

$$I_{O \min(s)j} = \min \left[\frac{\sum_{k=1}^i GHG O_{2007\ jk}}{\sum_{k=1}^i P_{2007\ jk}}; \frac{\sum_{k=1}^i GHG O_{2008\ jk}}{\sum_{k=1}^i P_{2008\ jk}}; \frac{\sum_{k=1}^i GHG O_{2009\ jk}}{\sum_{k=1}^i P_{2009\ jk}}; \frac{\sum_{k=1}^i GHG O_{2010\ jk}}{\sum_{k=1}^i P_{2010\ jk}} \right]$$