ABSTRACT:

This study was initiated to develop a suitable approach for land resources management within a sustainable framework. Therefore, a sustainable framework for land resources management and sustainable urban development was based upon the definition of two concepts for sustainability, on which some indicators and measures were defined. For the purpose, a planning process for a sustainable land resources management and development was then outlined in two phases: the evaluation phase for the value of the available resources in the area of concern, classifying areas according to their degree of sensitivity, and determines the available urban growth boundaries, while the second phase was monitoring the urbanization process and land-use change. To guarantee that it takes place on the areas suitable for urban development, complies with the design standards, and according to the designed period, ensuring sustainable urban growth, and attaining resources sustainability.

The case study of Halhul, was considered to develop a land suitability analysis model, and obtain the land resources sustainable model. Therefore, land suitability analysis was used as a tool to classify lands according to the land resources sensitivity, by using the intermediate factor combination method and the multi-criteria evaluation method in aid of GIS analysis. A predefined criteria set was considered, which accounted for socioeconomic, environmental and physical factors, and was integrated into the model analysis under two geo-political scenarios, in order to realize the interaction and influence of both scenarios on the urbanization process and land resources sustainability. As a result, two models were obtained one for each scenario. After that, the area was classified into four zones: highly sensitive areas (HSA), moderately sensitive areas (MSA), low sensitivity areas (LSA), and not sensitive (NS). The design period for the areas suitable for urban development was then predicted. Therefore, the time of the system balance (saturation limit and sustainable limit) was identified, and the most sustainable model was then selected, obtaining the final model on which the urban development boundary was determined to accommodate the two suggested geo-political scenarios.

As a result, a land use plan was suggested. It has considered the analysis results for the sustainable model, the actual land use in the area, and the available land resources.

The most significant outcome of this study was defining a suitable framework for the assessment of land resources' sustainability in rural areas and towns, which guarantees a sustainable urban growth and urbanization process, and conforms to the planning design standards adopted by the MOLG.

In addition to setting an approach suitable for land-use management within a sustainable framework for natural land resources, and monitoring the urbanization process to attain the designed plan.

Whereas the outlined land resources management process obtained from this study can be applied for many other similar cases in the West Bank region.