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(54) **METHODS AND APPARATUSES FOR  
ENCODING AND DECODING MOTION  
VECTOR DIFFERENCE USING SEQUENCE  
MMVD INFORMATION**

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**ABSTRACT**

Provided is a video decoding method including: obtaining, from a sequence parameter set, sequence merge mode with motion vector difference (sequence MMVD) information indicating whether an MMVD mode is applicable in a current sequence; when the MMVD mode is applicable according to the sequence MMVD information, obtaining, from a bitstream, first MMVD information indicating whether the MMVD mode is applied in a first inter prediction mode for a current block included in the current sequence; when the MMVD mode is applicable in the first inter prediction mode according to the first MMVD information, reconstructing a motion vector of the current block which is to be used in the first inter prediction mode, by using a distance of a motion vector difference and a direction of a motion vector difference obtained from the bitstream; and reconstructing the current block by using the motion vector of the current block.

