What is claimed is:

1. An image decoding method performed by an image decoding apparatus, the image decoding method comprising:

obtaining first information indicating whether each output layer set (OLS) specified by a video parameter set (VPS) includes only one layer;

obtaining second information indicating the number of decoded picture buffer (DPB) parameter syntax structures in the VPS, based on the first information;

obtaining the DPB parameter syntax structures in the VPS based on the second information; and

managing a DPB based on the DPB parameter syntax structures.

2. The image decoding method of claim 1,

wherein the second information is obtained from a bitstream, based on the first information not indicating that the OLS specified by the VPS includes only one layer.

3. The image decoding method of claim 1,

wherein, based on the first information indicating that the OLS specified by the VPS includes only one layer, the obtaining of the second information is skipped and the number of DPB parameter syntax structures in the VPS is set to 0.

4. The image decoding method of claim 1,

wherein, based on the first information indicating that the OLS specified by the VPS includes only one layer, the obtaining of the DPB parameter syntax structures in the VPS is skipped.

5. The image decoding method of claim 1,

wherein, based on the first information indicating that the OLS specified by the VPS includes only one layer, a DPB parameter for the OLS is not obtained from the VPS and is obtained from a sequence parameter set (SPS) referred to by the layer included in the OLS.

6. An image encoding method performed by an image encoding apparatus, the image encoding method comprising:

encoding first information indicating whether each output layer set (OLS) specified by a video parameter set (VPS) includes only one layer;

encoding second information indicating the number of decoded picture buffer (DPB) parameter syntax structures in the VPS, based on the first information;

encoding the DPB parameter syntax structures in the VPS based on the number of DPB parameter syntax structures; and

managing a DPB based on the DPB parameter syntax structures.

7. The image encoding method of claim 6,

wherein the second information is encoded in a bitstream, based on the first information not indicating that the OLS specified by the VPS includes only one layer.

8. The image encoding method of claim 6,

wherein, based on the first information indicating that the OLS specified by the VPS includes only one layer, the encoding of the second information is skipped and the number of DPB parameter syntax structures in the VPS is set to 0.

9. The image encoding method of claim 6,

wherein, based on the first information indicating that the OLS specified by the VPS includes only one layer, the encoding of the DPB parameter syntax structures in the VPS is skipped.

10. The image encoding method of claim 6,

wherein, based on the first information indicating that the OLS specified by the VPS includes only one layer, a DPB parameter for the OLS is not encoded in the VPS and is encoded in a sequence parameter set (SPS) referred to by the layer included in the OLS.

11. A non-transitory computer readable recording medium storing a bitstream generated by the image encoding method of claim 6.

12. A method of transmitting a bitstream generated by an image encoding method, the image encoding method comprising:

encoding first information indicating whether each output layer set (OLS) specified by a video parameter set (VPS) includes only one layer;

encoding second information indicating the number of decoded picture buffer (DPB) parameter syntax structures in the VPS, based on the first information;

encoding the DPB parameter syntax structures in the VPS based on the number of DPB

parameter syntax structures; and

managing a DPB based on the DPB parameter syntax structures.