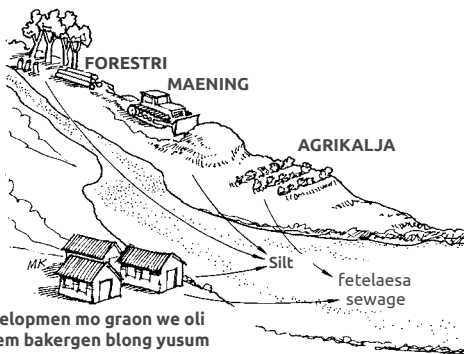


## Ol niutrien mo sedimen i wanem?

Wan niutrien hemi eni kaen samting we wan plant o animol i nidim hem blong kakae. Ol samting we i laef, ol plant mo ol animol, oli nidim niutrien. Taem yumi tokbaot ifek long olgeta samting long ol wota blong kos, yumi konsen bigwan wetem ol niutrien we oli disolv long wota o wota i stap karem olgeta.

Silt hemi ol smolsmol samting we wota i sav karem olgeta: maet oli foldaon insaed long wota mo setel long botom blong solwota olsem ol sedimen.

Ol niutrien mo silt oli stap insaed long klosap evri wota blong kos mo ol problem i kam antap nomo taem i gat plante tumas long olgeta. Ren i wasem niutrien mo silt aot long graon igo long solwota mo ol riva, wan proses we plante taem oli kolek runoff.



Developmen mo graon we oli tekem bakergen blong yusum

## Ol niutrien mo sedimen oli kamaot long wea ples?

Klosap evri graon long ol aelan kaontri blong Pasifik hemi salo. Taem oli tekemaot ol tri mo bus mo klinim graon blong bildim haos o mekem fam, graon we i stap hemi no gat eni kaen proteksen. Ren hemi wasem ol smolsmol pis aot long graon olsem silt igo daon long hil igo long solwota. Silt i kamaot long plante ples olsem runoff, aot long graon we oli tekem i kambak (Reclamation), ol ples we oli mekem developmen, ol maen, agrikalja mo forestri.

Ol sistsit blong man wetem animol oli kolek hem sewage. Hemi gat insaed long hem ol bacteria o virus (olgeta bebet we i mekem ol plant, ol man o ol animol i sik) wetem ol niutrien. Sewage hemi go insaed long ol wota blong kos aot long ol fam, ol septik tang we oli fulap tumas mo ol sistem blong sewage we oli no stret.





## Wanem kaen problem ol bigfala kwantiti blong niutrien mo sedimen oli mekem?

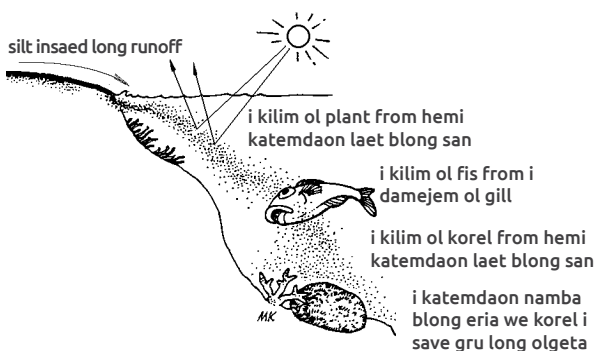
Niutrien mo sedimen oli mekem problem long plante long ol animol mo plant blong solwota, be bigfala problem hemi long ol korel rif. Hemia i from korel rif oli save gru nomo sapos wota i klia mo hemi no gat sedimen long hem. Ol smolsmol plant, we nem blong olgeta i zooxanthellae, we oli stap laef insaed long mit blong ol korel, oli nidim laet blong san blong produsim kakae we oli serem wetem ol korel.

Silt hemi blokem laet blong san blong i no kasem ol korel, be sem taem hemi sidaon long botom blong solwota olsem sedimen. Ol sedimen maet oli kavremap ol ples we oli strong, minim se oli no stret blong niu korel i save setel mo gru long hem. Taem i gat tumas silt long wota i save spoelem ol fis taem i katem ol gill blong olgeta.

Plante tumas niutrien, plante taem aot long ol fetelaesa mo sewage, oli mekem ol plant blong gru kwiktaem. Long sam lagun, si wid blong solwota maet oli gru kwiktaem bitim ol korel mo tekem ol ples we maet ol niu korel oli save gru long olgeta. Ol smolsmol plant (nem blong olgeta epiphytes) oli kavremap ol lif blong si gras mo laet blong san i no save kasem olgeta. Ol tik mat blong si wid ia maet oli gru ova long ol had korel mo sam bacteria aot long sewage maet i givim wan sik long korel we nem blong hem i White Band Disease.

Taem ol bigfala kwantiti blong ol plant oli ded mo oli stap roten, ol bebek, nem blong olgeta bacteria, oli yusum ol oxygen we i disolv long wota. Ifek ia, we nem blong hem i eutrophication, maet hemi kilim i ded plante long ol spisis blong solwota, inkludim fis.

Ol bigfala kwantiti blong ol niutrien maet oli alaoem namba blong ol smolsmol plant we oli stap flot (phytoplankton) blong kam bigwan long ol grup we oli kolek blooms. Sam long olgeta bloom, we nem blong olgeta i harmful algal blooms (o HABs) oli denjares long laef blong solwota mo long ol man tu, mo olgeta oli inkludim kaen ia we hemi risponsibel blong posen fis we nem blong hem i ciguatera.



## Hao nao yumi save kontrolem ol niutrien mo sedimen long ol wota blong kos?

Taem oli no manajem gud yus blong graon hemi save mekem i gat tumas sedimen mo niutrien insaed long runoff mo ol wota blong kos. Namba wan ansa i blong ol otoriti blong gavman oli wok wetem ol fama, olgeta we oli mekem developmen, ol komiuniti we i stap long kos blong promotem ol yus blong graon we i sastenebol, long wan fasin we oli kolek Integrated Coastal Zone Management. Sam aksen we i posibil i inkludim:

### → Impruvum fasin blong aotem sewage

Rabis wota aot long ol ples blong tritim sewage mo wota we i kamaot long ol septik tang (ol tang anda long graon we ol bacteria i brekem daon sewage) oli no save alaoem olgeta blong go insaed long ol riva mo wota blong kos. Long sam ples, oli bin planem ol banana mo sam nara kaen kakae klosap long ol ples we rabis wota ia i kamaot; olgeta plant ia oli yusum ol niutrien bifo oli save kasem solwota.

### → Katemdaon runoff long ol fam

Wota we i stap ron ova long ol fam plante taem hemi gat ol kemikol insaed long hem we oli blong kilim ol rabis gras mo animol mo tu i gat ol fetelaesa we oli gat niutrien long olgeta we nem blong olgeta i nitrogen mo phosphorus. I gud sapos oli planem ol plant mo ol kakae long ol eria we i flat raon long hil long wanem oli kolek contour farming (luk long pikja). Oli save planem raon long ol flat eria o step olgeta tri, blong katemdaon denja blong erosen, lan i glis mo wota i kam fulap wetem silt.

### → Putum wan ban blong no tekem sanbis aot long sanbis long so

Long sam aelan kaontri blong Pasifik oli tekemaot sanbis long ol so. Hemia i mekem laen blong so i brokbrok (erosion) mo mekem ol laen blong silt i go insaed long wota blong kos.

### → Putum wan ban blong no tekem sanbis aot long sanbis long so

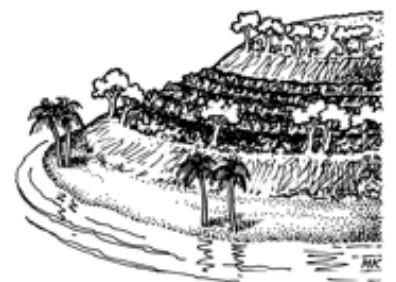
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### → Protektem o planem ol laen blong tri klosap long ol riva mo graon klosap long so

Oli mas protektem ol tri we oli stap gru long graon we i klosap long so mo planem bakegen ol eria we i nomo gat ol tri. Ol najoral plant, olsem ol natongtong long ej blong solwota, oli no alaoem erosen mo oli blokem ol niutrien mo sedimen blong no kasem solwota.

### → Putum ol fanis blong stap smoltaem blong blokem sedimen raon long ol ples we oli stap bild long ol eria long kos

Taem oli stap bild long ol eria long kos o oli tekem graon i kambak (reclamation) oli sud putum ol fanis blong holem sedimen, olsem ol fanis waea we i gat ol smolsmol hol long hem we oli folem ol laen blong graon. Samtaem ol man oli bin yusum bel blong ol gras we i drae o ol suga ken stamba we i drae blong kasem silt bifo hemi go long solwota.



Contour farming, wan fasin blong fam we ol plant i stap long ol flat ples wetem tri long ej, hemi help blong blokem erosen, lan i glis mo wota i fulap wetem silt.



Gaed mo ol toksave ia hemi wok blong SPC ([www.spc.int](http://www.spc.int)) we i wok tugeta wetem LMMA ([www.lmmanetwork.org](http://www.lmmanetwork.org)) blong helpem pipol we oli wok wetem ol fising komiuniti blong givim advaes long ol defren mo gud fiseris manajem joes. Blong kat mo ekspleneson long ol toktok we istap insaed long Gaed mo ol toksave ia, yu save luk long gaed buk. Foto : Mathieu Juncker



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