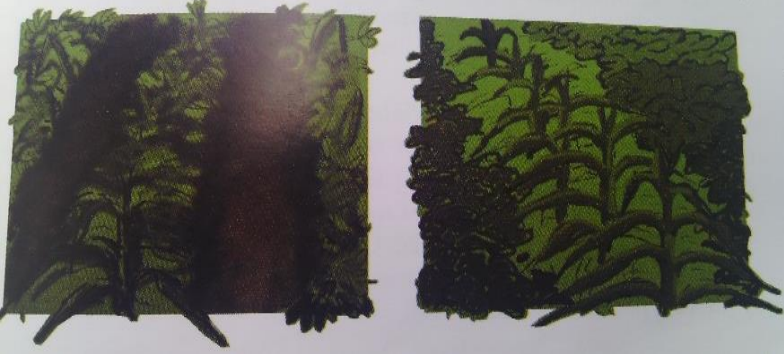


Multiple Cropping

Désignations	Informations techniques, institutionnelles, culturelles, économiques
Nom commun	Multiple Cropping
Nom local	
Acteurs de mise en œuvre (nom, adresse, téléphone, fax, BP, E-mail)	<p>Kingsley Kwako Amoako Environment, Land and Water Management Unit Directorate of Crop Services Ministry of Food and Agriculture 0244599596 kingkwaw@yahoo.com</p> <p>Vincent Subbey Trax Ghana Box 230, Bolgatanga 02380869697 info@tfsr.org or vincnetsubbey@hotmail.com</p>
Pilier (1 à 5) : mettre les intitulés des piliers	Pilier 3 : Augmentation durable de la production alimentaire, des revenus des ménages vulnérables et de leur accès aux aliments
Secteur d'activités (Foresterie, agriculture, sécurité alimentaire, élevage, ...) en fonction du pilier choisi	Agriculture
Type de chocs (sécheresse, inondation, conflits civiles, conflits communautaires, ravageurs, prédateurs, maladies, incendies, Feux de brousse, orpaillage, déforestation, ...) auxquels la pratique apporte une réponse	<p>Sécheresse, ravageurs,</p> <ul style="list-style-type: none"> - Water erosion, runoff and adverse environmental conditions (such as droughts) that cause crop failure - Loss of soil nutrients and vegetation cover
Zones d'application actuelles	
Zones potentielles d'application (par exemple zones agro-écologiques) : décrire les types de sols, la pluviométrie, ...	All agro-ecological zones in Ghana
Description de l'environnement humain /genre	<p>All smallholder farmers</p> <p>Targeted communities :</p> <ul style="list-style-type: none"> - Organization of producers - Private
Objectif	<ul style="list-style-type: none"> - Multi-canopy protects the soil from raindrop impact and reduces erosion - Reduction in sediment and nutrient transport into streams - Enhances infiltration of water - Provides all year round cover - Sequester carbon above ground

Désignations	Informations techniques, institutionnelles, culturelles, économiques
Description	<ul style="list-style-type: none"> - Involves growing different arable crops and/or other crops on a given field at the same time. - Method involves either growing of two or more crops on the same piece of land within the same year but planting one after the harvesting of the other (sequential cropping) or growing two or more crops on the same piece of land at the same time (intercropping). - The mixture is done in such a way that one crop fixes nitrogen which becomes available to the other food crops. - Multiple cropping can also be mixed intercropping (where the crops are planted without any row arrangement) or row intercropping (where all crops are planted in well-defined rows) <p>Some of the mixtures include millet/groundnut, millet or sorghum/soybean, maize/cowpea, maize/soybean)</p>
Type de capacité (absorption, anticipation, adaptation, transformation) : comment la pratique agit pour renforcer la capacité ?	Adaptation
Manière dont la BP renforce la résilience des populations	<p>Provide fast and extended period of protection of soil from erosion and raindrop impacts</p> <p>Provide vegetation cover to insulate soils against excessive sunshine and protection of micro-nutrients</p> <p>Improve soil compost and nutrients</p>
Illustrations (photos documentées)	
Conseils pratiques de mise en œuvre	<ul style="list-style-type: none"> - Can be done in all ecological zones - Sequential cropping is more appropriate in areas with bimodal rainfall regime - Intercropping are appropriate in legume and non-legume mix - Row intercropping is recommended
Avantages / effets / impacts	<ul style="list-style-type: none"> - Increased land productivity and soil protection from water and wind erosion - Cushions farmers against total crop failures as adverse growing conditions might not affect all the different crops equally. - The system is a very good strategy for food security and reduction of pest damage.

Désignations	Informations techniques, institutionnelles, culturelles, économiques
Contraintes liées à la mise en œuvre	<ul style="list-style-type: none"> - Mixed intercropping makes weeding and several other farm operations difficult. - Cultivation of more than one crop is relatively expensive especially in procuring required inputs
Mesures nécessaires à la levée des contraintes	<ul style="list-style-type: none"> - Adoption of row intercropping - Farmers should use local resources to cut cost of cultivation
Coût de réalisation	Seeds and other inputs GHS 500/ha Labour GHS 300/ha
Défis et perspectives pour la mise à l'échelle	
Echelle (initial, Maturité et léthargie) dans le processus de diffusion et durabilité	Lethargy
Recommandations pour la diffusion	<ul style="list-style-type: none"> - Strengthening extension services and training - Broadcasting documentaries

Bibliographie

Boahen P., Dartey, B.A., Dogbe, G.D., Boadi, A., Triomohe, B., Daamgard-Lassen, S., and Ashburner, J. (2007). *Conservation Agriculture as Practised in Ghana*. Nairobi, African Conservation Tillage Network, centre de cooperation international de Recherche Agronomique pour le Development. Food and Agriculture Organization of the United Nations.

EPA (2011). *Manual/Guidelines for Proven SLM Technologies for Landusers and Extension Service Providers*. Environmental Protection Agency, Ministry of Environment, Science and Technology, Accra, Ghana.

FAO (1965). *Soil Erosion by Water: Some Measure for its Control on Cultivated Lands*. Food and Agriculture Organization of the United Nations, Rome, Italy.

Soil Research Institute (1980). Annual Report, SRI, Kwadaso, Kumasi.

Syers, J.K. (1997). Managing soils for long term productivity. *Phil. Trans. R. Soc. Land B*, 352, 1011-1021.