What is claimed is:

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

obtaining image information including network abstraction layer (NAL) unit type related information from a bitstream;

determining NAL unit types for NAL units in a current picture based on the NAL unit type related information; and

decoding the current picture based on the NAL unit types,

wherein the NAL unit type related information is information on whether the current picture has mixed NAL unit types,

wherein based on the NAL unit type related information for the current picture having the mixed NAL unit types, a first NAL unit type for a first slice of the current picture is different from a second NAL unit type for a second slice of the current picture, and

wherein based on the first NAL unit type being an instantaneous decoding refresh (IDR) NAL unit type, a value of information related to signaling a reference picture list is equal to 1.

2. The method of claim 1, wherein based on the NAL unit type related information for the current picture having the mixed NAL unit types, the first NAL unit type has a leading picture NAL unit type, and the second NAL unit type has a non-intra random access point (IRAP) NAL unit type or a non-leading picture NAL unit type.

3. The method of claim 2, wherein the leading picture NAL unit type includes a random access decodable leading (RADL) NAL unit type or a random access skipped leading (RASL) NAL unit type, and

wherein the non-IRAP NAL unit type or the non-leading picture NAL unit type includes a trail NAL unit type or a Step-wise Temporal Sub-layer Access (STSA) NAL unit type.

4. The method of claim 1, wherein based on the NAL unit type related information for the current picture having no mixed NAL unit types, the first NAL unit type for the first slice of the current picture is the same as the second NAL unit type for the second slice of the current picture.

5. The method of claim 1, wherein the information related to signaling the reference picture list is information on whether a syntax element for signaling of the reference picture list is present

in a slice header of the first slice, and

wherein based on the value of the information related to signaling the reference picture list being equal to 1, the syntax element for the signaling of the reference picture list is present in the slice header of the first slice having the IDR NAL unit type.

6. The method of claim 1, wherein the decoding of the current picture comprises:

for the first slice in the current picture determined to have a first NAL unit type and the second slice in the current picture determined to have a second NAL unit type,

decoding the first slice based on the first NAL unit type, and decoding the second slice based on the second NAL unit type.

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

determining NAL unit types for NAL units in a current picture;

generating NAL unit type related information based on the NAL unit types; and

encoding image information including the NAL unit type related information,

wherein the NAL unit type related information is information on whether the current picture has mixed NAL unit types,

wherein based on the NAL unit type related information for the current picture having the mixed NAL unit types, a first NAL unit type for a first slice of the current picture is different from a second NAL unit type for a second slice of the current picture have different NAL unit types, and

wherein based on the first NAL unit type being an instantaneous decoding refresh (IDR) NAL unit type, a value of information related to signaling a reference picture list is equal to 1.

8. The method of claim 7, wherein based on the NAL unit type related information for the current picture having mixed NAL unit types, the first NAL unit type has a leading picture NAL unit type, and the second NAL unit type has a non-intra random access point (IRAP) NAL unit type or a non-leading picture NAL unit type.

9. The method of claim 8, wherein the leading picture NAL unit type includes a random access decodable leading (RADL) NAL unit type or a random access skipped leading (RASL) NAL unit type, and

wherein the non-IRAP NAL unit type or the non-leading picture NAL unit type includes a trail NAL unit type or a Step-wise Temporal Sub-layer Access (STSA) NAL unit type.

10. The method of claim 7, wherein based on the NAL unit type related information for the current picture having no mixed NAL unit types, the first NAL unit type for the first slice of the current picture is the same as the second NAL unit type for the second slice of the current picture.

11. The method of claim 7, wherein the information related to signaling the reference picture list is information on whether a syntax element for signaling of the reference picture list is present in a slice header of the first slice, and

wherein based on the value of the information related to signaling the reference picture list being equal to 1, the syntax element for the signaling of the reference picture list is present in the slice header of the first slice having the IDR NAL unit type.

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

determining NAL unit types for NAL units in a current picture;

generating NAL unit type related information based on the NAL unit types; and

encoding image information including the NAL unit type related information,

wherein the NAL unit type related information is information on whether the current picture has mixed NAL unit types,

wherein based on the NAL unit type related information for the current picture having the mixed NAL unit types, a first NAL unit type for a first slice of the current picture is different from a second NAL unit type for a second slice of the current picture, and

wherein based on the first NAL unit type being an instantaneous decoding refresh (IDR) NAL unit type, a value of information related to signaling a reference picture list is equal to 1.

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

obtaining a bitstream for the image, wherein the bitstream is generated based on determining NAL unit types for NAL units in a current picture, generating NAL unit type related information based on the NAL unit types, and encoding image information including the NAL unit type related information; and

transmitting the data comprising the bitstream,

wherein the NAL unit type related information is information on whether the current picture has mixed NAL unit types,

wherein based on the NAL unit type related information for the current picture having the

mixed NAL unit types, a first NAL unit type for a first slice of the current picture is different from a second NAL unit type for a second slice of the current picture, and

wherein based on the first NAL unit type being an instantaneous decoding refresh (IDR) NAL unit type, a value of information related to signaling a reference picture list is equal to 1.