The methods of investment projects risk rating were taken into account. It was assessed the level of forestry projects risk of afforestation severely eroded and contaminated lands of Central Polessye according to the methods of expert rating. It was held the analyses of two investment projects (afforestation with pine (Pinus silvestris) and birch (Betula pendula)) according to three scenarios: realistic, optimistic and pessimistic which were determined on the basis of market quotas for greenhouse emission. To take into account the uncertainty in the analysis of cost-benefit it was carried out sensitivity analyses. It has been done the analyses of sensitivity indicators effectiveness of investment project of afforestation with pine according to realistic scenario to changing factors that determine their value and selected the most threatening factors.

**Key words:** Central Polessye, long term agricultural lands, investment project, uncertainty, risk.