Multiple scenario cooperative games is a particular class of cooperative $n$-person vector valued transferable utility games, where a single resource is allocated but the strength of the different coalitions is valued in different scenarios simultaneously or under different states of nature.

These games differ from conventional cooperative games in the dimension of the coalition values, and they also differ from multicommodity games, in that a single good has to be allocated among the players.

The objective of this paper is to propose and analyze different solution concepts for the class of multiple scenario cooperative games from a multicriteria perspective. We deal with the vector valued characteristic function keeping its multidimensional nature and propose solution concepts for these games that extend the existing notions for conventional cooperative games. Moreover and most important, these solutions can be calculated solving multicriteria linear problems for which the appropriate software is available.