In this contribution, the updated geoid of Korea with recently obtained high precision gravity measurements is presented. The previous land gravity data in Korea showed locally biased irregular distribution. Especially, this problem was more serious in the mountainous area where the data density was significantly low. The same problem appeared in GPS/Leveling data thus the precision of the geoid could not be improved. From 2008, new gravity and GPS/Leveling data has been collected by the unified control point and survey on the benchmark project which were funded by the national geographic information institute. The newly obtained data has much better distribution and precision so that it could be used for update precision of geoid model. The new precision geoid has been calculated based old and new gravity data and this model showed 5.29cm of precision compared to 927 points of GPS/Leveling data. In case of the hybrid geoid, the degree of fit about 3cm was obtained. With this recent results, the future gravity projects in Korea is also discussed.