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中国农业面源污染物排放量计算及中长期预测

Calculation of agricultural non-point source pollution emission in China and its long-term forecast

关键词: [农业面源污染](#) [规模化畜禽养殖](#) [种植业](#) [预测](#)

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摘要: 利用第一次全国污染源普查数据,计算了我国内地31个省市自治区农业面源污染排放量,在此基础上,预测了2010—2030年农业面源污染情况.结果表明,2007年,我国农业面源污染的污染物总排放量为 1057×10^4 t,其中,COD排放量为 825.9×10^4 t,总氮为 187.2×10^4 t,总磷为 21.6×10^4 t,氨氮为 22.4×10^4 t.如果不加大对面源污染的治理力度,2020年前我国农业面源污染有加刷的趋势.在高排放情景下,2030年农业面源污染中COD排放量可能上升到 1466.5×10^4 t,面源污染需引起高度重视.目前,东部沿海地区是我国农业面源污染的主要排放区,但未来我国农业面源污染排放的空间分布可能趋于均衡.

Abstract: With the First National Pollution Source Census in 2007, this paper calculates the agricultural non-point source pollution emissions for all 31 provinces in mainland China. Based on the results, the emission situation during 2010 to 2030 for each province is predicted. Some conclusions are drawn as follows. In 2007, the total emission of agricultural non-point source pollution in China is 1057×10^4 t, within which COD emission is 825.9×10^4 t, TN 187.2×10^4 t, TP 21.6×10^4 t, and NH_4^+-N about 22.4×10^4 t. If more stringent pollution control efforts were not implemented, the pollution of agricultural non-point source would further exacerbate before 2020. Under high-emission scenario, COD emission of agricultural non-point source pollution may reach 1466.5×10^4 t, highlighting the importance of agricultural non-point source pollution. The emission of agricultural non-point source pollution has spatial differentiation and eastern coastal areas contribute larger proportion of the total emission. However, in the future, the spatial distribution of agricultural non-point source pollution emission may tend to be balanced.

Key words: [agricultural non-point source pollution](#) [large-scale livestock and poultry](#) [planting](#) [prediction](#)

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