

Concept of the National Atlas of Protected Areas of Iran and its Realization

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SUMMARY

Over the forty-year documented protection history of Iran, one hundred and sixty areas including national parks, national natural monuments, wildlife refuge and protected areas, covering 7.17 % of the entire country, have been progressively selected among the capable lands of Iran following the required researches and investigations.

The Atlas of Protected Areas of Iran is aimed at introducing the Iranian protected areas in Persian and English. This cartographical work contains 140 pages (33*48 cm) of maps and written material and starts with an introduction on the history of the Iranian protected areas, the distribution of protected areas in the country and their development trend. A distribution map of the Iranian protected areas is presented along with a number of tables and graphs and general information on them. Each page of the atlas is allocated to one protected area. A satellite map, a hillshade, a number of photographs of the area or its important animals as well as a descriptive text are presented to introduce each area. These texts include information on location in the country, area, foundation year; mean annual temperature and precipitation, climate, important plant and animal species and tourist attractions of the area. Satellite maps of the areas are presented at different scales proportionate to their area and only some important pieces of information are repeated in English. A list of photograph subjects, names of photographers, Scientific and English names of plant and animal species referred to in the atlas are also presented on last pages. This atlas is prepared through the collaboration of Department of the Environment of Iran and the University of Tehran.

This Bi-lingual well-designed and well-produced atlas which firmly convinces the users of the need to protect natural areas, has won the 2nd Grade Award for Excellence in Cartography in the category of Atlases at the XXIII International Cartographic Conference 4-10 August, Moscow 2007.

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1. THE HISTORY OF ENVIRONMENTAL PROTECTION IN IRAN

The legislation of the Protection Bill and the establishment of the Iranian Center for Hunting in 1956 are considered as the first documented actions taken toward protecting the Iranian wildlife population and diversity. The main duties of the Center as an independent organization were defined to be the protection of game and monitoring the enforcement of the relevant regulations. These foremost experiences of the enforcement of the Bill revealed that the protection of the wildlife could only be achieved through protecting their habitats. This led to the formation of a new governmental organization in 1967 entitled the Hunting and Fishing Organization. This organization superseded the Center for Hunting in the same year serving as an independent governmental organization under the supervision of the Supreme Council of Hunting and Fishing. In laws pertaining to this organization, provisions were made to allow for the allocation of parts of the country for national parks (called wildlife parks at the time) and protected areas with predefined definitions. Therefore, the year 1967 marked the pioneer attempts for the foundation of the Iranian protected areas, 95 years after the establishment of the first national park in the world (Yellowstone National Park in the USA) and 19 years after the foundation of the World Conservation Union (IUCN). In this year, the proposal for the foundation of three national parks and 15 protected areas was approved by the Supreme Council of Hunting and Fishing as the first series of protected areas in Iran.

Two new classes of protected areas namely, wildlife refuge and national natural monument also came to existence. Based on what mentioned above, since 1974, the Iranian protected areas have been classified into four groups of national parks, national natural monuments, wildlife refuges and protected areas, according to the official definitions and criteria of the system of the classification of areas. In addition to these classes which conform to the IUCN classes and are known as the “four areas”, other areas named no-hunt areas, wetlands, international wetlands and biosphere reserves are under management. While international wetlands and biosphere reserves are among the defined classes of international environmental protection societies, the no-hunt area is considered a national innovation. The present Atlas of protected areas of Iran contains only the national parks, national natural monument, wildlife refuges and protected areas.

2. DEFINITIONS OF THE DIFFERENT TYPES OF PROTECTED AREAS

2.1. National Park

Relatively vast natural areas having specific characteristics and national significance from the geological, ecological, biogeographical and scenic areas points of view are selected as national parks with the purpose of maintaining the biological and natural conditions, improvement of the population of animal species and vegetation sites and also recreational

utilization. National parks are suitable places for educational and research activities as well as ecotourism.

2.2. National Natural Monument

Relatively small, interesting, unique, exceptional, unconventional and irreplaceable phenomena or plant and animal collections having protection, scientific, historic or natural significance are selected as national natural monument with the purpose of their protection. Protective measures in these areas shall guarantee their sustainable non-commercial utilization.

2.3. Wildlife Refuge

Areas covering typical wildlife habitats selected with the purpose of preserving the population of animal species and improving their level of quality. The minimum area of a wildlife refuge must suffice to fulfill the animal species needs as well as the integrity and interactions among its units. These areas are appropriate places for educational and research activities especially those pertaining to wildlife. Compatible utilizations and controlled tourism are allowed in refuges.

2.4. Protected Area

Relatively vast areas of high protection significance are selected with the purpose of preserving and restoring plants sites and animals habitats. Protected areas are appropriate places for the implementation of educational and research plans. Tourism and economic utilizations in proportion with each area under the comprehensive management plan of the area are allowed (Madjnoonian, 1993).

3. THE FLORISTIC ZONES OF IRAN

Iran boasts a variety of vegetation sites and plant diversity with over 8000 species thanks to its special geographic location, diverse land formations, soil, wide altitude range and climatic diversity (Sagheb-Talebi et al, 2003). Saii, Jazirehi, Sabeti, Mobayen and Tregobov have studied and classified the Iranian vegetation cover. Following these studies, Javanshir (1976) classified the Iranian vegetation cover into five floristic zones of Hyrcanian zone with humid forests, Arasbaran with sub-humid forests, Zagros with semi-arid forests, Irano-Touranian with arid and desert forests and Khalijo-Omanian with sub-tropical arid forests. The distribution of the protected areas in relation to the Iranian floristic zones is presented in figure 3.

4. THE DEVELOPMENT OF THE IRANIAN PROTECTED AREAS

The general acceptance of the concept of protected areas in Iran and the necessity to allocate areas to them which was materialized by the foundation of three national parks and 15

protected areas in 1967, is considered a turning point in the history of the environmental protection in Iran.

Designation of 160 protected areas of the total area of 11824599 ha until 2005, covering 7.17 % of the entire country area indicates an annual increase rate of 4.2 areas and 311174 ha (Darvishsefat, 2007).

In order to materialize one of the legislations of the Bali Conference in 1982 recommending that 10% of the total area of the world's forests be allocated to protected areas, an agreement was reached between the Forests, Rangelands and Watershed Management Organization and the Department of the Environment in 1999 to designate parts of the forests of the country as protected areas. According to this agreement, 22 areas in different floristic zones with the total area of 674181 ha were added to the Iranian protected areas network. This led to a 6.6 % increase in the area of the Iranian protected areas.

Another action was to designate four Iranian summits of Damavand, Alamkuh, Sabalan and Taftan all having unique characteristics as national natural monuments on the occasion of the International Year of Mountains in 2002. Although the selection of these summits as national natural monuments only marginally increased the protected areas of Iran due to their small areas, it is by far a clear sign indicating the awareness required to protect national reserves. The number and area of various Iranian protected areas including national parks, national natural monuments, wildlife refuges and protected areas are presented in Table 1. Figure 1 also exhibits the area of the protected areas over the past years.

Table 1. The number and area of the Iranian protected areas (until 2006)

Protected class	Number		Area		
	Number	Percentage	Area in ha	Percentage	Percent of the entire country area
National Park	19	11.88	1750739	14.81	1.06
National Natural Monument	16	10	19473	0.16	0.01
Wildlife refuge	33	20.62	3578338	30.26	2.17
Protected area	92	57.50	6476049	54.77	3.93
Total	160	100	11824599	100	7.17

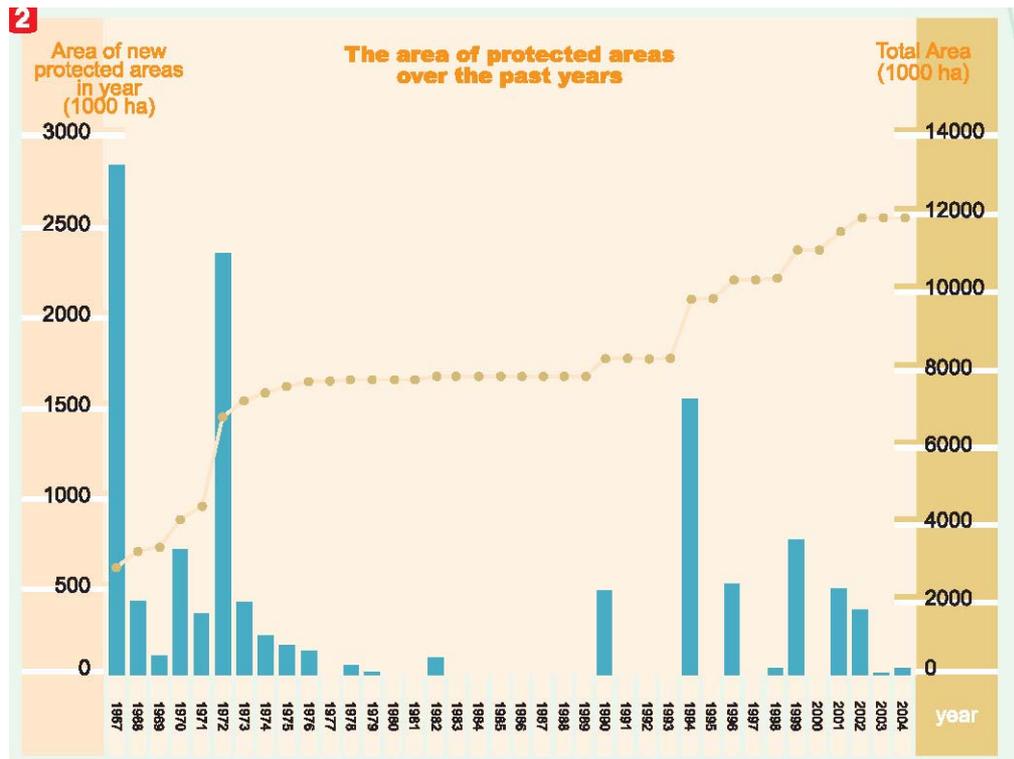


Figure 1. The area of protected over the past years

5. THE STRUCTURE OF THE ATLAS

This atlas is aimed at introducing the Iranian protected areas in Persian and English. The atlas starts with an eight-page introduction in Persian on the history of the Iranian protected areas, the definitions of different types of protected areas, the distribution of protected areas in the country and their development trend. A distribution map of the Iranian protected areas at the scale of 1:400 000 is presented along with a number of tables and graphs and general information on them (figure 2).

Because of diversity and importance of the floristic zones of Iran, a distribution map of the Iranian protected areas at the scale of 1:10 000 000 overlaid on a floristic zones map (Javanshir, 1976) is also presented (figure 3). Then, the four classes of areas including national parks, national natural monuments, wildlife refuges and protected areas are introduced. Each page of the atlas is allocated to one area, however, some vast areas are presented in two opposite pages and a number of smaller areas are fitted in one page in groups of two or three. The order of the areas conforms to their predetermined numbers. This section begins with Urumieh Lake national park on page 14 and ends with Ghalajeh protected area on page 150. A satellite map (at the scale of 10000 to 350000, depends on their area), a hillshade, a number of photographs of the area or its important animals as well as a descriptive text are presented to introduce each area. These texts accompanied by their English translations, include information on location in the country, area, foundation year, mean annual temperature and precipitation, climate based on modified de Martonne classification,

important plant and animal species and tourist attractions of the area. Satellite maps (almost based on Landsat7 ETM pan-sharpened) of the areas are presented at different scales proportionate to their area and only some important pieces of information are repeated in English. Figure 4 is an example of these pages in relation to the description of the protected areas. Its original scale is 1: 250000. A list of photograph subjects and names of photographers or owners is presented in the order of photograph number. Scientific and English names of plant and animal species referred to in the atlas are also presented. The introduction and table of photographs are repeated in English at the end of the book or in other words, at the beginning of the book for English readers.

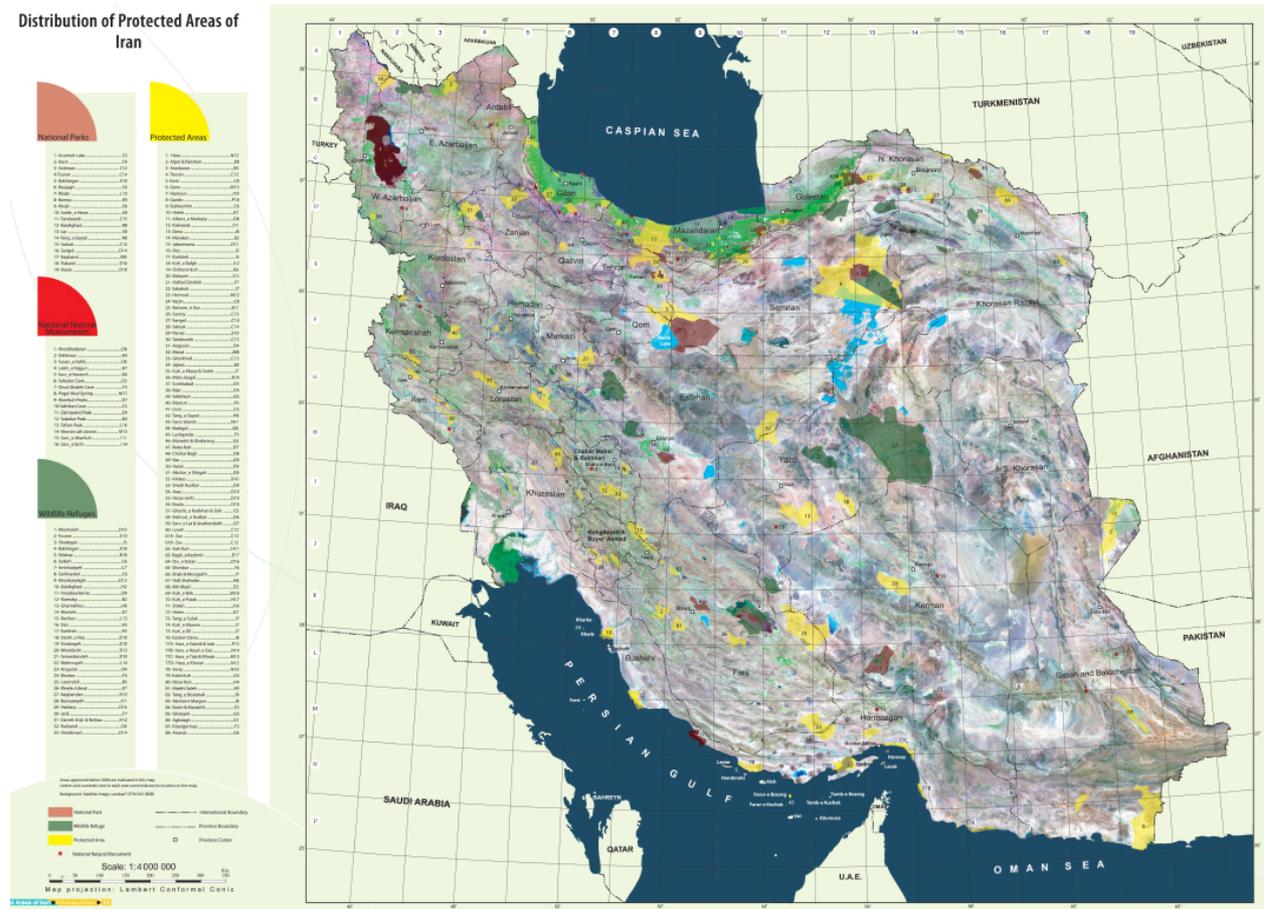


Figure 2. Distribution map of the Iranian protected areas (original scale: 1:400 000)

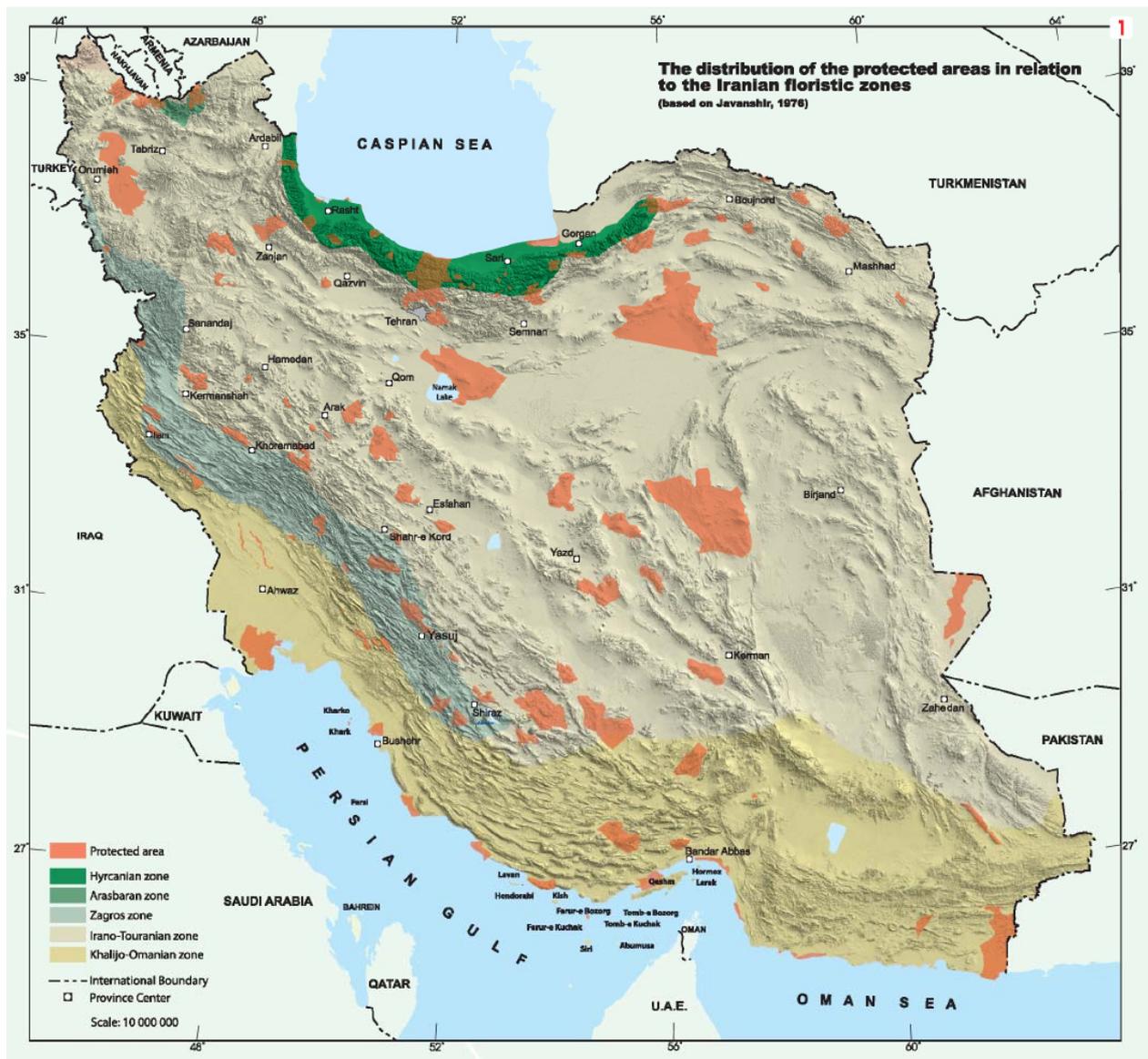


Figure 3. The distribution of the protected areas in relation to the Iranian floristic zones (based on Javanshir, 1976)

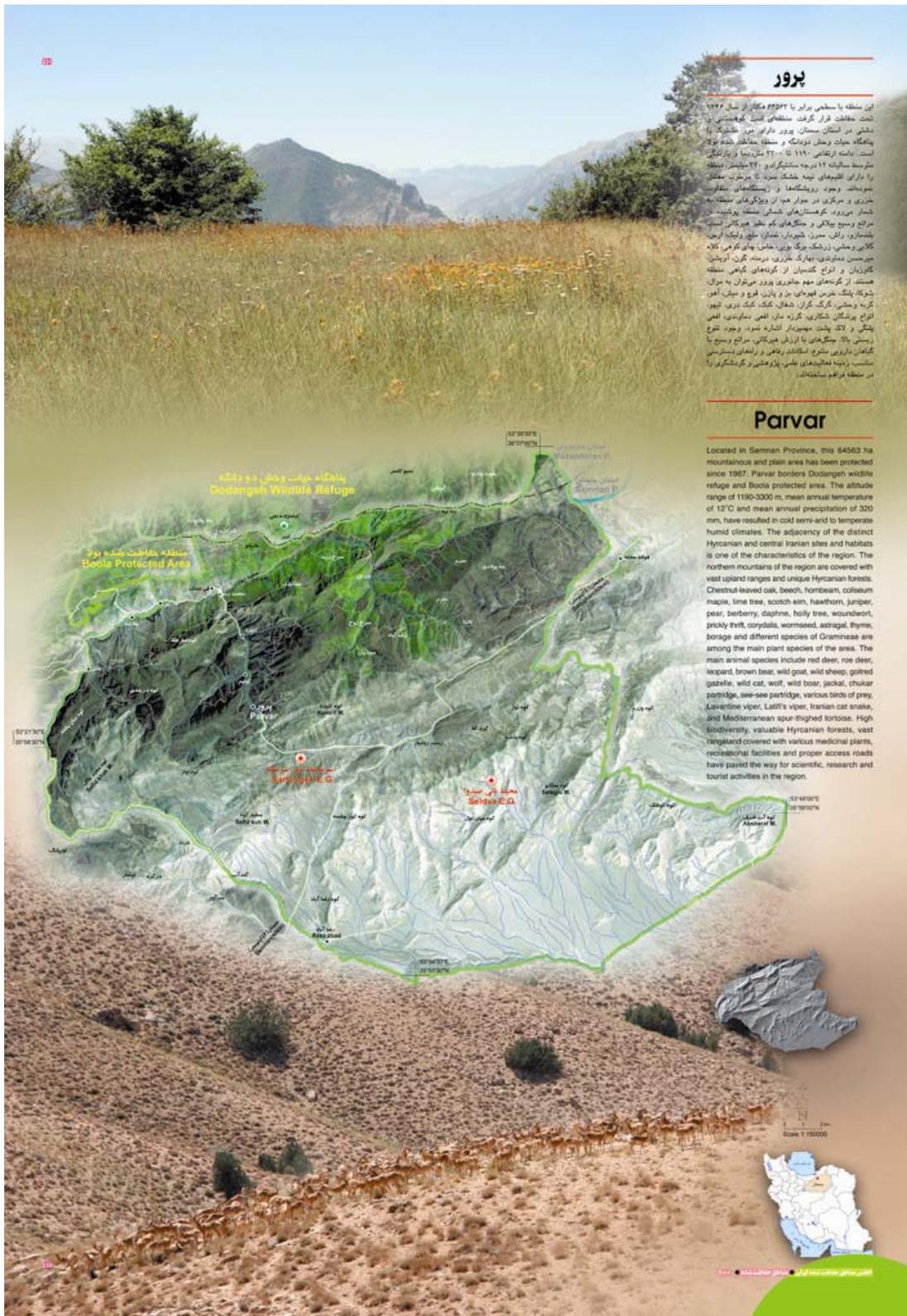


Figure 4. An example of the main pages of the Atlas, Parvar protected area (original scale: 1:250000)

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