

Case Study 1

Valuing the Benefits of Conservation of the Fès Medina

1998

The preparation of a World Bank-financed project aimed at preserving and improving the historic Medina in Fès, Morocco—a UNESCO World Heritage site that is rapidly deteriorating—provided an opportunity to test the approach described in this paper. The Fès study was a pioneering effort in the use of CV for valuation of cultural heritage sites.

The project

Like the rest of Morocco's 30 Medinas, the Fès Medina has been largely overlooked for much of the century as investment concentrated in areas outside the traditional urban centers. The result has been a serious deterioration of the historic building stock, of the urban infrastructure, and of the urban environment. This decline has been compounded by in-migration from rural areas, resulting in a high population density consisting mostly of residents with income levels below the national average. A 1995 survey found that 36 percent of the Medina's 150,000 inhabitants are below the poverty threshold, a proportion far exceeding the national average for both urban (10.4 percent) and rural (28.7 percent) populations. Moreover, half of the housing stock is seriously decayed and housing occupancy levels surpass acceptable levels. Many small-scale polluting industries have concentrated in the Medina, resulting in poor air and water quality and important negative health impacts including cholera. Most infrastructure is in need of replacement or modernization, particularly water supply, sewerage and solid waste disposal, telecommunications, and transport.

Fès was placed on the World Heritage List in 1976. In 1980 UNESCO launched an international safeguarding campaign, which raised awareness of the site's importance but did not succeed in generating the financial support needed to carry out significant rehabilitation works. Most conservation activity to date has concentrated on individual monuments, with little attention to the remaining built environment.

The proposed World Bank-financed project will assist in the conservation and rehabilitation of the Fès Medina, with particular attention to the historic housing stock and the quality of the urban environment. It will do so with direct interventions as well as efforts to increase private conservation efforts. Priority rehabilitation activities will upgrade the historic housing stock. Tourism offerings will be expanded. Access for emergency public services will be improved and extended to the center of the Medina, facilitating logistical activities for residents and businesses and creating more favorable conditions for urban development and private sector investment. Solid waste collection and pollution reduction for small-scale industries programs will be instituted. The capacity of the municipality and responsible local agencies to plan and carry out proposed improvements will be strengthened. A labor-intensive public works program linked with the rehabilitation process will create employment and hence contribute to poverty reduction.

Analysis of benefits

Five major groups can be identified as benefiting from the planned activities in the Fès Medina:

- Residents of the Fès Medina and of Fès generally.
- Moroccans who are not residents of Fès.
- Foreign visitors to Fès, including
 - Tourists. About 160,000 adult foreign tourists remain overnight at Fès hotels annually.
 - Islamic pilgrims.
- Foreign visitors to Morocco who do not visit Fès during their current trip. About 1,500,000 adult foreign tourists visit Morocco annually.
- Non-Moroccans who do not visit Morocco.

A full analysis would require the benefits received by each of these groups to be investigated.

The residents of Fès will benefit directly from the improvements carried out to the Medina's infrastructure. Analysis of likely increases in property values resulting from improved accessibility, for example, shows a rate of return of 17 percent to expenditures on this component. In addition to benefiting from the physical improvements, residents will also benefit from the conservation and revitalization of the Medina's cultural heritage. Other Moroccans will likewise benefit from the same improvements, albeit to a smaller extent than residents.

Although Moroccans, and particularly residents, are likely to benefit significantly from the preservation of the Medina's cultural heritage, time and resource constraints meant efforts to quantify the cultural heritage benefits of the proposed project had to be targeted on tourists and foreign residents. Tourists represent a significant source of potential income which could help finance the required improvements but which is only partially captured at present. In addition, research was also undertaken on the benefits to be received by non-Moroccans who do not visit Morocco, to get a sense of the global value of the existence of the Fès Medina.

Contingent valuation of tourist willingness to pay for conservation of Fès

To estimate the benefits that foreign visitors to the Fès Medina would receive, a contingent valuation survey was carried out with World Bank financing during the summer of 1997. The survey distinguished the willingness to pay for improvements of visitors of the site itself from those of other visitors to Morocco.

A multi-stage sample of 600 adult visitors was designed to represent visitors (including both tourists and those visiting for business or other purposes) to Morocco who visited the country during June-July, 1997. Of the total of 600 interviews, 400 interviews were undertaken in Fès. Of the remaining interviews, 120 were carried out in Casablanca and 80 in Tangier, on the basis of their respective visitor flows.

The first section of the survey consisted of 16 questions requesting information about the respondent's visit to Morocco and to Fès. In the second section, the situation at Fès was presented to respondents using a short narrative supplemented by showcards featuring colored photographs of the Medina. This presentation provided respondents with a standardized set of information about the character and condition of the Fès Medina today. It concluded by saying that without a major rehabilitation effort the Medina will continue to decline. The third section of

the instrument presented a plan to rehabilitate the Fès Medina, which was described as having been developed by “the Moroccan Government in collaboration with experts from international agencies.” Respondents were told the plan would accomplish three things:

- It would improve the Medina's appearance; buildings, streets, sewers, public spaces, and monuments would be repaired and cleaned up;
- It would preserve the Medina's traditional character and cultural heritage for future generations; and
- It would ensure that the Medina would continue to be a productive and vibrant living city.

These prospective accomplishments represent the public goods that the proposed rehabilitation plan will provide.

Respondents were then told that “one way to help pay for” the proposed activities would be to charge visitors such as themselves a special fee. Fès visitors were asked whether they would have included Fès in their itinerary if they had had to pay a Fès preservation fee of a specified amount when they registered at their hotel. For non-visitors to Fès, the fee was presented as a departure fee. Respondents were randomly assigned to one of six price-point sub-samples which varied between 25 and 2,000 dirhams (between \$25 and \$200). The amounts were chosen to bracket the anticipated range of median willingness to pay. It was assumed that visitors to Fès would be willing to pay more than tourists who were not visiting Fès. The upper ranges for these two groups were thus fixed at the equivalents of \$200 and \$100, respectively.

Interviewing began in Fès on June 16, 1997 and continued until July 3. The Casablanca and Tangier interviews were conducted between July 15 and July 25.

Benefits received by visitors

Visitors have a demonstrated preference for the site, since they have taken the trouble to come and visit. Since they are on-site, they will also experience directly the results of any improvements. They are likely, therefore, to have a high willingness to pay for improvements. The survey found that visitors to the site itself would be willing, on average, to pay as much as US\$70 each for improvements aimed at preserving and improving conditions in the Medina. Given the number of visitors each year, this equivalent to a total annual benefit to visitors of about US\$11 million. This figure would of course increase if the number of visitors increased.

Benefits received by non-visitors

Other visitors to Morocco may share an overall appreciation for this kind of site, but since they are not physically present at the site they will not receive any use benefits; their willingness to pay for preservation is based on the value they place on the site's existence, and to some extent on the possibility that they might visit it in the future (known as option value). The survey found that such visitors would be willing to pay about US\$30 each. Given the number of tourists visiting Morocco each year, this is equivalent to a total annual benefit to visitors of about US\$47 million.

To further investigate the benefits received by non-visitors, a Delphi survey was conducted among European CVM experts to determine what, in their opinion, the mean and median WTP for the rehabilitation of the Fès Medina would be among the European population in general. A Delphi survey involves solicitation of the opinions of experts rather than consumers. When funding or time are not available for the collection of original data, such a survey may be the

only way to develop an estimate of the value. The Delphi exercise was conducted using a stratified random sample of 30 attendees at the June 1997 meeting of the European Association of Environmental and Resource Economists (EAERE) in Tilburg, Netherlands. This meeting was chosen because it was likely to contain the largest concentration of European economists familiar with contingent valuation.

The results of the Delphi survey indicated that the household WTP for preservation of Fès ranged from \$12.1 (mean WTP) to \$ 2.15 (median WTP). To be as conservative as possible, the lowest estimated value (\$2.15), was used. This estimate was applied to the 144,342,000 households in Europe (Eurostat, 1991), giving an estimate for the total value of Fès Medina to European households of about US\$310 million. The best use of this number is to indicate that European households place a relatively high value on restoration of the Fès Medina.

Even if only a fraction of the amount of benefits received by visitors (US\$11 million to Fès visitors and US\$47 million to other visitors, for an annual total of about US\$58 million) could be captured in Morocco—for example, by increasing the tourist tax—it would generate a substantial annual income flow which could be used to finance the required conservation investments.

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