussed on biodiversity conservation;
- Geographical focus. All BEGP funded activities must take place within the Conservation Zone;
- Cost-effectiveness. All requests for BEGP grants must demonstrate that the objectives are to be met in the most cost-effective manner;

- Partnerships. All applicants for a BEGP grant must demonstrate that they are to contribute, in-kind or in-cash, to the project activities. The monetised value of this contribution is to be part of the request and is to be validated.

### Role of the Technical Advisory Team

The TAT will be partly responsible for preparing detailed selection criteria and selection process;

The TAT will be responsible for monitoring the implementation of BEGP-funded activities, including recommending corrective measures for activities deemed to be deviating from original objectives;

The TAT will be responsible for issuing an overall BEGP progress report, addressing both financial and substantive issues, at least twice per year.

## Annex 2.9 Key Ongoing Government Natural Resource Management Programmes in Conservation Zone

Project Title	Project Objectives/Description	Implementing Agency	Estimated Annual Budget in Conservation Zone
Protection and development of the Zagros forests programme	<p>The programme will be implemented in an area of 5 million hectares, which would include 11 provinces of the country. This programme contains the following 5 projects:</p> <ul style="list-style-type: none"> <li>• Alternate study and quality and quantity evaluation of forest resources;</li> <li>• Preparation of execution modalities;</li> <li>• The Forest revitalisation and development project;</li> <li>• The Monitoring and evaluation project ;</li> <li>• The Protection, and solution of social challenges project;;</li> </ul>	Forestry Bureau of FRWO, MoAJ	\$20 million
Miscellaneous projects supporting nomad community	<p>Including:</p> <ul style="list-style-type: none"> <li>• Production Enhancement</li> <li>• Land Levelling</li> <li>• Providing Irrigation Water</li> <li>• Fishery Sites</li> <li>• Bee keeping</li> <li>• Nurturing green house plants</li> <li>• Production of clean and healthy dairy by providing healthy facilities for production</li> </ul>	Nomadic Affairs Bureau, MoAJ	\$3 million
The Inventory and Data a Collection Program	This program is done every ten years to find the changes in the forest and show whether the situation in the forests has declined or improved.	Forestry Bureau of FRWO, MoAJ	\$330,000
The Program for Improving Grazing Management in Pastures	In this program it is accepted that grazing will happen but there needs to be an improvement in its management. This requires the number of animals to decrease so that there would be a balance between the capacity of forest and grazing.	Forestry Bureau of FRWO, MoAJ	\$1.4 million
Improvement of Traditional Exploitation of Non-Timber Forest Products	Considering that in forest and rangelands traditional exploitation is being implemented, the objective of this program is to improve the traditional exploitation methods of locals for producing medicinal or industrial products. These products can create a good income for locals. It is not possible to delete these tradition methods but they can be improved by different programs. And the	Forestry Bureau of FRWO, MoAJ	\$300,000

	traditional ways of exploitation can be controlled.		
The program of assessing the capacity for eco-tourism in recreational areas of Zagros Forests	Using natural talents of the forest. Seeking some methods in the forest that could create income. The plan should have an economic reason that can compensate reforestation expenses. The program of cultivating plant species (that produce wood and fruits and live a longer life) and developing tree plantation	Forestry Bureau of FRWO, MoAJ	No budget allocated.
The Program for grazing management in dense forests with low ecological capacity	Details to be decided	Forestry Bureau of FRWO, MoAJ	No separate budget line. This program is part of The Program for Improving Grazing Management in Pastures
The program for securing water and reserving Precipitations	To secure water and reserves rainfalls in sources and to conserve the soil in upstreams.	Watershed Unit, FRWO, MoAJ	No budget allocated yet (it is likely to be part of a bigger project).
The program for securing fossil fuel in non-remote villages and firewood fuel for remote villages	Reduction in firewood fuel consumption of people and encouraging them to use fossil fuel (which is done mainly through awareness raising and education).		\$12,197.

## **Annex 2.10-Detailed Problem and Solution Analysis for the Management of the Central Zagros Landscape Conservation Zone**

### **1. Introduction**

There are two main direct *threats* to biodiversity in the conservation Zone: unsustainable agriculture and over-harvesting of biodiversity products. In addition, there are many smaller and localised direct threats. The *root causes* behind these threats, and their inter-relationships, are manifold and complex. They originate at all levels of society – notably within national, provincial and village-level decision making. They also originate from within many economic sectors.

The *Baseline* strategy to conserve biodiversity in the Conservation Zone is based on two pillars: strengthening the protected area network in the Conservation Zone and; mainstreaming biodiversity conservation into the agriculture, rangelands and forestry sectors.

There are many *barriers* to implementing this baseline strategy, notably to the latter pillar of mainstreaming biodiversity into agriculture, rangelands and forestry sectors. The Alternative project, with GEF support, will help overcome these barriers.

In addition, there are some *gaps and missed opportunities* in the baseline strategy, notably opportunities for cooperation with water and tourism sectors. The Alternative project, with GEF support, will help fill these gaps and grasp these opportunities.

### **2. Threats**

Biodiversity in the Conservation Zone faces two major categories of threat: conversion of biodiversity rich land to other uses and unsustainable harvesting of biodiversity products. These are acting alone and in combination to lead to drastic and sometime irreversible degradation of biodiversity. In some places the quality of the land is also degrading irreversibly. In addition, the resulting fragmentation of biodiversity habitats makes it increasingly difficult for larger mammal species – notably bears and wolves - to find a sufficiently large contiguous habitat. Finally, a series of smaller, localised threats including pollution, mining and alien invasive species exacerbate the situation at some sites.

Land conversion. The land is very mountainous. Every available spot of flat or low-sloping land is converted to agriculture: rain-fed wheat or in some cases irrigated rice and other crops. To convert the land, the shrubs and grasses between the trees are cleared, but *usually* most of the trees are left standing. Given that the soil is very fragile and thin, the fields are only productive for 2-3 years. After this period, the field is left fallow or completely abandoned, and the farmer moves on to a new field. However, in many cases it does not regenerate, largely due to the fact that the land continues to be heavily grazed and no plants are allowed to grow. Slowly, the land is destroyed, and the endpoint is old trees interspersed across a desert landscape. These unsustainable practices are very common outside of the protected areas, and are becoming increasingly common inside protected areas. It is estimated that during the past 40-50 years about 50% of forested areas in the Zagros mountains have entered into this downward cycle. Only about 10% of this converted land is under agricultural use at present.

In addition, near to urban areas, agricultural land is being converted to urban land. This, in turn, leads to a demand for new agricultural land, and more forests and pastures are converted to agriculture.

Unsustainable harvesting of biodiversity products. This includes over-grazing, over-collecting of wood and non-timber forest products, and hunting. It is estimated that there are up to six times more livestock in the Conservation Zone than can be sustainably carried with present grazing practices. The livestock, principally

sheep and goats, cause damage to pasture lands stopping re-generation. In combination with the land conversion (previous section), they inhibit the growth of new trees, thereby condemning the forests to a slow decline. Few figures exist regarding hunting levels, as it is largely illegal and very difficult to collect reliable data. Anecdotal information suggests that the level of hunting is as high as possible – i.e. every encounter with an animal or bird is considered an hunting opportunity. The very high number of guns means that all animals in accessible places are hunted. This has had a devastating impact on animal numbers, and only the most remote populations have survived.

Woodfuel collection is also contributing to decline of the ecosystem. Although this has declined greatly in recent years due to government-sponsored programmes, it remains a significant threat at some sites. Finally, none-wood forest product collection<sup>28</sup> is a threat at some sites. In general, the plants are collected for local use, but the level of harvesting is damaging the overall health of the population. Species collected include mountain leek, acanthus, wild garlic, shallot, rhubarb, peppermint, wormseed, rose, thyme, mushrooms, acorns, marjoram, zarabi and brinjal.

### **3. Root causes**

The causes underlying the threats are complex and site specific. There is no simple linear relationship between causes and threats; rather there are many complex relationships and inter-relationships that may act differently at different sites. It is also important to note that the causes to the threats may result from actions and decisions taken at many different geographical levels.

#### Root causes – national level

Many of the causes of biodiversity loss can be traced back to national policy and programmes. For millennia, the nomads were the guardians of nature as they depended on it for their survival. They also could claim to ‘own’ the mountains. In the early 1960s, misconceived programmes to nationalise land caused a breakdown in the traditional nomadic management systems, and provided no alternative management system. In recent years there have been some efforts to reverse these moves, for example:

- Whereas forested land cannot be privatised, agricultural land now can. However, unless wisely managed, this can provide an incentive to villagers to convert forest to unsustainable agriculture;
- For many years there was no system of tenure over pasture land. This led to a classic tragedy of the commons in many places. The government is presently experimenting with land tenure systems giving families the use of the pasture land for thirty years. In most cases, this does not provide sufficient incentive to conserve the land. However, thirty years is sufficient for mismanagement practices to lead to irreversible land damage, and the monitoring procedure is inadequate to find and correct such practices before the thirty years pass. Moreover, families may have forgotten some of their traditional techniques for land management.

Other national policies have had negative impacts. For example, the highly subsidised wheat price provides an incentive to villagers to grow wheat, even on inappropriate land. Water is undervalued, meaning that the water-catchment function is undervalued. National policy focuses on large-scale engineering solutions to water management, and does not sufficiently consider demand side management or catchment protection. Also, real estate speculation is unmanaged; encouraging large-scale conversions of agricultural land to residential land, and so creating an increased demand for agricultural land.

Proposed project solution Under the proposed Outcome 1, the project will establish working groups at national level to investigate concerned policy and legislation and recommend changes. The project will also raise awareness and advocate on the importance of conserving biodiversity, in monetary and other terms. The project will also look to strengthen partnerships at national level, to develop consensus on an approach. The

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<sup>28</sup> This analysis also applies to biodiversity products harvested from the pasture lands.

project will ensure that lessons learnt from the field, both in the project and elsewhere, are fed back into the national policy processes and decisions. The project will work with ongoing UNDP initiatives to develop capacity for SEA, ensuring that SEA accounts for biodiversity and conditions in the Conservation Zone.

#### Root causes – Provincial and Proposed Conservation Zone level

The overall development process. Notably, population growth, poverty and new opportunities to make a profit have combined to increase the pressure on natural resources and biodiversity. The population in the Zagros region has increased at least four-fold since the 1960s. There has been a similar increase in the number of livestock and the demand for food, wood and forest products. Hence, it is unlikely that traditional management practices would have remained sustainable. However, as explained previously, the traditional management systems and slowly disappeared since the 1960s, with no effective replacement. The impacts of increased population can be mitigated and even reversed by technological improvements, however there have been few efforts to introduce such new pastoral, forestry or agricultural technologies.

The Conservation Zone is one of the poorest parts of Iran, and has been a temporary home for many refugees from neighbouring countries. This is reflected in the socio-economic standards – levels of literacy, healthcare etc. are well below the national average. This poverty tends to mean the population is less able to adapt or to adopt new approaches, and the inhabitants take natural resource use decisions based on a short-term horizon.

In recent years, given high meat and falsely high cereal prices, it has become possible for rural people to increase profits rather quickly, by rapidly increasing livestock numbers and agricultural production to unsustainable levels. These activities are largely un-regulated, neither by government nor by traditional practices, and the low level of land tenure means the incentives to make as much rapid profit as possible is very large.

Another root cause is the generally low value given to biodiversity and natural resources. For example, natural resources provide the livelihood for at least 70% of the population in the Conservation Zone but there have been few attempts to develop comprehensive programmes to manage resource use. A second example relates to water management.

Another root cause at this level is the uncoordinated approach to development. Each agency and each province acts alone to achieve its own goals, which may often conflict or not fully correspond to the goals of other agencies and provinces. Although the importance of the Zagros as a unique and rich landscape is recognised at all levels and in all sectors, and hence there are many financial mechanisms available for Zagros development, there is no single coherent vision for development of the region. Biodiversity, which is low on the agenda of most government agencies, suffers from this incoherence and these conflicts.

Proposed project solution Under the proposed Outcome 2, the project, with the support of several working groups will influence the overall development process and the natural resource sectors. A new development vision for the provinces will be developed. Again, awareness will be raised, and advocacy undertaken to increase appreciation of the value of biodiversity. The two Mountain Biodiversity Resource Centres (MBRC) will be key to these. Strengthening overall and specific capacity for participatory planning and management will also be a key component.

Key tools to integrate biodiversity into forestry, rangelands and agriculture sectoral development will be developed. Notably, each relevant government programme and project in these sectors will be reviewed and changes instigated. Also, the Biodiversity Enterprise Facility and other technical support mechanisms (including the Biodiversity Enterprise Grant Programme) will help develop improved livelihoods, and sustainable alternative practices and technologies.

Conservation planning and management will also be strengthened through Outcome 2, notably by improving Zone-wide planning, and capacity to mobilise and manage finances, and strengthening capacity of key protected areas.

#### Root causes – village and community level

Most villages continue to practice livelihoods based on practices developed centuries ago. Forests are cleared, wheat and barley are cultivated, livestock graze the old cereal fields and pasture lands. Livestock are generally taken to the highlands in summer, and brought down to the villages in winter, where their diet is ameliorated with barley. People's diets are supplemented through hunting and the collection of plants and other forest products. Wood is collected for construction and fuel.

The breakdown of community and tribal management systems in recent decades has meant that there is little regulation. In the past, tribes were broken into clans, and systemised clan pressure forced individuals to respect natural resources or face exclusion. For example, land ownership was clear, and grazing seasons respected. Now, the most common rule is *first-come, first served*, accompanied by *take as much as possible, or somebody else will take it*. For example, early in the summer grazing season, there is a strong incentive to move livestock early to the high grazing grounds and so *claim* the best lands. This is a strong incentive for migration to take place before the pastures have had the opportunity to grow after the winter.

Sedentarisation and modernisation have increased the opportunities available to nomads, whilst at the same time causing a dissociation between the nomads and their former land. Nomads are now able to keep livestock and, for example, keep orchards and grow bees. With access to markets, nomads now have a clear incentive to keep as many livestock as possible. Carrying capacities are unknown or unappreciated.

Unfortunately, new technologies (such as motorised vehicles and freely available guns) mean that the amount of harvesting each rural dweller can do in one season has greatly increased. Combined with population pressure, the impact on natural resources and biodiversity has been dramatic.

On the other hand, there has been no incentive to introduce new technologies and practices that may improve livelihoods without having an impact on biodiversity. Improved forestry, pasturage or agricultural technologies could do this, as could an introduction to improved livelihoods such as tourism, handicraft, or development food processing industries.

Overall, the pressures and incentives to harvest, to convert land and to collect biodiversity products have grown, whilst at the same time the auto-regulation and traditional management systems disappeared. The result is the systematic over-harvesting of products.

Proposed project solution Under the proposed Outcome 3, participatory planning and management of resource use will be developed in 8 representative villages. Villages will drive their own development and use of biodiversity. This will build on the existing in-depth knowledge that villagers have of their natural resource base. This will be complemented by awareness raising and development of the understanding of biodiversity conservation. Villagers will have the incentive, knowledge and confidence to use biodiversity sustainably. The technical, business and financial support mechanisms from Outcome 2 will contribute to the implementation of the village level participatory plans. Improved livelihoods and sustainable resource use will be at the heart of the participatory village plans.

#### **4. Baseline Strategy, Barriers to its Implementation, and Proposed Project Solution to the Barriers**

##### National Level



At the national level, government policy is increasingly committed to environmental protection and to biodiversity conservation. However, in practice, it is very unlikely that there will be any sizeable impact on the rate of biodiversity loss. Proposed solution Awareness raising and partnership building in Outcome 1 will make government more committed, and policy more meaningful.

The Department of Environment is committed to a holistic approach to biodiversity conservation and sustainable utilisation. However, in the baseline, it is unable to influence society and unable to influence the economic sectors, such as forestry, rangelands, agriculture, water and tourism. As a result, in the baseline, it will focus its efforts on managing its protected areas, with some success, at least in the initial years. The EIA Law, under preparation, focuses on urban and industrial projects, and is not suitable for influencing natural resource projects and programmes in rural areas. In terms of financing, an Environmental Fund is to be established under the NDP, however the focus is on the industrial environment. Whereas the overall budget of DoE for biodiversity conservation continues to grow, this will continue to be small in relation to the true value of biodiversity, or of the funds needed to conserve biodiversity. Proposed solution DoE will be strengthened through project. Outcome 1 will build capacity to develop partnerships. DoE will have tools to mainstream biodiversity. Outcomes 1 and 2 will complement ongoing work to adapt SEA Law to rural areas. Outcome 1 should help access Environmental Fund for biodiversity.

In the development phase of this project, at least one hundred national programmes and projects that will or that may have an impact on biodiversity in the Conservation Zone were identified. These range from very small, specialised research projects to large-scale highly financed nation-wide projects. These range from projects that directly negatively impact biodiversity, to projects that if finely adapted could have a positive impact on biodiversity, whilst still achieving the initial objectives. In the baseline, at best, policies surrounding the above-mentioned programmes and projects state the importance of biodiversity. In the baseline, however, lack of coordination and technical capacity will combine to ensure that the projects are implemented in a sectoral manner without true attention being paid to biodiversity. For example, in the forestry sector, the focus will remain on planting and protecting trees. Non-native species may be used. In the rangelands sector, little attention will be paid to carrying capacities; the emphasis will be on increasing production. The existing approach to land tenure on rangelands will be replicated, with the associated deterioration of the rangelands. For example, the programme to provide fossil fuel in order to reduce fuel wood collection will continue to be implemented in a random manner, and not provided optimum support to biodiversity conservation. Proposed solution Through Outcome 1 and Outcome 2, project will review all key national programmes and policies, and recommend changes, and develop standards and guidelines, and provide training. DoE capacity to build partnership and so influence the concerned agencies will be developed.

#### Conservation Zone and Provincial Level Baseline

Development across the Conservation Zone is at present undertaken in an uncoordinated manner, both across provinces and across sectors. Accordingly, the strongest agencies and provinces implement their work-programmes in the most efficient manner possible, with little regard to the external impacts and missed external opportunities. There is no coherent overall vision for the Zone or for the Zagros mountains. In the baseline, the CCDCZ, if it becomes effective, will support isolated infrastructure projects, which stimulate development locally but do not have a broad impact. Coordination between provinces will remain limited to isolated examples and personal relations. Proposed solution Project takes a Zone wide approach to ensure inter-provincial coordination. Outcome 2 aims to build understanding and consensus across sectors, and develop specific tools and mechanisms for this. Outcome 2 will develop a new vision for the Zone, with biodiversity at its heart.

As with the national DoE, the Provincial DoEs remain a weak actor in the baseline, unable to engage on equal terms with other government agencies. Hence DoE will not be able to significantly influence the work-programmes and practices in the main economic-sectors. DoE will, however, continue to develop and

implement Management Plans for its Protected Areas. These will experience some success. However in the baseline, technical capacity at provincial and at protected area level remains weak. Notably, there is very little capacity for financial planning and management, and hence little capacity to generate sizeable additional finances to conservation of the protected areas. Proposed solution Outcome 2 will provide significant capacity building for provincial DoE. It will have training and mechanisms in order to mainstream biodiversity into sectors, and to manage its protected areas more effectively.

In the Agriculture, Rangelands and Forests sectors, baseline development consists largely of a package of governmental programmes to manage and conserve natural resources (see Annex 2.9). The FRWO implements many projects to conserve natural resource. However, the focus is on the trees, and often the undergrowth is neglected and no new trees can grow. Biodiversity is depleted. Moreover, away from the sites that can be easily inspected by FRWO, unsustainable wood collection continues unabated and trees continue to disappear. Efforts at land-use planning are limited to the level of the individual land-owner. Proposed solution At the Zone level, the Working Group and technical support will develop tools and recommendations for ensuring FRWO activities contribute optimally to biodiversity conservation.

The FRWO will continue its programme to give 30-year user rights to rangelands managers, although the success of this programme has been shown to be limited to areas with low population pressure. In Isfahan province, this programme has been underway for 15 years, and less than 10% of plans are considered a success. In fact, with existing practices, livestock numbers are far above the estimated carrying capacity (some estimates put the figure at six time sustainable levels), and are still growing. In the baseline, there are no measures to reverse this trend. Proposed solution Measures to lower the number of free-range livestock will be developed, through Outcomes 2 and 3 (i.e. improved grazing technologies). Also, improved livelihoods should reduce the number of people dependent on grazing.

FRWO will continue to be a huge employer throughout the Conservation Zone, helping to overcome unemployment challenges. However, in the baseline, opportunities to employ this staff in biodiversity friendly activities will be missed. Proposed solution Through Outcome 2, and the Working Group, mechanisms to exploit this opportunity will be designed and realised.

The private sector will continue to grow in importance, albeit slowly, in the baseline. This is particularly true for the medium sized enterprises and the increasing number of denationalised industries. However, the small-scale private sector will only develop very slowly. Overall, the private sector will pay little attention to environment or biodiversity conservation. Proposed solution The BEC will address this issue directly.

On the positive side, there is a growing awareness for environmental and biodiversity protection particularly amongst the youth in urban areas. This is a result of national campaigns, and of a growing understanding of the international situation and experience. This will become an increasingly positive force for change in some areas. There is notably increasing recognition of the need to conserve land and water resources in Iran.

#### Local Level Baseline

Small village communities will continue to move along the development continuum, with an increasing number of people slowly moving out of the natural resources sector, either moving to local cities for other work, or being employed in local offices or industrial enterprises. The process is slow and disjointed, and in the meantime there is a decreasing respect for the natural resource base and for sustainable management amongst those who continue to exploit natural resources. Proposed solution Awareness raising, through project activities and participation houses (in Outcome 3) will help overcome this.

Small village communities will continue to have conflicts with the managers of protected areas, as they will still not understand the role of the protected areas, and in many cases have no alternative. There will continue

to be a lack of trust of government agencies. Likewise, local communities will continue to have little respect for FRWO sponsored programmes to protect catchments. Local communities will avoid harvesting these areas only out of fear of getting caught. Where there is little fear of getting caught (i.e. in protected areas off the main roads) and when costs of getting caught are less than the benefits of illegally taking wood (i.e. when the family is freezing and there is no alternative fuel), the illegal harvesting will continue. Proposed solution The participatory planning and plans (Outcome 3), which are village driven, and based on local knowledge, will change the relationships between people and government, to one of consensus. Specific training on participatory techniques and conflict resolution for provincial officials will complement.

In other cases, short-term profit will continue to be the driving force, in the absence of sustainable management regimes or appropriate incentive structure. Proposed solution Awareness raising, revised incentive structures (through then plans and from peers), and increased information and understanding of sustainability will help overcome this barrier (Outcome 3).

The poorer villages will continue to be isolated from the development process, and continue to feel 'dependent' on government for solutions to their problems. Private enterprise will continue to be restricted to small percentages of the population, with few of the benefits flowing to poor people. Proposed solution The BEC, and the BEGP will directly address this, first in the demonstration villages.

Some isolated initiatives are underway in the baseline, but are not very effective. For example, nomads are allowed a fixed number of sheep. If they are caught with too many sheep, they can be fined. However, the official fine is considered too high and very rarely enforced. Also, MoAJ is developing forest management plans for each small area or *serie*. In some cases in the Zagros region, combined forestry and agricultural plans are developed. These are an excellent opportunity for mainstreaming biodiversity, but in the baseline the intersectoral cooperation and technical capacity are too low for the mainstreaming to happen. Proposed solution The participatory plans and planning will address these defects (Outcome 3). Also, technical support through Zone wide mechanisms (Outcome 2) will support improvements.

On the positive side, the increasing attention to participatory development in Iran, as well as an overall growing knowledge of biodiversity, will combine to provide a small brake on some negative practices. Surveys in the Project development phase illustrated strongly that most villagers feel some of their neighbours are harvesting too much – a sign of high awareness. The increasing capacity of the Islamic Councils will provide a mechanism for communication with Protected Area staff, and a mechanism for managing natural resources, both of which should facilitate efforts to ensure sustainable use of resources. The Islamic Councils may also be in a position to ensure that some of the benefits of biodiversity conservation flow to local villages.

## **5. Gaps and Missed Opportunities in the Baseline**

The present baseline strategy is incomplete. Notably, it fails to exploit certain opportunities for mainstreaming biodiversity into development of the water and tourism sector. The proposed alternative Project, with GEF support, will ensure that these opportunities are fully exploited.

In the baseline water sector, the emphasis will continue to be on physical infrastructure and on effectively channelling water from mountains to cities and plains. Little attention will be paid to catchment protection, demand side management or conserving groundwater supplies. On the positive side, the NDP does allow water resource managers to transfer a percentage of water user fees to upstream natural resource managers in order to protect the watershed. In the baseline, this is unlikely to happen to a significant extent, and any impact on biodiversity will be coincidental and limited.

Proposed solution Under Outcome 2, biodiversity and water sectors will be institutionally linked, studies will be performed, international best practices assessed. Proposals and mechanisms for joining objectives and

workprogrammes will be developed. Mechanisms to channel funding from water sector to biodiversity ecosystem protection will be explored and developed.

In the baseline tourism sector, the recently passed national law emphasises the importance of collaborating with DoE. This opens an opportunity for eco-tourism, but not one that is likely to be operationalised in the baseline. In the baseline Tourism Sector, both domestic and international tourism to the Zone are a missed opportunity for biodiversity conservation. For example, it is currently estimated that one small protected area (Tang-e-Bostanak or 'Lost Paradise') receives 200,000 visitors/year (mostly day-trippers). These visitors come to enjoy the nature and the scenery, which, in the baseline, they continue to quickly destroy as their activities are largely un-regulated. This number of visitors represents a considerable potential source of finance for natural resource managers, although in the baseline this source remains completely unexploited – no payments are made by the visitors to biodiversity conservation. In the baseline, this number of visitors to biodiversity spots is set to continue growing, and this activity is to continue having a negative impact on the biodiversity and natural resources. In the baseline, there will be no efforts to combine nature tourism with environmental education, and no efforts to formalise the present hunting system and generate associated revenue to biodiversity managers.

#### Proposed solution

Under Outcome 2, tourism sector and biodiversity sector will work together to develop tools and plans for developing eco-tourism, with positive spin-offs for both sectors. The MBRC will become a driving force for eco-tourism. Awareness raising will increase the demand for eco-tourism. Mechanism to ensure that eco-tourism is an incentive for conservation, and that funds generated by eco-tourism go to local communities will be developed. The opportunity of international tourism will also be explored.

Under Outcome 2 (the BEF) and Outcome 3, pilot private sector eco-tourism livelihood schemes will be developed and tested. Investments leading to eco-tourism, economic benefits to villagers, and incentives to conserve the ecosystem, will be at the core of the management plans developed in Outcome 3.

## Annex 2.11: Supporting Documentation

### **I Key Documentation Prepared during the Project Development Phase includes:**

- Rapid Appraisal Reports- Selection of an Appropriate Project Intervention Area, Conservation and Sustainable Use of Biological Diversity Project in the Central Zagros Mountains Ecosystems (Prepared by National Team, March-April 2003)- 62 pages;
- Participatory Approaches to Biodiversity Conservation Planning in the Central Zagros Ecosystem, Iran (Prepared by Stephan Fuller, August 2003)- 25 pages;
- In-depth assessment at community level- Monitoring of Local Communities and the Evaluation of Rural and Urban Participation (Prepared by Mostafa Panahi, February 2004)- 60 pages;
- In-depth assessment at PIA (Conservation Zone) level (Prepared by Mehdi Farahpour, Autumn 2003)- 20 pages;
- In-depth assessment at National Level – Detailed Report at the National Level (Prepared by Farhad Sadeghi Rad, Autumn 2003)- 100 pages;
- Strategy for Alternative Livelihoods Development (Prepared by Stephan Fuller, January 2004)- 55 pages;
- Sustainable Finance Strategy for Conservation of Biodiversity in Central Zagros Mountain Ecosystems, Iran (Prepared by Dirk Kloss, March 2004)- 40 pages;
- Co-financing Discussion Paper (Prepared by Dennis Fenton, ITL, March 2004)- 4 pages;
- NGO database- Report of the NGO activities in Conservation Zone (available in Farsi)- 25 pages.

## **Annex 2.11 Supporting Documentation - Summaries of Key Technical Reports prepared during the PDF B**

### “In-Depth Study at Community level- Monitoring of Local Communities and the Evaluation of Rural and Urban Participation”

This study was prepared as part of the Second Phase of the Execution Studies, i.e. in-depth appraisal of the proposed Project Zone. An in-depth review of generalities and socio-economic realities governing the various national, provincial and local stages, the pre-condition and preliminaries for entry into the next phase of steps, has been envisaged.

In accordance, the study has been envisaged taking into account the subject of the local communities living in the boundaries under consideration, and dealing with them. On the basis of this, a national team has studied the selected communities in the region from the socio-economic angle, and having gathered the goal-oriented data in this matter, prepared a report with the subject of assessing the participation of the above communities in management plans. Therefore, the study activities in this document mainly show a “snapshot” picture of the characteristic of the root causes and the threats confronting the existing biodiversity in Conservation Zone. The body of this report addresses the main socio-economic characteristics and their problems and assessment, the influence of socio-economic factors on the PAs, social ideas for diminishing of biodiversity threats, social ideas for future participation processes and social ideas for alternative livelihoods.

Selected sites (sample representatives of the society) for the study consisted of three rural and tribal communities which were selected under some considerations and qualitative and subjective norms planned for the proper process of decision making. These three communities included the semi-urban community of See Sakht in the Kohkiluyehh & Boyerahmad province and the rural communities in the villages of Darreh Yas and Ma’dan, situated in the Chaharmahal & Bakhtiari province. After studying the general geographical and socio-economic conditions of the three communities, since at the community-level assessment, stakeholders analysis is considered to be the basic job, special questionnaires were designed (in view of the goals of the project) to be asked in all three communities. By receiving the right replies, detailed directions for designing and planning of the executive stages were formed and all conclusions obtained for each one of the three targeted communities are presented separately in the report. As a result a list of the beneficiary persons was identified whom consider themselves to be affected by the project or beneficiaries. The first group included the exploiters who, in accordance with tradition and custom, have been making use of the natural resources available in the region and have been earning their livelihood through animal husbandry, agriculture and/or related activities (such as gardens and orchards, bee-keeping, etc); and thus, their activities directly or indirectly influence various parts of the biodiversity. The second group also included that part of the players and institutions, which have been engaged in activities in the public sector, and have been in charge of various facets of administrative, cultural and political managements in the area.

To study the main socio-economic characteristics of the area, again a special section of questionnaires were developed and relevant data were gathered for agricultural and animal husbandry productions, the quality and quantity of utilisation and exploitation of natural resources, as well as the appraisal of grazing and agricultural and natural resources exploitation. The conclusions of the study are presented in the report after a primary analysis. In addition a general analysis of socio-economic problems and their assessment was also conducted during the study.

Results of the study of biodiversity of Flora and Fauna show that people who have less contact with the natural resources due to their occupations are less informed on the issue, and this has been reflected in their answers. In studying the influence of socio-economic factors on the Protected Areas it was tried to on one hand find appropriate answers for the factors and reasons of unsustainable harvest of the natural resources

and the biodiversity, through the words of the local inhabitants of the societies under study, and on the other hand describe and analyse the economic, social, cultural and/or political motives behind these factors.

In order to diminish the biodiversity threats, and correct the managerial methods of exploitation of the resources, and also to ensure success in the protection of biodiversity programmes, it was very important to be aware of the ideas of the local community. Therefore, one of the objectives of the study was to find solutions rooted in the ideas expressed by the stakeholder local communities that would be followed with the assistance of the community members. In this analysis, the research consultants came to the conclusion that a large proportion of the respondents were not familiar with biodiversity, or their knowledge was limited to very tiny concepts of the issue of biodiversity.

At the end, and on the basis of what is mentioned within the study, a number of themes and conclusions are presented. Some of these conclusions include

- Design, development and implementation of appropriate communication tools for interaction with the residents of the communities under consideration is a definite need that must be included in the framework of the planned activities;
- The connotation of the term “participation” and its various dimensions in the processes of decision-making and management concerning the protection and sustained utilisation of the biodiversity resources have yet to be studied for many of the residents;
- The communities studied, like other rural and urban societies in Iran, according to the requirements and macro trends in the movement of development affairs are rapidly experiencing the structural upheavals;
- Most respondents, whether those in the town or those in the two rural communities, have felt the need for the change of the traditional ways of production in the matters of animal husbandry and agriculture;
- The cultural and social variety governing the area is a pointer towards the need for broadening the scope of field studies, and the management plans need to be clearly reflected and Economic poverty and deprivations resulting from lack of development has created a good ground for the activation of plans for substitute earnings.

### “In-Depth Study at the Proposed Project Intervention Area”

This report focuses on the general situation across the proposed Project Zone. A national group of qualified experts in fields of Rangelands Management, Forest Management, Soil and Wildlife and NGO experts collected the information that was mainly in domains of biodiversity and different components of the Zagros mountainous ecosystem.

The report gives detailed information of biodiversity condition in Conservation Zone, including land and its management, flora and fauna, protection of biodiversity and awareness of biodiversity in the Conservation Zone. It also explains the socio-economic situation (i.e. population, economic production, livestock, fuel-wood and hunting and unemployment levels). In addition, the report gives an over view of stakeholders (NGOs, villagers, decision makers, etc.) analysis at both national and provincial level.

The Project Zone is located in four provinces: Isfahan, Chaharmahal, Kohkiluyeh & Boyerahmad, and Fars. Not all of the provinces are completely included; Semrom from Isfahan, Eghlid, and Marvdasht from Fars, and Boyerahmad from Kohkiluyeh and Boyerahmad are districts which are inside the border of the Zone. Regarding biodiversity and its protection the total area of rangelands and forests and their vegetation types in the zone were identified. Protected areas belongs to three organizations, ignoring military places such as barracks, Forest, Range and Watershed Organization of Iran (FRWO), Agriculture and Natural Resources Research Centers (ANRRC), and Department of Environment (DoE). In some cases FRWO and DoE are working together. There are 12 protected areas in Fars locating adjacent or within the border of the Zone. In case of plant species it should be said that as protected area is extended the more species will show up, due to

biophysical differences. For animal species plenty of the species could be protected and seen in relatively small areas protected by DoE.

Biodiversity is a notion that is understood by educated people in the fields of natural resources, agriculture and environment. Biodiversity, when it is at odd with the benefit of local people, is removed even though they are aware of the importance of it. Pastoralists are armed and they use the gun when their life is in danger. On the other hand trees are cut for fuel and land clearing and their roots are damaged by plowing. So it could be assumed that biodiversity is not always respected even by the people whose life is tied to it.

Considering socio- economic situation in the Zone, demographic analysis in the report show that population of the main cities in the Zone has increased. Agriculture is still the main stay of the economy the Zone. Extensive grazing is the widest agricultural activity in the Zone, on which, detailed information is given.

A considerable amount of Iranian workers, working in Arabic countries such as Kuwait, money were flowing to the Zone before Iraq-Kuwait war. The money however was mostly spent in housing industry. After war the amount of money has drastically declined, nearly to one third. Detailed information on the total number of livestock and owners are given in the report.

Fuel-wood and hunting and Unemployment and under employment are also some of the main points indicated in the study.

Ghashghaei, Jarghoye and Bakhtiari are three major nomadic tribes of moving through the Zone. There are some provincial tribes that are briefly described. Pastoralism and agro-pastoralism are the most important occupations of the tribe. Study show women are very active in the nomadic society. Herding, milking, milk processing, Carpet making and netting (to make tents) are duty of the women. Meat, milk and its processed materials, and wool are the most usual production of the system. Settlement of the nomads in specified settlement spots is a very important national program of Nomad Organization of Iran.

Information on major land uses show that nearly 87% of the area is rangelands and forests controls, managed, and planned by governmental institutions; and extensive grazing is the most agricultural practice in the area. Range, forest, livestock, and wildlife; therefore, are high priorities of natural resources management. Preparation of annul programs including the kind, size, and budget of national and provincial project is the task of provincial offices of each relevant organization. Also decisions on rehabilitation and improvement of national lands are taken at two levels i.e. national and provincial.

When the proposal of any alternative land uses are investigated and approved by provincial officials of the institutions it is sent to their offices in Tehran where the final decision is taken. Therefore, the systems of relevant institutions are very centralized, top-down, so contribution of higher layers of the institutes to any decisions on planning new approaches is very essential. Parliament members of the provinces located in central Zagros have decided to play a stronger role in improvement and rehabilitation of the natural resources. To achieve this goal a Coordinating Committee for the Development of the Central Zagros is formed.

The report ends with the consultant's suggestions regarding the Conservation Zone and its boundaries. Due to coordination difficulties on one hand and relative ecological uniformity of the zone on the other, concentration of activities in one province is suggested. Chaharmahal is an instance. Its biodiversity richness, natural recreation sites, political supports, durable wetlands are of many advantages this province have. If the border is going to remain at this size it is recommended that the Bazoft valley located on west border of Chaharmahal also be added in the Zone and also planning could accomplish through sequential bottom-up and top-down negotiations.

“Detailed Report at the National Level”



This Report is one of the three parts being examined to clarify the baseline. It explains the actions and reactions between human beings and biodiversity of the Zagros Mountains and discusses the key stakeholder groups at the national level. It summarizes the findings of the survey. The document consists of three parts. The first presents the ministries, organizations and the national and governmental representative offices whose activities in a way influence the biodiversity of the Zagros Mountains; then proceeds with a study of the units, their national and macro policies concerning the biodiversity of the region, with their summary explanation. The third section presents a short note on the financial decision-making processes at national level.

For the purpose of this study, various ministries, organisations and national and governmental representative offices were approached in order to collect certain data regarding different activities within the Zagros regions. Information was also obtained by interviewing various individuals and units in organisations; as well as by reviewing required and available data and literature in the libraries, in order realize the main output of the study.

Some of the information of approached ministries and national organizations include:

- The Nomadic Affairs Organization, The two main goals of this Organisation is offering services to nomads and supporting nomads opting to settle down. On the basis of the High Council of Tribes, a 20-year policy, from the year 1987 to the year 2007, has been approved, of which the tribes are divided into two categories (Tribes opting for settlement and Tribes who have the potential of migrating). Also different offices and individuals connected with the biodiversity of the Zagros region, and their activity objectives were identified. Regarding their policies, plans, planning and projects, the National Policies in each province are different, supposing that the policy of the Organisation is not to make all migrate, or to settle down all. This Organisation pursues its national policy towards the attainment of its goals in 6 various frameworks.
- The Ministry of Agricultural Jihad, its various deputies, units and individuals in charge of biodiversity in the Zagros region with their goals were identified. The duties and activities of this ministry that can have an outstanding influence on the biodiversity, sections affiliated with the ministry, their activities, duties, and influence on the Biodiversity and their national and macro-credit policies were identified. In addition, for some units the budget management and the financial decision-making process is presented.
- Geology Organisation, its Units and individuals related to the biodiversity of Zagros area and their activities. Policies, programmes, planning and projects and budget management and process of financial decisions are also mentioned in the report.
- Iran's Tourism and Touring Organization, the main objective of Eco-Tourism the units, individuals and their impacts on biodiversity in the Zagros mountains area; policies, programmes, planning, projects related to the biodiversity of the Zagros mountains; budget management and financial processes of the organization are provided.
- The Ministry of Oil, units and individuals related to the biodiversity of Zagros area and their activities; Policies, programmes, planning, and projects related to the biodiversity of the Zagros Mountains, and the main and general objectives in this ministry with Budget Management and Financial Affairs are presented.
- Ministry of Interior, the identified information for this ministry include the units and individuals related to this organisation, activities, duties and their impacts on the biodiversity; Policies, programmes, planning, projects and budget management and the process of financial decision making.
- For Ministry of Roads and Transportation an introduction of units and special persons in the agencies whose responsibilities are connected with biodiversity is given. In addition a description of budget management and process of financial decision making in the agencies (including decentralisation for provinces or lower levels) is presented.
- The Media Studies and Research Centre of The Ministry of Islamic Guidance has various deputies and national and macro policies.

- Iran Water Resources Quality Management Company (The Ministry of Power), general information is given about the prevention, control, sustention and the quality problems of the water resources in the country, and their impact on the ecological environment issues. In addition, units and individuals related to biodiversity, their activities and impacts; various types of national dams; macro level policies and strategies for the country's water management with regard to the principles of Sustainable Development, and their description are explained.
- Other studied ministry include The Ministry of Industries and Mines, which almost similar type of information is provided.

In general, the rational for this research was to assign key or principal partners in the project at national level also to assist the project team towards the expansion of structural participation, and securing of joint investment.

### “Sustainable Finance Strategy for Conservation of Biodiversity in Central Zagros Mountains Ecosystems”

This document suggests a strategy for advancing conservation finance mechanisms in the Zagros region. The principal approach to improved financing proposed in this strategy is based on improving the effectiveness and cost-efficiency of conservation programs and activities, developing the self-financing and fundraising capacity for protected areas on-site and in-region, increasing of governmental allocations to biodiversity conservation and management, developing the fundraising from sources outside the country.

This report summarizes the observation and recommendation from the mission of the international conservation finance expert, illustrates the options of likely financing mechanisms and ways to select and adopt them, outlines steps required to establish the mechanisms, including the assessment and removal of barriers at the national level, outlines options for managing and allocating the funds generated by the mechanisms (incl. allocations to protected areas, sets the framework within which the project team can further develop the financing strategy before and during the project and proposes Full Project activities (incl. providing technical assistance, training and advice).

The principal approach to improved financing proposed in this strategy is based on:

1. Improving the effectiveness and cost-efficiency of conservation programs and activities (incl. long-term financial planning)
2. Developing the self-financing and fundraising capacity of protected areas on-site and in-region
3. Increasing of governmental allocations to biodiversity conservation and management
4. Developing the fundraising from sources outside the country

The report begins with an introduction to long-term financial planning for conservation. Then it presents an overview of key mechanisms for conservation finance and proposes a first selection of the most suitable mechanisms for the Zagros area, concentrating on site-based and national mechanisms. The main part explains these proposed mechanisms and attempts to suggest strategies to adapt and apply them to the Zagros area.

This report intends to provide the "non-financial experts" in and around the Zagros project team with a basic understanding of various innovative financing opportunities for protected areas and a framework with which to pursue these financial mechanisms. The selection of presented mechanisms is based on a quick screening. Some of these proposed mechanisms include:

- Environmental service payments: Water
- Eco- or Biodiversity Enterprise Investment facilities

- Conservation Trust Funds (Biodiversity-oriented Environmental Funds
- Locally co-funded (“Village” or “Valley”) Conservation Funds
- Fiscal instruments: Taxation schemes/charges
- (Eco)-Tourism
- Philanthropy

For each of these mechanisms a brief introduction of the mechanism and strategy recommendations are provided. Also for some mechanism, existing examples and potential in the Zagros region is mentioned. In general, this document attempts to point towards a strategy to increase the available budget, make its use more efficient, and, most importantly, sustainable for the long-term.

At the end, it concludes with additional recommendations for more in-depth feasibility studies and for the next steps in preparing and implementing the financing strategy. It has been advised to designate one team member, supported as needed by local consultants, to continuously work on the preparation and refinement of the conservation finance strategy. The mechanisms presented need to be examined in detailed feasibility studies. The data required for such studies is often complex and compilation must begin long in advance of the actual study to enable a meaningful analysis. The project team should compile further detailed information on the current and future financial situation; Legal and administrative framework and the Conservation finance examples from Iran or neighboring countries

#### “Report on Participatory Approaches”

This report outlines the activities and conclusions of the Participatory Appraisal Specialist who was recruited by the Zagros Project. The report describes the results and outcomes of the mission with respect to public involvement and participation in the project.

As reflected in the report, there were two sets of primary activities undertaken during the mission. The first includes participatory appraisal activities during the process of designing the project.

- The assessment and training of the National Consultants for the community –level participatory appraisal activities.
- The design of the Terms of Reference and the community-level questionnaire for use by the National Consultants during their contracted appraisal activities.
- Observations and recommendations on the use of participatory approaches during the full GEF project which will be designed over the next few months. The outcomes of these activities are reported on in detail in the report.

A secondary set of activities were also addressed at the request of the Project Team. The Participatory Appraisal Specialist made additional comments on several aspects of project design.

- Observations on the recently revised GEF Strategic Priorities (and the implications for the Central Zagros project).
- Observations on the global significance of the mountain ecosystem of the Central Zagros.

During the mission several long discussions resulted in notes being kept on sustainable mountain development, alternative livelihoods and innovative financing – all of which are all commented upon in the report also.

The detailed mandate, Terms of Reference and specific schedule of the participatory appraisal consultant are detailed in Appendices.

Principal results of the mission including assessment and training of the national consultants; draft terms of reference for national consultants; proposed table of contents for national consultants reports; preliminary questionnaire designed for national consultants; observation and comments on conflict resolution issues and

comments and recommendations on participatory planning for the full project design are the main outlines of the report.

A 2-day workshop and basic training session with the NC was completed in Tehran before embarking on the field portion of the mission. The workshop involved the development of preliminary terms of reference for the NC. This allowed an iterative discussion of the TOR which quite likely resulted in a better understanding of the task list among all of the participants in the project.

Given that the project formulation phase of the biodiversity conservation effort for the Central Zagros has involved an explicit commitment to participatory approaches it is assumed that the full project design will also endorse a commitment to participatory approaches during the implementation of each project component or activity. Therefore it is recommended in the report that the full project proposal should include an “activity” (meaning a dedicated budget for public participation) that specifically addresses the need for a detailed public involvement and participatory planning program design. In order to establish early credibility with community groups and non-government organizations the establishment of participatory mechanisms should be one of the very first activities that should be undertaken. As a corollary point – there must be a sufficient budget provided for such processes in recognition of the real costs of participatory planning and to ensure that there is an explicit understanding that the planning process is as equally important as the plans themselves. This is often overlooked in the budget planning and allocation process.

While the details of such a commitment need to be discussed and designed specifically for the Central Zagros Mountain Ecosystem some of the most important elements are included in the report.

#### “Strategy for Alternative Livelihoods Development”

This Alternative Livelihood report identifies potential types of activity which may be included in full GEF project. The report was prepared by an international consultant through interviews and field visits. In total 12 categories of AL were identified using participatory discussions with national agency staff, provincial government officials and representatives of NGOs.

The report is organized into six sections including:

- Context
- Potential Alternative Livelihoods (12 categories in total)
- Proposed Alternative Livelihood Strategy
- Implementation Support Activities
- Implementation Arrangements
- Additional Considerations

The report begins with a short discussion of the objectives and design criteria that have provided in the context for the discussion of alternative livelihoods. This is followed by more detailed descriptions of the 12 categories that were identified.

1. Completing and Improving the Protected Areas Network
2. Improving forestland practices and technologies
3. Improving rangeland practices and technologies
4. Improving agriculture practices and technologies.
5. Sustainable use of wild plant and animal species.
6. Nomadic pastoralist communities
7. Community-based Natural Resource Management Plans.
8. Conservation management of water resources.
9. Environmental rehabilitation
10. Commercial handicrafts development

11. Tourism opportunities
12. Improving the design of new industrial facilities

More detailed comments on ecotourism and community-based planning are also presented.

A preliminary strategy for implementing an alternative livelihood program is then presented using three major and four minor criteria to categorize the AL ideas.

Major Criteria include;

- Significance for biodiversity conservation
- Geographic scale
- GEF eligibility

This assessment is supplemented by several additional considerations.

Supplemental Criteria;

- Activities that may be implemented using a staged approach
- Activities that may be broadly replicated;
- Activities that allow early trust-building partnerships among NGOs, communities, government agencies and other stakeholders;
- Activities that allow a very early start to capacity development activities.

This results in the following recommended set of alternative livelihood programming priorities:

1. Protected Areas and PIA Biodiversity Conservation Programming
2. Forest and Rangeland Improvement and Rehabilitation Projects
3. Sustainable Mountain Agriculture Programs (which would include sustainable use of wild plant and animal species)
4. Community-Based Natural Resource Management Planning (which would include special elements focused on nomadic tribes)
5. Ecotourism (which would include commercial handicrafts development)

Secondary priorities should include:

6. Stand-alone Water Resource Management Projects
7. Stand-alone Large Scale Environmental Rehabilitation Projects
8. Environmental Impact Assessment Projects
9. Stand-alone Water Resource Management Projects
10. Stand-alone Large Scale Environmental Rehabilitation Projects
11. Environmental Impact Assessment Projects

Detailed proposals for specific GEF project activities are outlined in the report for each alternative livelihood proposal.

## **Annex 2.12: STAP Roster Expert Review**

### **Conservation of Biodiversity in the Central Zagros Landscape Conservation Zone, Iran Review by Dr Andrew Tilling**

#### **1 Introduction**

##### **1.1 Terms of reference**

This review is of the Conservation of Biodiversity in the Central Zagros Landscape Conservation Zone Project Brief dated June 2004. As the time available for the review is short and detailed technical appendices have not been made available nor sufficient time allocated to network with relevant scientists to deal with unfamiliar issues, the review mainly focuses on the general robustness of the proposed project to address the identified issues and whether proposed activities are sufficient and realistic, given the background situation and socio-economic and environmental trends. The discussion follows the generic terms of reference for project reviews, as the implementing agency has not provided more specific criteria.

#### **2 The key issues**

##### **2.1 Scientific and technical soundness of the project**

Generally, the project proponents discuss the main development and conservation issues well. They acknowledge that the situation is complex and that the root causes of the threats to the environment are complex and site specific. Very pertinent to this project is the fact that until the late 1990s the Government of the Islamic Republic of Iran (GOIRI) followed a top-down development approach and has only recently begun to revise its policies. Its treatment of nomadic peoples was also paternalistic and dismissive of traditional resource management practices. In part, the nationalisation of land, socio-cultural and demographic changes and the introduction of new technology have led to an accelerated decline in environmental and ecological conditions.

The proposed Conservation Zone in the Zagros Mountain region is described as being very mountainous and stark in places, with an average rainfall of less than 500 mm. The infrastructure is poor, as are communications. It is not surprising therefore that this environment supported nomadic peoples as their traditional pastoral system was most probably well adapted to extensive grazing and shifting to new pastures. They relied on what nature could provide (including wood and non-wood forest products). With increasing demands, there are limits to what nature can provide; the natural system has to be manipulated and better managed and demands met in other innovative ways.

The project starts with a significant drawback: the paucity of information about socio-economic conditions. Although a survey has been carried out in three villages, the inferences drawn can only be described as indicative and inconclusive. They cannot be extrapolated. The discussion needs to be underpinned by more specific demographic and socio-economic data, with trend information, so that the reader can gauge the magnitude and direction of recent changes.

More information is presented about the ecological significance of the Zone and its biodiversity. However, little is known about resource use. It is stated, though, that there are over six times more livestock than can be sustainably carried by the environment. This is serious and points to the need for further investigation and, appropriately, the crucial need for close project links and integration with other sectors, such as agriculture.

Whilst Output 2.5 provides for a large-scale biodiversity assessment and monitoring programme, no mention is made of socio-economic surveys, though these will be crucial to provide baseline information for project management to assess broader trends and for Participatory Monitoring and Evaluation (PAME). It is noted that the GEF is targeted to provide \$160,000 to implement the monitoring framework and that a consultant and local staff will be employed. However, the link between project monitoring and the GEF support is not spelled out in the project proposal. Elucidation would be helpful.

The Baseline Project against which the Alternative Project is compared and justified is problematic in its formulation. The description of the likely outcomes is only one scenario, not supported by facts or information on current trends. In the Alternative, it is recognised that a vision is needed and that this will be developed, acknowledging that there will be more than one view of the future. Reaching consensus and identifying common objectives will likely be a major task but will underpin the whole project. A specific, participatory futures (visioning) programme is recommended, with an enhanced budget.

Given that there is little recent government experience in participatory resource management in Iran or with the need to interlink conservation and development, it is entirely appropriate and sound that one of the major project outcomes is a national institutional and policy framework that is fully supportive of mainstreaming biodiversity into development. Nearly 21% of the total project cost is devoted to this output<sup>29</sup>, whilst another 54% is allocated to integrating and mainstreaming biodiversity into development across sectors.

Nevertheless, bringing about a paradigm shift in the way that the environment and development are regarded and managed will take time, despite the high budget allocation to the political, institutional and mainstreaming components. Thus, in the short lifespan of the project, a judgement has to be made as to whether the remaining \$2.2m is adequate to establish village level models of biodiversity friendly development, and whether the three proposed components and their associated activities are sufficient. The writer's own experience in a biodiversity conservation programme in the South Pacific and in an institutional strengthening project to bring participatory forestry to South Africa, suggests that it is not. Even in the writer's home country, New Zealand, where there is a sophisticated planning system that enshrines sustainable development in law, as well as a well-developed terrestrial protected area system, it can be argued that generally there has been a steady decline in biodiversity and environmental conditions. In part this is because the planning system has difficulty dealing with the cumulative impact of natural resource management practices, such as farming and forestry. This does not mean that the thrust of the project needs to be changed, but that much greater weight should be given to best management practices and guidelines.

It is very commendable that the project intends to develop rules and guidelines for government agencies and communal standards and guidelines for the use of forests and rangelands and their products. It is not apparent who these communal standards are to be of use to. It is the family and individuals who especially need to be targeted, as they are at the frontline of resource use in the remote Zagros region. Government initiatives and best management practices will be vitally important to bureaucrats but may not filter down to villagers. It is suggested that best management rules and guidelines be clarified and made more prominent as a separate output and budget line under Outcomes 2 and 3 and directed to resource users too.

The linking of biodiversity and sustainable livelihoods is a worldwide trend admirably picked up on and incorporated as a key component of the Central Zagros Landscape Conservation Zone project. The use of the term 'Alternative Livelihoods' could be misunderstood to imply that livelihoods other than those practiced now will be the focus of attention. Whilst finding innovative new ways of generating income will be crucially important, in reality this may be very difficult given the rugged, remote nature of the region. For instance, the project proponents acknowledge that ecotourism is often difficult to achieve (and may not be a panacea even if it is).

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<sup>29</sup> Note error in Total figure, line 1, Table 4.

Focusing on income generation may lead to the neglect of non-monetary aspects of rural livelihoods. Many villagers may be living at a subsistence level, (though no data are provided to confirm this). For them food security would be their first concern. Improving or modifying existing practices could be highly beneficial. Resource conservation measures, such as by the use of more efficient stoves, may go a long way to improving the livelihoods of local villagers as well as conserving habitat and biodiversity. Therefore, it is recommended that the strategy to promote Alternative Livelihoods should be clarified and a term used to encompass both existing and alternative, income and non-income generating activities.

## **2.2 Global environmental benefits and/or drawbacks of the project**

Should the objectives of the project be achieved, this will surely be of global benefit as the region has unique ecosystem of high species biodiversity, significantly important for agriculture biodiversity too. Building institutional and local capacity to manage the environment and developing existing and alternative livelihood opportunities would go a long way to ensuring that benefits are realised.

## **2.3 Fit within the context of the goals of GEF**

The project appears to be in line with GEF goals and strategies. It falls under GEF Operational Programmes numbers 1 and 3.

## **2.4 Regional context**

The regional significance of the Zagros Mountains is not only in their biodiversity but also in the deep cultural significance of the region as the birthplace of many important civilisations and also as a source of approximately 40% of the nation's water supply.

The proposed Conservation Zone straddles four provinces, with approximately 87% of the land under the direct management of government agencies. Appropriate steps appear to have been taken to mainstream the project objective and *modus operandi* into development and conservation sectors. The management mechanisms that are proposed seem to be realistic as they build on many existing institutional arrangements as well as establishing some new innovative agencies.

## **2.5 Replicability of the project**

Whilst the project proponents recognise that many issues and conditions are site specific, in all likelihood a participatory process would be established to manage resources and the ecosystem, should the outputs be achieved as planned. The tangible products or outputs may be site specific, but the new paradigm will hopefully be internalised and widely applied elsewhere.

## **2.6 Sustainability of the project**

It is noted that Iran is a middle-income country. As oil-wealth may continue for many years, the real question is whether there is an ongoing commitment to integrating conservation and development and mainstreaming this into economic and sectoral programmes. The indications are that this process has begun. The project should reinforce this process by bolstering existing institutions and creating new ones, by building capacity and by seeking new ways of involving locals in decision-making.

There are risks that the project seeks to address through the log-frame process. However, some are outside the control of the project but nevertheless remain significant. Political stability and continued commitment to devolving decision-making to the local level are crucial. Providing secure, long-term tenure to resource users and recognising and respecting nomadic and mobile peoples will also be crucial. Though these are outside the direct influence of the project, if it can be shown by practical example that a new approach is



practicable, there should be increased momentum to bring favourable institutional and environmental changes.

## **2.7 Linkages to other focal areas**

The cross-sectoral linkages proposed by the project and the objective to mainstream an integrated approach to conservation and development into economic and sectoral programmes should provide ample opportunities to ensure that environmental and ecological benefits are achieved across a spectrum of institutions.

## **2.8 Linkages to other programmes and action plans at regional or sub-regional levels**

The project proponents intend to establish close linkages with the UNDP's Area Based Development for Sustainable Development, for Sustainable Poverty Alleviation, the Sustainable Development Strategic and Strategic Environmental Assessment project and the GEF Small Grants Programme as well as with the ADB. Whilst the proponents state that the details of cooperation will be worked out at the inception of the project, it is recommended that this process begin immediately in order to closely integrate activities and avoid duplication of effort.

## **2.9 Other beneficial or damaging environmental effects**

The better management of the Conservation Zone should bring about considerable down stream benefits, both literally and metaphorically speaking, as the area is the watershed for 92 rivers flowing into southern, western and central Iran as well as being a centre for agricultural and ecosystem biodiversity. This makes the achievement of the project's objectives of fundamental importance.

## **2.10 Degree of involvement of stakeholders in the project**

The participatory approach is commendable. It is evident that the proponents have already spent considerable time consulting stakeholders and undertaking preliminary surveys in three villages.

Alternative income generating activities should provide significant motivation to locals to participate in the project. If attention is also paid to enhancing existing resource utilisation and conservation practices, this should reinforce local commitment. However, securing long term tenure or control over resources and decision-making is likely to be as, or more, important than income generation for the sustainability of the project. Hence, devolution of decision-making will likely be a crucial factor. The significance of community control and a direct role in management decisions has not been adequately stressed in the project document. It is recommended that more attention be paid to this. The antecedents and justification for such an approach can be found in the recommendations of the recent V<sup>th</sup> World Parks Congress. It recognised the importance of nomadic and mobile communities in managing the environment and promoted, amongst other things, a new paradigm - Community Conserved Areas.

## **2.11 Capacity-building aspects**

Capacity building is proposed with government officials in sector ministries. This is obviously going to be crucial. At the same time, though, there will be a need to build capacity at the community level. Training should be provided for key community leaders and primary resource users.

Appropriately, awareness raising has been identified as a key tool. The budget for this is spread over a number of discreet activities, identified in Outputs 1.3 and 2.1. These provide for the dissemination of lessons learned across the entire Zagros mountainous region. Raising the awareness of governments in three neighbouring provinces and political and economic decision-makers is provided for.

Presumably the proposed Participation House at Sabzkuh and Dena PAs and the mobile 'Participation Houses' will undertake awareness raising activities too. Since awareness raising is going to be crucial, it is recommended that an integrated strategy be prepared for this, to cover political and bureaucratic decision-makers, village leaders and other key stakeholders. In this way, a coherent, specifically funded approach can be taken. Also, it is recommended that Output 3 should be modified to reflect explicitly a local educational and awareness-raising programme.

## **2.12 Innovativeness of the project**

The project proposes to take a broad integrated approach to conservation and development in a country that has only recently changed its approach from a top-down to more decentralised decision-making system. The GOIRI now appears to recognise the rights and contribution of nomadic peoples and their traditional management systems and the need for a participatory approach. In this context, the proposed project would be path breaking, if not innovative in a world context.

## **3 Summary of Suggestions**

- Provide more specific demographic and socio-economic data, with trend information, so that the reader can gauge the magnitude and direction of recent changes.
- The link between project monitoring and the GEF support is not spelled out in the project proposal. Elucidation would be helpful.
- A specific, participatory futures programme is recommended, with an enhanced budget.
- Much greater weight should be given to best management practices and guidelines.
- Best management rules and guidelines need to be clarified and made more prominent as a separate output and budget line, under Outcomes 2 and 3 and also directed to resource users.
- The strategy to promote Alternative Livelihoods should be clarified and a term used to encompass both existing and alternative, income and non-income generating activities.
- The process of cooperation with other UNDP and ADB projects should begin immediately in order to closely integrate activities and avoid duplication of effort.
- The significance of community control and a direct role in management decisions has not been adequately stressed in the project document. More attention needs to be paid to this.
- Since awareness raising is going to be crucial, it is recommended that an integrated strategy be prepared for this, to cover political and bureaucratic decision-makers, village leaders and other key stakeholders.
- Output 3 should be modified to reflect explicitly a local educational and awareness-raising programme.

**Annex 2.13**

**Matrix Outlining Baseline, Alternative and Indicators for Mainstreaming Biodiversity into each Key Sector**

## Baseline

### Forestry

National policies, supported by large-scale national programmes, support reforestation and forest protection in the Zone. They mention biodiversity conservation – but have no implementation framework for assuring this.

Provincial agencies implement national programmes with no dedicated capacity or consideration of biodiversity.

The national programmes are locally implemented to protect forests, but the results are mixed and limited.

Local people require forest products (including wood) and continue the un-sustainable harvesting in un-managed way.

## Alternative

Partnerships and consensus will have been developed. Capacity will have been built and awareness raised. National Forest department will have commissioned studies on policies and programmes (see those listed in Annex 2.9) on forest protection and plantation. Forest department will have prepared and started to implement an implementation framework supporting biodiversity conservation, including guidelines and manuals on best practices.

In the Zone, provincial agencies will have reviewed and revised the local implementation of all key programmes. Provincial forestry departments will be measured, in part, on their performance regarding biodiversity. Strong local capacity to support sustainable forestry will have been built, including the introduction of new and improved technologies and practices. Strong market-oriented tools (e.g. the BEC) supporting biodiversity friendly income generation will be operational.

Reforestation and forest protection will be closely coordinated with biodiversity conservation objectives, with technical support from biodiversity specialists.

In the 8 pilot villages, the village level natural resource management plans (prepared through Outcome 3) will define how forest products are to be harvested in a sustainable manner and also contribute to improving livelihoods. These Plans will be implemented with broad support from Provincial governments, the BEC etc.

Restoration plans for degraded forest ecosystems will be developed and partly implemented. Incentives will be created for local community participation in restoration.

## Indicators

Forest department implementing programmes jointly with DoE;

Forest department implementing programmes with biodiversity conservation as main objective;

The existence of clear measures, in a legal or policy document, that the provincial forest departments are obliged to follow to contribute to biodiversity conservation;

Provincial forestry departments report to Provincial government and to national DoE on their efforts to conserve biodiversity;

Several biodiversity friendly, income-generating forestry projects are up and running in the pilot villages;

The use of forests in line with agreed sustainable harvest levels is monitored in the 8 pilot villages.

Forest biomass will increase in pilot sites.

Economic and non economic incentives will be created through the operation of the BEC in the Zone.

No standards exist for exploitation of forest resources.	Standards will be developed and monitored for exploitation of forest resources.	Exploitation of forest resources brought in line with sustainability needs and environmentally friendly methods.
Impacts of forest exploitation activities are not assessed.	Impacts of forest exploitation activities will be assessed.	Major plans with potential negative impacts on forest resources will not be approved.
Grazing activities are not in accordance with existing regulations	Grazing activities in woodlots will be more effectively regulated in cooperation with MoAJ.	Rate o over-grazing will be reduced in woodlots.

## **Rangelands**

There is a mixture of national policies and programmes to support nomads, with little focus on natural resource use. Mention is made of biodiversity, but there is no implementation framework

In the Zone, provincial government continue implementation of the national programmes (eg. of the 30 year lease-holds on pasture land and sedentarisation programmes). There is weak capacity, weak understanding and no operational attention to biodiversity.

Local people continue to *maximise* rangeland production to address poverty and income generation. There are no mechanisms for assuring sustainability of harvests or biodiversity conservation. Practices are very unsustainable.

Partnerships and consensus will have been developed. Capacity will have been built and awareness raised. National Rangelands and Nomadic Affairs departments will have commissioned studies on their policies and programmes (see Annex 2.9) that influence biodiversity. They will have identified changes, and they will have prepared revised implementation frameworks, including guidelines and manuals on best practices

Provincial agencies will have reviewed and revised the implementation of key programmes. Technical knowledge will be improved. The performance of provincial rangelands departments will be measured, in part, on its performance regarding biodiversity. Strong local capacity to support sustainable rangelands use will have been built. Strong market-oriented tools (BEC) supporting biodiversity friendly income generation will be operational.

In the 8 pilot villages, the village level natural resource management plans (prepared through Outcome 3) will define how rangeland products are to be harvested in a sustainable manner and also contribute to improving livelihoods. These Plans will be implemented with broad support from Provincial governments, the BEC etc.

Restoration plans for rangelands either do not exist or do not include encompass sustainable methods.

Local communities have no incentive to participate in rangeland restoration programmes in the Zone.

No standards exist for exploitation of rangelands.

The impacts of rangeland exploitation activities are not assessed

Rangeland and nomadic affairs departments implementing programmes jointly with DoE;

Rangeland and nomadic affairs departments implementing programmes with biodiversity conservation as main objective;

The existence of clear measures, in a legal or policy document, that the provincial rangeland/nomadic affairs departments are obliged to follow;

Provincial rangelands and nomadic affairs departments report to Provincial government and national DoE on efforts to conserve biodiversity.

By project end, the BEC is receiving part of its finance from private sector in the rangelands sector

Several biodiversity friendly, income-generating rangelands projects are up and running in the pilot villages.

Rangeland-use around the pilot villages is monitored and is in line with agreed sustainable harvest levels.

Rangeland biomass increased in pilot sites.

Economic and non-economic incentives will be created through BEC in the Zone.

Sustainable exploitation of rangelands ensured, and environmental friendly methods used.

Non-environmental friendly major plans not allowed.

Grazing activities are not according to the existing regulations.

Regulated grazing in rangelands will be enforced in cooperation with MoAJ.

Overgrazing rate decreased in rangelands.

## **Agriculture**

National policy makes little mention of biodiversity, and provides no real mechanisms or tools for biodiversity conservation. National policy and approaches favour the continued expansion of crops onto unsuitable lands – e.g. rain fed wheat and (limited) irrigated rice-lands.

Provincial level governments implement national policy, and pay less attention to biodiversity. Production and income generation are over-riding.

To seek short-term benefits, local actors continue to convert forests and pastures to wheat, in an unsustainable manner.

Partnerships and consensus will have been developed. Capacity will have been built and awareness raised. Agricultural department will have commissioned studies on its policies influencing wheat production and promulgated changes. Agricultural department will have prepared guidelines and manuals on best practices.

Capacity will have been built at provincial level to support biodiversity conservation. Government and BEC will be supporting biodiversity friendly agriculture across the Zone, introducing new and improved technologies and practices.

In the 8 pilot villages, the village level natural resource management plans (prepared through Outcome 3) will define how to maximise agricultural production in a sustainable manner. These Plans will be implemented with broad support from Provincial governments, the BEC etc.

Agricultural department implementing programmes jointly with DoE;

Agricultural departments implementing programmes with biodiversity conservation as main objective;

The existence of clear measures, in a legal or policy document, that the provincial agricultural departments are obliged to follow;

Provincial agricultural departments report to Provincial government and national DoE on efforts to conserve biodiversity;

By project end, BEC receiving part of its finance from private sector in agricultural sector

Several biodiversity friendly, income-generating agricultural projects are up-and-running in the pilot villages;

Land-use around the pilot villages is monitored and in line with agreed sustainable harvest levels.

Non-environmental friendly major plans not allowed.

Native land races and domesticated animals conserved across the Zone. Regulatory and administrative frameworks for agrobiodiversity conservation determined.

Utilisation of chemical pesticides and fertilizers decreased in pilot sites.

All major water projects are subjected to a SEA, with specific section on biodiversity impact;

Impacts of major agricultural and aquaculture plans will be assessed.

A comprehensive plan for Agrobiodiversity conservation will be compiled. Legislation/regulation, policies and administrative aspects of agrobiodiversity conservation will be reviewed at the national level.

Biodiversity friendly methods of pest management and land fertilization will be explored and partially implemented.

Nationally, partnerships and consensus will have been developed and awareness raised. The Water Departments will have developed specific proposals to

## **Water**

National policy focuses on well-funded, large engineering solutions to national water challenges. There is a limited focus on managerial solutions or



demand side management. There is no mention of biodiversity.  
Provincial governments implement nationally-funded programmes.

use water fees to finance biodiversity conservation and watershed protection. The required national and provincial legal tools will have been promulgated. SEA will be made operational.

In the Zone, specific proposals to transfer collected water fees to ecosystem protection will be developed, based on comprehensive research studies and necessary legal work. These will become operational. Capacity in the water sector on biodiversity will have been strengthened.

In the 8 pilot villages, in line with the village level natural resource management plan (Outcome 3), the possibility of charging downstream water users for the protection of watersheds will have been thoroughly explored.

Water resources are not harvested according to existing regulations.

Sound consideration of water resources harvesting regulations will be monitored.

The impacts of plans in water sector are not soundly assessed.

Impact of major plans in water sector will be soundly assessed. (SEA guidelines and models will be applied on pilot basis).

### **Tourism**

National policy focuses on formal tourism, with little attention to small scale private sector, nature-based or eco-tourism

Nationally, partnerships and consensus will have been developed. Capacity will have been built and awareness raised. Tourism organisation will have prepared guidelines and best practices manuals.

Provincial governments play only a little role in managing tourism.

The existing tourism development plan in each

In the Zone, most tourism is private sector, small scale and informal sector. Management and regulation is weak. Capacity is weak.

Province will have been modified to focus increasingly on key biodiversity areas, to increase eco-tourism and adventure tourism, and to be biodiversity friendly. Provincial level guidelines, standards and best practices manuals for all tourist activities are prepared. Market-oriented support mechanisms will be increasingly operational. MBRC will help generate demand for eco-tourism. BEC will help develop local private sector capacity to provide eco-tourism services.

Detailed implementation decree issued on the transfer of water fee revenue to watershed management and biodiversity conservation.

Provincial water departments report to provincial government and national DoE on the impact of their work biodiversity;

At least 2 villages will have developed a proposal and entered into detailed negotiations for fees from downstream water users to support village level watershed management.

Over harvesting of water resources will be controlled by regulations.

Major plans with negative impacts on water sector will be stopped or revised in line with EIA/SEA recommendations.

Best practices manual on tourism and biodiversity conservation approved.

By project end, MRBC and BEC receiving part of their finance from private sector in the tourism sector;

At least 5 villages will have developed and started implementing a proposal for biodiversity friendly, eco-tourism development.

In the 8 pilot villages, in line with the village level natural resource management plan (Outcome 3), the possibility of using eco-tourism to generate revenue and support biodiversity conservation will have been explored. In some villages, eco-tourism will be underway, and monitored.

No plan for Nature Based Tourism exists. Suitable areas for ecotourism are not recognised.

Plans for Nature Based Tourism will be developed. Areas with potential capacity for implementation of biodiversity conservation and ecotourism plans will be identified.

Values of nature and biodiversity resources acknowledged by tourists. Biodiversity friendly tourism activities implemented in pilot areas across the Zone.

The impacts of tourism activities on biodiversity and natural resources are not assessed.

Impacts of major tourism activities and plans will be assessed.

Non-environmental friendly major plans not allowed

### **Protected Areas**

National policy is to increase the area of land that is protected. National policy tends to create friction between local people and protected areas, because it does not fully account for the socio-economic concerns of people.

At the level of the Zone, the Project will strengthen the capacity to plan protected areas, and will ensure that the protected areas are optimally representative of all ecosystems across the Zone. The project will contribute to building capacity for assessing and valuing biodiversity, and for financing conservation. The capacity of protected area staff to cooperate and communicate with local people will have increased.

Improving attitudes to biodiversity (surveyed across the zone).

Improving status of biodiversity around the villages, (monitored at the 8 villages by the villagers).

In the Zone, the area of land 'officially' protected increases. However, only the small core areas are truly protected. Local officials are unable or unwilling to stop unsustainable resource use and pressure grows. Remaining biodiversity becomes increasingly fragmented. Local people are unaware or dislike the protected areas.

In the 8 pilot villages, as part of the village level natural resource management plans, each village will enter into an agreement with DoE and protected area staff. Protected areas will contribute to awareness raising, eco-tourism and resource protection, and so will become popular with local people.

### **Common to all sectors.**

Sectoral development is top-down:

The 8 pilot villages will be preparing, implementing and monitoring their own development plans and so driving their overall development.

All 8 pilot villages are monitoring the implementation of their plan and reporting to provincial governments;

National government makes all policies and provides almost all funds for programmes down to the provinces.

Market-oriented mechanisms to support biodiversity friendly livelihood improvement will be operating

In all 8 pilot villages, several new income-generating initiatives will be underway which also contribute to biodiversity conservation.

geographical and sectoral flexibility).

Local communities 'expect' government to provide solutions.

All stakeholders are either unaware or unappreciative of the values of biodiversity, to themselves, to their economy and to future generations.

across the Zone (with initial focus on the 8 pilot villages). The capacity of the provincial government agencies to support biodiversity friendly income-generation will have been strengthened (this latter notably with help of UNDP/ABD programme).

The economic value of central Zagros ecosystems will be known. Lessons will have been learnt from Zone and fed upwards into national level actions. National capacity and enabling environment will have been strengthened.

A range of advocacy and awareness raising activities will raise support for biodiversity conservation, in the 8 villages, in the Provincial governments and in the national government agencies.

With regard to valuation of biodiversity:

Very limited benefits are derived from biodiversity and natural resources conservation activities by local communities

No attention is being paid to improving NRM based livelihoods in different sectors. MPO does not allocate financial resources for this purpose.

Economic values of biodiversity and natural resources are not recognized and considered in development plans.

Exploitation plans in different sectors do not incorporate principles of biodiversity and natural resources conservation/restoration.

National and Provincial governments will be replicating the more community-driven approach across the Zone and across the country.

MBRC and Participation Houses are fully operational, financially sustainable, and each is monitoring the impact of its activities.

Income generated from biodiversity and natural resources conservation plans in local areas.

Income generated through implementation of improved livelihoods in 8 villages.

Economic values of biodiversity and natural resources are acknowledged and included in development planning across the Zone.

More biodiversity friendly exploitation plans are implemented in the Zone.