

## Appendix B: List of Patch Variables

Used in the simulation runs in this paper.

**Extraction-cost:** Tracks how much resistance covers the 'wants' on the patch.

**Extraction-value:** A calculated value used by agent's to imperfectly 'see' the state of 'wants' in the environment.

**Fixed-resources-here:** Tracks the amount of 'wants' available on this patch

**Harvest-cost:** Tracks how much resistance covers the patch's 'needs'.

**Renewable-resource-here:** Tracks how much 'needs' is available on this patch.

Not used in the simulation runs in this paper

**Land-disruption:** Used to calculate 'pollution'

**Land-disruption1:** Used to calculate the effects of 'over harvesting' of 'needs'.

**Land-usage:** Used to calculate 'pollution'. 'Pollution' increases the resistance to harvesting 'needs'.

**Needs-harvest:** Tracks the total 'needs' harvest over one iteration for this patch.

**Recovery:** Determines how quickly this patch recovers if 'polluted'

**Recovery1:** Determines how quickly this patch recovers from overharvesting of 'needs'.

**Resource-value:** A calculated value used by agent's to 'see' the state of 'needs' in the environment.

**Wants-harvest-indicator:** Tracks whether any 'wants' has been harvested from this patch during this iteration.