In: Aronson et al. (eds) 2009, Cork Oak Woodlands on the Edge. Island Press

PART III
Restoration in Practice

In the last chapter of Part II the topic was passive restoration and autoregeneration, eg., through encouraging natural dispersal of acorns by animals and the subsequent colonization of trees. In Part III we address seeding and planting techniques, used for afforestation and the active restoration of cork oak woodlands. Both processes entail several steps. The first steps—germplasm selection and ensuring quality of plant material in the nursery (Chapter 11)—are critical, but later steps, such as site preparation, protection of seeds and seedlings, and other field techniques (Chapter 12), also require careful planning, execution, and monitoring.

In Mediterranean climate regions, drought is the main threat to survival of nursery-raised seedlings. In the critical period just after planting and before seedling roots have colonized the soil outside their containerized soil masses, a few days of drought can be fatal. Therefore, nursery techniques must be tailored to reduce transplant shock and to favor successful seedling acclimation through a combination of biotic and abiotic manipulation techniques. In addition, fine-tuned germplasm selection has still a long way to go to significantly contribute to restoration in practice, especially in the face of climate change and global warming. Similarly, field techniques should be designed to increase water supply to and reduce transpiration from newly planted seedlings.

In Chapters 11 and 12 the reader will find much useful information and discussion of all these issues. However, recall that planning, execution, and monitoring should be flexible and will vary somewhat between sites. No standards can guarantee project success because unpredictable and

uncontrollable factors often intervene. Furthermore, as we shall see in Parts IV and V, there are major obstacles to putting these strategies and techniques into action that derive from continental and global drivers of a socioeconomic and cultural nature.

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