Decadal scale variability is found in several ocean and coupled models, idealized or not. Ocean basin modes, based on baroclinic Rossby waves westward propagation and reemission through fast boundary waves, provide a potential mechanism with the right timescale, but baroclinic instability is needed for positive growth rate. Analytical methods based on multiple timescale expansion, and numerical methods for linear stability analyses, within several simplified models (quasigeostrophic, shallow-water), are used to better understand the instability processes and the rectification of the modes by the mean flow. Applications to more realistic setting is underway through generalised stability analysis in primitive equation models.