An assessment of the efficiency and effectiveness of the Working for Water NBAL mapping, contract teams and clearing of Acacia mearnsii

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ABSTRACT

Working for Water (WfW) works to fulfil their dual mandate of protecting ecosystem services and creating employment opportunities for poor communities. There have been many successes but evidence is increasing regarding the inefficiencies at project and site scales. The study was undertaken in the Eastern Cape, South Africa, at a farm called Ann's Villa situated in the Kommadagga valley, at the foot of the northern side of the Zuurberg pass. The study sought to assess the efficiency of the WfW mapping of natural biological aliens (NBAL), of contract teams and the effectiveness of the clearing methods employed to clear Acacia mearnsii. To achieve this, WfW mapping was analysed, contract team dynamics of the different task groups were observed and assessed and various Acacia mearnsii and indigenous plant variables were measured pre- and post-clearing of A. mearnsii. The first key finding was that overall the WfW NBAL mapping was inaccurate, with WfW A. mearnsii percentage cover estimations significantly over-estimated. Acacia mearnsii cover over-estimations resulted in fruitless expenditure as contracts were more expensive than necessary. Cover under-estimations also led to the inability to fulfill contractual obligations and the subsequent halting of the clearing of a large portion the study area. It was recommended that the NBAL mapping as well as the cover estimations of NBALs be conducted more rigorously, with expert assistance where skills are lacking, to avoid the associated fruitless expenditure. The second key finding was that WfW contract teams were largely inefficient, as a result of waiting, stemming from the lack of continuity in work. There was a strong positive relationship between subgroup chainsaw operator (CO) to stacker ratio and subgroup CO to stacker efficiency ratio. These inefficiencies meant that a mean of 58±67% of the total money spent per team resulted in fruitless expenditure. It was recommend that contract teams be organised to promote the continuity of work and that the current high stacker to CO ratios be reversed to increase efficiency and reduce fruitless expenditures. The third key finding was that overall the WfW methods of clearing A. mearnsii were 95% effective with a 90% removal success. The last key finding was that initial clearing operations had a largely insignificant impact on indigenous plant biodiversity. It was recommended that post-clearing inspection of quality control is conducted more rigorously and that penalties be implemented to deter contract teams from cutting indigenous species.