In the present work we study the options for parallelization of evolutionary algorithms for multiobjective optimization (MOGA). We provide the overview of existing sequential and parallel MOGAs and we propose three other methods: FCMOGA – MOGA with fuzzy constraints, HIMOGA – heterogeneous island MOGA, and MOGASOLS – MOGA with single objective local search. We test these algorithms on a set of benchmark problems and compare them with existing MOGAs.