V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

- Geographic Information System (GIS) analysis using Spatial Multi Criteria Evaluation (SMCE) in finding the best location for oil palm plantation succeeded to choose Sungai Lilin Sub-District as the best location for oil palm development. Sungai Lilin Sub-District has the total suitability area of 62,246.37 Ha or 20.30% of Musi Banyuasin regency area.

- Based on the calculation area and percentage of suitability map and existing oil palm plantation indicated that area Highly Suitable (S1) for development plantation area is 306,612.42 ha or 21.23% of Musi Banyuasin regency and for the existing plantation area is 223,699.66 ha or 15.49%. Existing plantation do not follow exactly generated suitability classes, most of them situated nearby road and river. Therefore road and river must be given higher weighting criteria for suitability classification.

5.2. Recommendation

- Information about land suitability area can be used by local government in making a map of spatial plans and for the investors or farmers to determine which areas could be suitable for oil palm plantation.

- Productivity of existing plantation in S1, S2 and S3 class should be compared based on fresh bunches fruit data in the field.

- To obtain accurate results in the spatial analysis, data used must be have more detailed scale such as the map scale 1: 25,000.