What is claimed is:

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

obtaining image information including residual information through a bitstream;

generating reconstructed samples of a current picture based on the residual information; and

generating modified reconstructed samples based on an in-loop filtering process for the reconstructed samples,

wherein the image information includes a sequence parameter set (SPS) and a picture header,

wherein the SPS includes a subpicture present flag indicating whether subpicture related information is included in the SPS, and

when the subpicture present flag indicates that the subpicture related information is included in the SPS, it is determined that information on positions of virtual boundaries is not included in the picture header but is included in the SPS.

2. The image decoding method of claim 1, wherein the information on the positions of the virtual boundaries comprises information on positions of vertical virtual boundaries and information on positions of horizontal virtual boundaries.

3. The image decoding method of claim 1, wherein the current picture comprises subpictures and tiles, and

wherein coding tree units (CTUs) in one tile belong to the same subpicture.

4. The image decoding method of claim 1, wherein the current picture comprises subpictures and tiles, and

wherein coding tree units (CTUs) in one subpicture belong to the same tile.

5. The image decoding method of claim 1, wherein the SPS comprises an SPS virtual boundary present flag related to whether the SPS the information on the positions of the virtual boundaries, and

wherein a value of the SPS virtual boundary present flag is equal to 1 when the subpicture present flag indicates that the subpicture related information is included in the SPS.

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

generating residual samples for a current block;

generating residual information based on the residual samples for the current block;

generating in-loop filtering related information for reconstructed samples of a current picture; and

encoding image information including the residual information and the in-loop filtering related information,

wherein the image information includes a sequence parameter set (SPS)and a picture header,

wherein the SPS includes a subpicture present flag indicating whether subpicture related information is included in the SPS, and

wherein based on the subpicture present flag indicating that the subpicture related information is included in the SPS, it is determined information on positions of virtual boundaries is not included in the picture header but is included in the SPS.

7. A non-transitory computer-readable storage medium storing a bitstream generated by an image encoding method, the image encoding method comprising:

generating residual samples for a current block;

generating residual information based on the residual samples for the current block;

generating in-loop filtering related information for reconstructed samples of a current picture; and

encoding image information including the residual information and the in-loop filtering related information,

wherein the image information includes a sequence parameter set (SPS) and a picture header,

wherein the SPS includes a subpicture present flag indicating whether subpicture related information is included in the SPS, and

wherein based on the subpicture present flag indicating that the subpicture related information is included in the SPS, it is determined that information on positions of virtual boundaries is not included in the picture header but is included in the SPS.

8. A transmission method of data for an image, comprising:

obtaining a bitstream for the image, wherein the bitstream is generated based on generating residual samples for a current block, generating residual information based on the residual samples for the current block, generating in-loop filtering related information for reconstructed samples of a current picture, and encoding image information including the residual information and the in-loop filtering related information; and

transmitting the data comprising the bitstream,

wherein the image information includes a sequence parameter set (SPS) and a picture header,

wherein the SPS includes a subpicture present flag indicating whether subpicture related information is included in the SPS, and

wherein based on the subpicture present flag indicating that the subpicture related information is included in the SPS, it is determined that information on positions of virtual boundaries is not included in the picture header but is included in the SPS.