


Natural											
CDR Approach	Stage of Deployment				Cost	Monitoring, Reporting, and Verification	Permanence				
	 Lab	 Pilot	 Demo	 Commerical			 Decades	 100-200 Years	 200-1,000 Years	 Millennia	 Millions of Years
Improved forest management						Hard					
Afforestation/ reforestation						Medium					
Peatland/wetland restoration						Hard	<div>Wetlands</div> <div>Peatlands</div>				
Coastal blue carbon						Hard	<div>more research needed</div>				
Soil carbon sequestration						Hard	<div>up to 1,000 years if soil cover is turned back into forest</div>				
Hybrid											
CDR Approach	Stage of Deployment				Cost	Monitoring, Reporting, and Verification	Permanence				
	 Lab	 Pilot	 Demo	 Commerical			 Decades	 100-200 Years	 200-1,000 Years	 Millennia	 Millions of Years
Ex situ mineralization (CO2 storage)					 - 	Easy					
In situ mineralization (CO2 storage)					 - 	Easy					
Surficial mineralization/ enhanced weathering					 - 	Medium					
BECCS* (Terrestrial BiCRS)					 - 	Easy					
Biomass burial (Terrestrial BiCRS)						Medium					
Biochar (Terrestrial BiCRS)					 - 	Medium					
Bio-oil (Terrestrial BiCRS)					 	Easy					
Ocean alkalinity enhancement					 - 	Hard	<div>100s of Millennia</div>				
Ocean fertilization (Ocean BiCRS)					 - 	Hard	<div>shallow ocean</div> <div>deep ocean</div>				
Macroalgae (Ocean BiCRS)					 - 	Hard	<div>shallow ocean</div> <div>deep ocean</div>				
Artificial upwelling and downwelling (Ocean BiCRS)					 - 	Hard	<div>shallow ocean</div> <div>deep ocean</div>				
Engineered											
CDR Approach	Stage of Deployment				Cost	Monitoring, Reporting, and Verification	Permanence				
	 Lab	 Pilot	 Demo	 Commerical			 Decades	 100-200 Years	 200-1,000 Years	 Millennia	 Millions of Years
Direct ocean capture*					 	Medium					
Electrochemical* (DAC)					  	Easy					
Solid solvent/ mineralization* (DAC)					  	Easy					
Solid sorbent* (DAC)					  -   	Easy					
Liquid solvent* (DAC)					  -   	Easy					