

**Table S1.** Summary of characteristics of Mexico TDF regions

<b>Region</b>	<b>Elevation (m a.s.l.)</b>	<b>Plant richness</b>
Pacific Coast	0 - 500	651
Yucatan Peninsula	0 - 190	> 200
Central Region	1,000	> 900
Gulf of Mexico	0 - 700	> 300

**Table S2.** Soil types and fertility category of the studies that had field work, both in experimental studies and implementation of active restoration.

	<b>Author</b>	<b>Title</b>	<b>Soil type</b>	<b>Fertility</b>
1	Allen, E.B. et al.	Impacts of early-and late-seral mycorrhizae during restoration in seasonal tropical forest, Mexico	Rendzina	High
2	Allen, M.F. et al.	Effects of mycorrhizae and nontarget organisms on restoration of a seasonal tropical forest in Quintana Roo, Mexico: factors limiting tree establishment	Rendzina	High
3	Álvarez-Aquino, C. & Williams-Linera, G.	Seedling survival and growth of tree species: Site conditions and seasonality in Tropical Dry Forest restoration	Vertisol	Medium
4	Álvarez-Aquino, C. et al.	Soil seed bank, seed removal, and germination in a Seasonally Dry Tropical Forest in Veracruz	Vertisol	Medium
5	Ballina-Gomez, H.S. et al.	Light and micorrhizal effect in seed germination of tropical dry forest tree species	Rendzina	High
6	Barajas-Guzmán, M.G. & Barradas, V.L.	Costs and benefits of mulches application in the reforestation of tropical deciduous forests	Regosol	Low
7	Barajas-Guzmán, M.G. & Barradas, V.L.	Microclimate and sapling survival under organic and polyethylene mulch in a tropical dry deciduous forest	Regosol	Low
8	Barajas-Guzman, M.G. et al.	Soil water, nutrient availability and sapling survival under organic and polyethylene mulch in a seasonally dry tropical forest	Regosol	Low
9	Bonilla-Moheno, M. & Holl, K.	Direct Seeding to Restore Tropical Mature-Forest Species in Areas of Slash-and-Burn Agriculture	Rendzina	High
10	Carrasco-Carballido, V. et al.	Effects of Initial Soil Properties on Three-Year Performance of Six Tree Species in Tropical Dry Forest Restoration Plantings	Regosol	Low

11	Castellanos-Castro, C & Bonfil, C.	Establecimiento y crecimiento inicial de estacas de tres especies de <i>Bursera Jacq. ex L.</i>	Acrisol	Low
12	Castellanos-Castro, C. & Bonfil, C.	Propagation of three <i>Bursera</i> species from cuttings	Andosol	Medium
13	Ceccon, E. et al.	Biological potential of four indigenous tree species from seasonally dry tropical forest for soil restoration	Acrisol	Low
14	Ceccon, E. et al.	The effect of inoculation of an indigenous bacteria on the early Growth of <i>Acacia farnesiana</i> in a degraded area	Vertisol	Medium
15	Ceccon, E. et al.	Tree seedling dynamics in two abandoned tropical dry forests of differing successional status in Yucatán, Mexico: a field experiment with N and P fertilization	Acrisol	Low
16	Cervantes, M. et al.	Germination of stored seeds of four tree species from the Tropical dry forest of Morelos, Mexico	Rendzina	High
17	Diaz-Gustavo, N. et al.	Carbon sequestration of <i>Caesalpinia platyloba</i> S. Watt (Leguminosae)(Lott 1985) in the tropical deciduous forest	Feozem	Medium
18	Diemont, S. et al.	Comparisons of Mayan forest management, restoration, and conservation	Vertisol	Medium
19	Encino-Ruiz, L. et al.	Performance of three tropical forest tree species in a test deciduous ecological restoration	Nitosol	High
20	Fehling-Fraser, T.C. & Ceccon, E.	Macropropagation of <i>Erythrina americana</i> in a greenhouse: a potential tool for seasonally dry tropical forest restoration	Nitosol	High
21	Gamboa, A.M. et al.	Nutrient Addition Differentially Affects Soil Carbon Sequestration in Secondary Tropical Dry Forests: Early- versus Late-Succession Stages	Gleysol	High
22	González-Tokman, D. & Martínez-Garza, C.	Effect of ecological restoration on body condition of a predator	Vertisol	Medium
23	Gonzalez-Tokman, D. et al.	Performance of 11 tree species under different management treatments in restoration plantings in a tropical dry forest	Rendzina	High
24	Griscom, H.P. & Ashton, M.S.	Restoration of dry tropical forests in Central America: a review of pattern and process	Rendzina	High
25	Hernández-Oria, J.G. et al.	Early establishment and survival of the neotropical dry deciduous forest tree <i>Lysiloma microphyllum</i> from mountainous Bajío Queretano, Mexico	Regosol	Low
26	Hernandez, Y. et al.	Lepidopteran herbivory in restored and successional sites in a Tropical Dry Forest	Vertisol	Medium

27	Huante, P. et al.	The role of arbuscular mycorrhizal fungi on the early-stage restoration of seasonally dry tropical forest in Chamela, Mexico	Regosol	Low
28	Juan-Baeza, I. et al.	Recovering More than Tree Cover: Herbivores and Herbivory in a Restored Tropical Dry Forest	Regosol	Low
29	Luna-Nieves, A.L. et al.	Guiding seed source selection for the production of tropical dry forest trees: <i>Coulteria platyloba</i> as study model	Regosol	Low
30	Mariano, N.A. et al.	Differential herbivory and successional status in five tropical tree species	Rendzina	High
31	Martínez-Garza, C. et al.	Ocho años de restauración experimental en las selvas estacionales de México	Rendzina	High
32	Mendez-Toribio, M. et al.	Removal of Climbing Plants and Soil Plowing as a Strategy to Enhance Forest Recovery in Tropical Dry Forests Old Field	Regosol	Low
33	Moreno-Casasola, P. et al.	Germinación y supervivencia de dos especies de acahual de selva baja para restaurar dunas costeras	Feozem	Medium
34	Newton, A.C. et al.	Forest Landscape Restoration in the Drylands of Latin America	Acrisol	Low
35	Núñez-Cruz, A. & Bonfil, C.	Initial establishment of three species of Tropical Dry Forest in a degraded pasture: Effects of adding mulch and compost	Rendzina	High
36	Salinas-Peba, L. et al.	Survival and growth of dominant tree seedlings in seasonally tropical dry forests of Yucatan: site and fertilization effects	Rendzina	High
37	Sanchez-Velasquez, L.R. et al.	Nurses for <i>Brosimum alicastrum</i> reintroduction in secondary tropical dry forest	Rendzina	High
38	Williams-Linera, G. & Álvarez-Aquino, C.	Tropical dry forest landscape restoration in Central Veracruz, Mexico	Cambisol	Medium
39	Williams-Linera, G. et al.	Principles and Practice of Forest Landscape Restoration Case studies from the drylands of Latin America: Experimental analysis of dryland forest restoration techniques	Vertisol	Medium
40	Zulueta-Rodriguez, R. et al.	Survival and growth of <i>Jacaratia mexicana</i> seedlings inoculated with arbuscular mycorrhizal fungi in a tropical dry forest	Regosol	Low

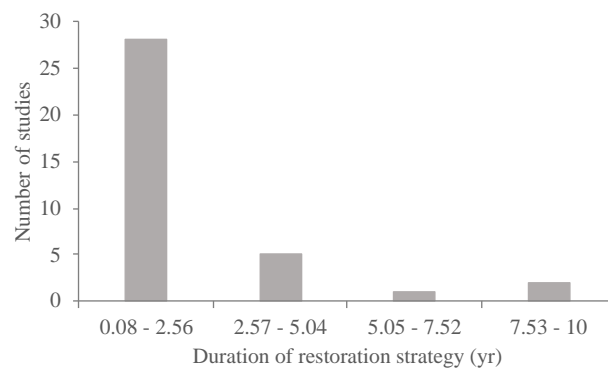
**Table S3.** Description of the categories of the metrics reported by the studies reviewed to evaluate the impact of the restoration studies. The variables that were included in each category are specified.

Category	Description	Variables	Number of studies
Vegetation structure	Metrics used to measure the recovery of the physiognomy of TDF	Biomass	2
		Diameter	1
		Growth	1
		Height	4
		Imbibition curves	1
		Recruitment	1
		Root development	2
		Seed banks abundance	1
		Seed size	1
		Survival	14
Functional attributes of the vegetation	attributes related to the ecological and physiological functions of plants	Germination	5
Ecosystem functions	Functions or attributes related to the ecological functionality of ecosystems	Seed viability	1
		Microclimate	1
Soil attributes	Physical and chemical attributes of the soil	Body condition of fauna	1
		Litterfall	1
		Soil initial conditions	1
Biotic interactions	Biotic interactions between organisms in the ecosystem	Soil nutrients	1
		Herbivory	1
Biotic composition and diversity	Composition of species of both plants and other organisms, as well as metrics to evaluate the diversity contained in the ecosystem	Infection of frequency	1
		Plant Richness	1
Services and social outcomes	Metrics used to assess social impact, as well as the interaction of local communities with restoration projects	Arthropods communities	1
		Prioritized Native Species for Restoration	1

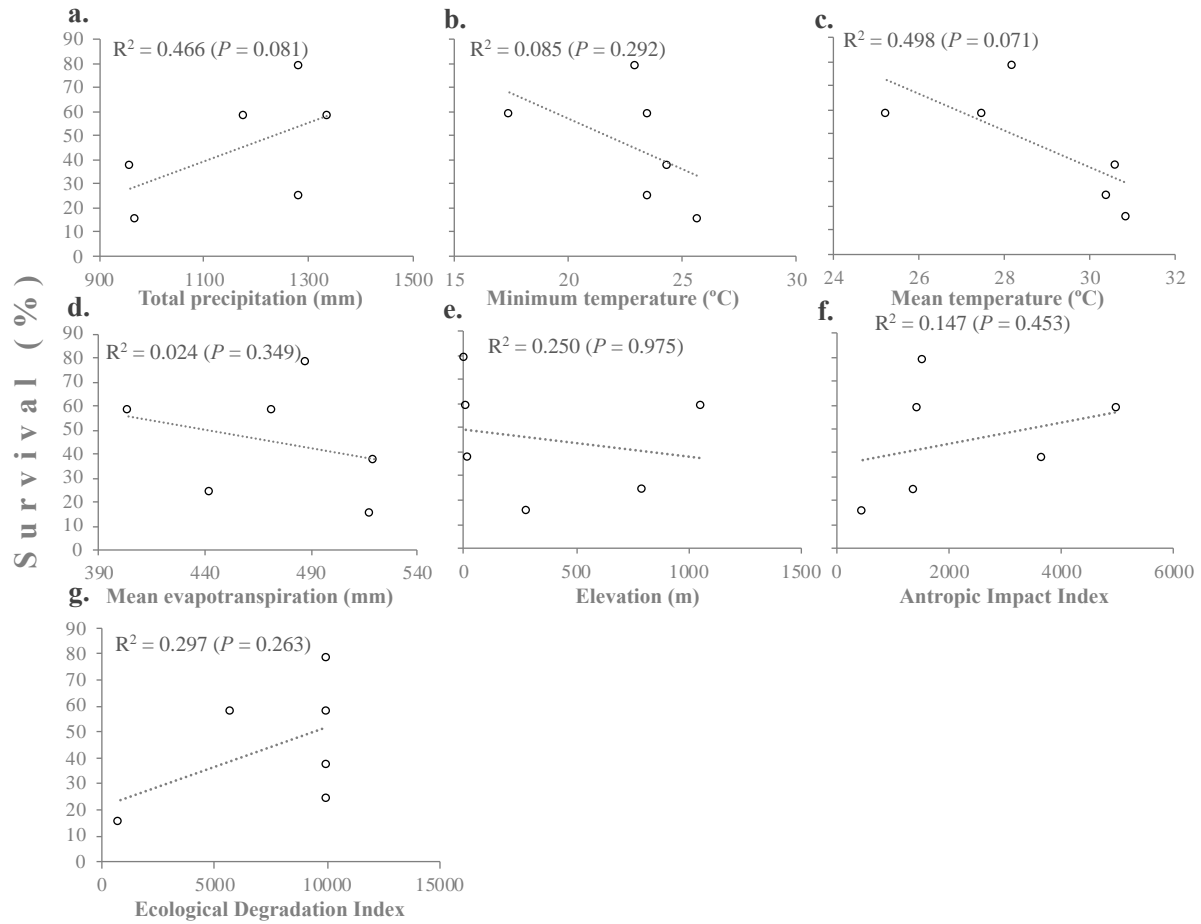
**Table S4.** Information on previous land uses reported in the studies, as well as the categories of active restoration strategies recorded in the reviewed studies.

	Category	Sub-category	Number of studies
Previous Management	Cattle		19
	Crops		13
	Fire		2
	Timber extraction		1

Restoration strategy	Intensive agro- forestry	1	
	Non-timber products	1	
	Wasteland	1	
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	Planting	32	
		Canal building	1
		Exclosure	3
	Planting + Management	Fertilizer	4
		Hydrogel	1
		Mulch	3
		Nurse tree	1
		Watering	1
	AMF Inoculation		
	Seed related	Seeding	6
		Grass removal	1
	Plant removal	Herbicide	1
Weed control		1	



**Figure S1.** Frequency of studies in the different categories of duration of the implementation of a restoration strategy (yr).



**Figure S2.** Relationships between plant survival and environment variables: (a) total annual precipitation ( $\text{mm yr}^{-1}$ ), (b) minimum annual temperature ( $^{\circ}\text{C}$ ), (c) mean annual temperature ( $^{\circ}\text{C}$ ), (d) mean evapotranspiration (mm), (e) elevation (m), (f) anthropic impact index and (g) ecological degradation index.