

# PACHAMAMA ALLIANCE

## Drawdown Solutions by Sector

### Land Use

Tropical Forests  
Temperate Forests  
Peatlands  
Afforestation  
Bamboo  
Forest Protection  
Indigenous Peoples' Land  
Management  
Perennial Biomass  
Coastal Wetlands

### Food

Reduced Food Waste  
Plant-Rich Diet  
Silvopasture  
Regenerative Agriculture  
Tropical Staple Trees  
Conservation Agriculture  
Tree Intercropping  
Managed Grazing  
Clean Cookstoves  
Farmland Restoration  
Improved Rice  
Cultivation  
Multistrata Agroforestry  
System of Rice  
Intensification  
Composting  
Nutrient Management  
Farmland Irrigation  
Biochar

### Materials

Refrigerant Management  
Alternative Cement  
Water Saving - Home  
Bioplastic  
Household Recycling  
Industrial Recycling  
Recycled Paper

### Energy

Wind Turbines (Onshore)  
Solar Farms  
Rooftop Solar  
Geothermal  
Nuclear  
Wind Turbines (Offshore)  
Concentrated Solar  
Wave and Tidal  
Methane Digesters (Large)  
Biomass  
Solar Water  
In-Stream Hydro  
Cogeneration  
Methane Digesters (Small)  
Waste-to-Energy  
Micro Wind  
Energy Storage (Distributed)  
Energy Storage (Utilities)  
Grid Flexibility  
Microgrids

### Women and Girls

Educating Girls  
Family Planning  
Women Smallholders

### Transport

Electric Vehicles  
Ships  
Mass Transit  
Trucks  
Airplanes  
Cars  
Telepresence  
High-speed Rail  
Electric Bikes  
Trains  
Ridesharing

### Building and Cities

District Heating  
Insulation  
LED Lighting (Household)  
Heat Pumps  
LED Lighting (Commercial)  
Building Automation  
Walkable Cities  
Smart Thermostats  
Landfill Methane  
Bike Infrastructure  
Smart Glass  
Water Distribution  
Green Roofs  
Net Zero Buildings  
Retrofitting

## Summary of Drawdown Solutions By Overall Rank

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|--|---|---|
| <ol style="list-style-type: none"> <li>1. Refrigerant Management</li> <li>2. Wind Turbines (Onshore)</li> <li>3. Reduced Food Waste</li> <li>4. Plant-Rich Diet</li> <li>5. Tropical Forests</li> <li>6. Educating Girls</li> <li>7. Family Planning</li> <li>8. Solar Farms</li> <li>9. Silvopasture</li> <li>10. Rooftop Solar</li> <li>11. Regenerative Agriculture</li> <li>12. Temperate Forests</li> <li>13. Peatlands</li> <li>14. Tropical Staple Trees</li> <li>15. Afforestation</li> <li>16. Conservation Agriculture</li> <li>17. Tree Intercropping</li> <li>18. Geothermal</li> <li>19. Managed Grazing</li> <li>20. Nuclear</li> <li>21. Clean Cookstoves</li> <li>22. Wind Turbines (Offshore)</li> <li>23. Farmland Restoration</li> <li>24. Improved Rice Cultivation</li> <li>25. Concentrated Solar</li> <li>26. Electric Vehicles</li> <li>27. District Heating</li> <li>28. Multistrata Agroforestry</li> <li>29. Wave and Tidal</li> <li>30. Methane Digesters (Large)</li> <li>31. Insulation</li> <li>32. Ships</li> <li>33. LED Lighting (Household)</li> <li>34. Biomass</li> <li>35. Bamboo</li> <li>36. Alternative Cement</li> <li>37. Mass Transit</li> </ol> | <ol style="list-style-type: none"> <li>38. Forest Protection</li> <li>39. Indigenous Peoples' Land Management</li> <li>40. Trucks</li> <li>41. Solar Water</li> <li>42. Heat Pumps</li> <li>43. Airplanes</li> <li>44. LED Lighting (Commercial)</li> <li>45. Building Automation</li> <li>46. Water Saving - Home</li> <li>47. Bioplastic</li> <li>48. In-Stream Hydro</li> <li>49. Cars</li> <li>50. Cogeneration</li> <li>51. Perennial Biomass</li> <li>52. Coastal Wetland</li> <li>53. System of Rice Intensification</li> <li>54. Walkable Cities</li> <li>55. Household Recycling</li> <li>56. Industrial Recycling</li> <li>57. Smart Thermostats</li> <li>58. Landfill Methane</li> <li>59. Bike Infrastructure</li> <li>60. Composting</li> <li>61. Smart Glass</li> <li>62. Women Smallholders</li> <li>63. Telepresence</li> <li>64. Methane Digesters (Small)</li> <li>65. Nutrient Management</li> <li>66. High-speed Rail</li> <li>67. Farmland Irrigation</li> <li>68. Waste-to-Energy</li> <li>69. Electric Bikes</li> <li>70. Recycled Paper</li> <li>71. Water Distribution</li> <li>72. Biochar</li> </ol> | <ol style="list-style-type: none"> <li>73. Green Roofs</li> <li>74. Trains</li> <li>75. Ridesharing</li> <li>76. Micro Wind</li> <li>77a. Energy Storage (Distributed)</li> <li>77b. Energy Storage (Utilities)</li> <li>77c. Grid Flexibility</li> <li>78. Microgrids</li> <li>79. Net Zero Buildings</li> <li>80. Retrofitting</li> </ol> <p><b>Coming Attractions</b></p> <ol style="list-style-type: none"> <li>1. Repopulating the Mammoth Steppe</li> <li>2. Pasture Cropping</li> <li>3. Enhanced Weathering of Minerals</li> <li>4. Marine Permaculture</li> <li>5. Intensive Silvopasture</li> <li>6. Artificial Leaf</li> <li>7. Autonomous Vehicles</li> <li>8. Solid-State Wave Energy</li> <li>9. Living Buildings</li> <li>10. Direct Air Capture</li> <li>11. Hydrogen-Boron Fusion</li> <li>12. Smart Highways</li> <li>13. Hyperloop</li> <li>14. Microbial Farming</li> <li>15. Industrial Hemp</li> <li>16. Perennial Crops</li> <li>17. A Cow Walks onto a Beach</li> <li>18. Ocean Farming</li> <li>19. Smart Grids</li> <li>20. Building with Wood</li> </ol> |
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