

## OPSOMMING

'n Oorsig van voorheen gepubliseerde artikels dui daarop dat versteuring as gevolg van mynbou aktiwiteite eers werklik gedurende die oplewing van 'n geesdriftige omgewingsbewustheid tydens die vroeë tagtiger jare na vore gekom het. Alhoewel die hervestiging van plantegroei in sulke gebiede reeds in die dertiger-jare uitgevoer is was dit eers met die aanbreek van streng regulasies en wette gedurende die vroeë fyftiger-jare dat daar genoeg finansiële motivering was om te verseker dat organisasies volhoubaarheid toepas en versteurde gebiede rehabiliteer. Die meerderheid van hierdie vroeë navorsing was oorsee toegepas en het baie selde met die inheemse stand van plantegroei en ander geassosieerde aspekte, rekening gehou. Boonop was hierdie navorsing slegs op die rehabilitasie en hervestiging van plantegroei op goudmynhope van toepassing.

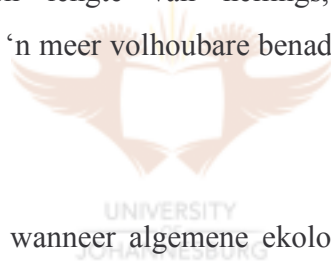
Ander navorsing het ook getoon dat verskeie metodes toegepas is met betrekking tot grondstabiliteit en chemiese toetse ten opsigte van stof-bekamping in versteurde gebiede. Dit het uiteindelik gelei tot die opinie dat die doeltreffendste metode om gronderosie en ander nadelige gevolge geassosieer met mynbou aktiwiteite te bekamp, die hervestiging van plantegroei is. Internasionale wetgewing wat gedurende die fyftigerjare gepromulgeer is het vereis dat versteurde gebiede weens mynbou aktiwiteit plantegroei moes hervestig om verdere gevolge soos gronderosie en kontaminasie te verhoed. Soortgelyke wetgewing was in Suid-Afrika gepromulgeer nl. die Wet op Myne en Bedrywe No 27 van 1956, wat onder andere gefokus het op die hervestiging van plantegroei teen mynhope. In 1980 het hierdie wetgewing veel strenger geword en was daar 'n algehele konsensus dat hervestiging van plantegroei nie al die gevolge en probleme geassosieer met post-mynbouaktiwiteite kon bekamp of verhoed nie.

Dit was eers in 1984 nadat Suid-Afrikaanse navorsing toegepas is, dat daar besef is dat klimaat, grondtipe, topografie, geologie en plantegroei almal 'n belangrike rol in die sukses van die rehabilitasie proses speel. Hierdie navorsing het talle myne in Suid-Afrika asook myne binne die grense van Leboa en Ka Ngwane ingesluit. Dit het gelei tot 'n

grootskaalse omskakeling synde die toepassing van rehabilitasie op versteurde mynbougebiede.

Dit is bewys dat spesiale omstandighede op gebieds-spesifieke eienskappe van toepassing was en dat verskeie omgewings verskillende invloede ondervind. Daar is wel met hierdie idée ge-eksperimenteer en gevind dat gebieds-spesifieke oplossings suksesvoller sou wees indien 'n holistiese seining t.o.v. die rehabilitasie proses geneem word.

Van hierdie navorsing is afgelei dat inheemse gras-spesies doeltreffender sou wees as vroeëre metodes, maar dat dit nie al die geassosiëerde probleme sou oplos nie. Weereens is daar terugverwys na 'n holistiese benadering wat beide navorsers en organiseerders moes volg om effektiewe rehabilitasie te bewerkstellig. Hierdie benadering sou beteken dat aspekte wat voorheen as "minder belangrik" beskou is in ag geneem moet word; soos byvoorbeeld die gradiënt en lengte van hellings, grondtemperatuur en ander geassosiëerde aspekte. Dit het 'n meer volhoubare benadering tot rehabilitasie tot gevolg gehad.



Hierdie studie dui daarop dat wanneer algemene ekologiese beginsels in 'n holistiese model verenig word dit die oplossing tot talle geassosiëerde rehabilitasie probleme kan bied. Dit is ook bewys dat alle moontlike pogings aangewend moet word om 'n versteurde gebied so te hervestig dat dit die oorspronklike toestand reflekteer en soortgelyke opbrengste lewer. Indien hierdie benadering gevolg word word 'n koste-effektiewe en volhoubare habitat verseker waarin ekologiese faktore tred hou met die natuurlike vatbaarheid van die omgewing. Dit impliseer uiteindelik dat die algemene terminologie van toepassing op rehabilitasie hersien moet word om alle aspekte van beide die proses en die omgewing in te sluit. Die rehabilitasiepraktyk moet 'n holistiese benadering volg met die einddoel volhoubaarheid en koste-effektiwiteit as motivering vir mynbou-organisasies.

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