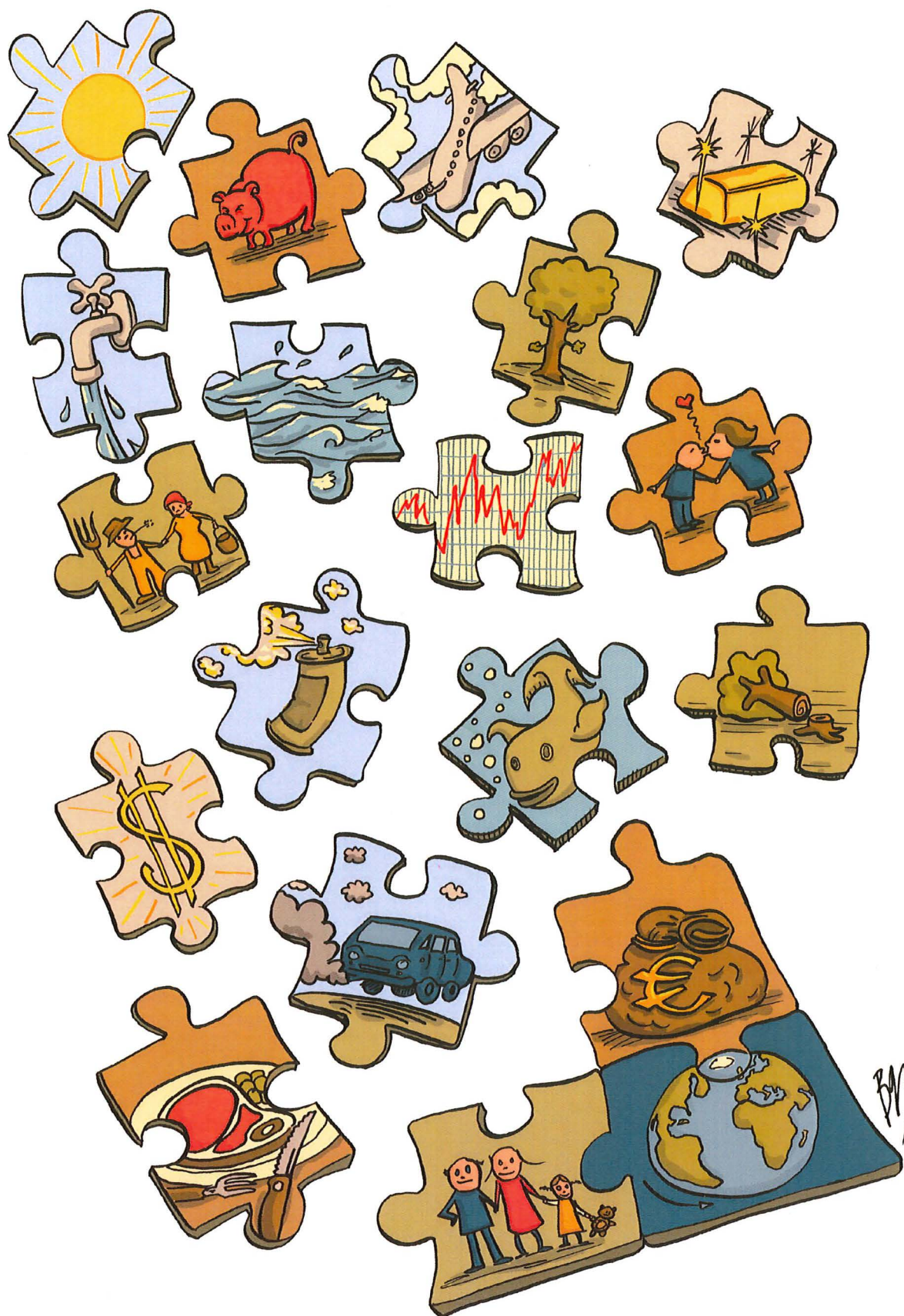


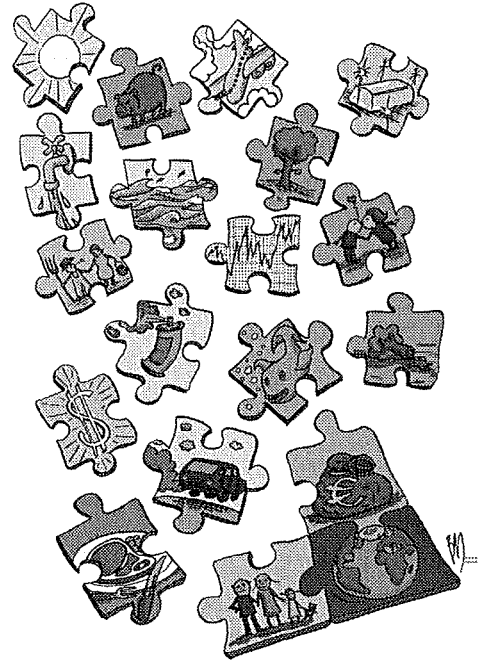
Cursus Duurzaam Afwegen



In opdracht van ministerie van Landbouw, Natuur en Voedselkwaliteit, Directie Natuur: Roel van Raaij
Door Instituut voor Maatschappelijke Innovatie: Guido Enthoven, Sandra Geisler

Module Systemdenken

1. Denken
2. Waarnemen
3. Doen
4. Welke competenties heb je nodig voor Systemdenken?



1. Denken

Ontwikkelingen

Oefening 1

- Schets de wereld van 50 jaar geleden

Heerstijheid, meisjes roken, eerste TV, auto bijzonder
keerde oorlog, seksuele revolutie, traditionele geslachten
niet mobil, stad-dorp; uren, traditioneel.
wederopbouw, wijkhanding.

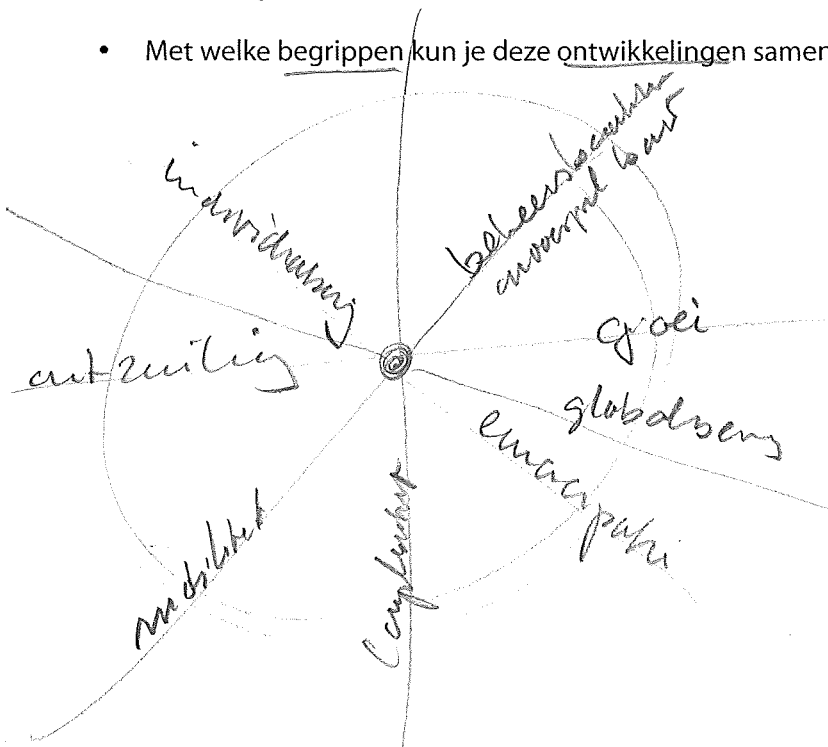
- Welke ontwikkelingen hebben zich sindsdien voorgedaan?

- individualisering
- groei
- industrialisatie

Computer, ICT, Internet

"Chaos" mobiliteit
afname kleiner
sociale mobiliteit.

- Met welke begrippen kun je deze ontwikkelingen samenvatten?



breken tradities
mandyland
technisering
groei 50-...

Complex
socialisatie
medicalisering
man-vrouw



Lineair denken versus Systeemdenken

Oefening 2

Hierna zijn enkele plaatjes weergegeven die een uitdrukking zijn van ons denken. Hierbij wordt een onderscheid gemaakt tussen Lineair denken en Systeemdenken.

Let op:

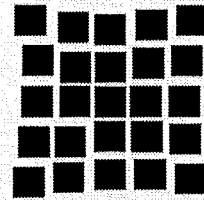
Het verschil tussen Lineair denken en Systeemdenken is hier erg zwart wit geschetst. Het gaat er niet om het Systeemdenken boven het Lineair denken te verheffen, maar meer inzicht in beide vormen van denken te krijgen, zodat we het eenvoudiger herkennen.

- Wat zeggen de plaatjes over ons denken?
- Geef een beschrijving van wat je op het plaatje waarneemt

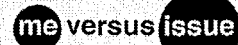
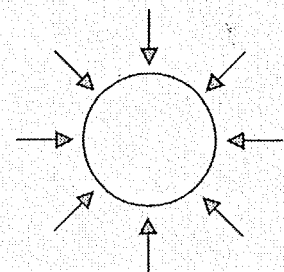


10 overtuigingen vanuit Lineair denken

1. *"Voor elk probleem is er een oplossing".*
Overtuiging gebaseerd op de kracht van probleem oplossen.
Probleemoplossend
2. *"We kunnen iets begrijpen door het in afzonderlijke delen op te splitsen".*
We begrijpen het geheel door naar de onderdelen te kijken.
Analyse
3. *"Het geheel (van iets) is nooit meer dan de som der delen".*
Er ontstaan of komen geen nieuwe delen bij.
Reductionisme
4. *"De meeste processen zijn lineair".*
Gebeurtenissen en verschijnselen hebben een definieerbaar begin- en eindpunt.
Oorzaak - Gevolg
5. *"De meeste problemen en gebeurtenissen staan op zichzelf of worden als zodanig waargenomen en worden als afzonderlijk en gescheiden behandeld".*
Atomisme
6. *"Het is vanzelfsprekend om de focus te beperken; dat is niet mijn zaak of aangelegenheid".*
We kijken niet verder en voelen ons niet betrokken bij zaken die buiten ons liggen en ons niet direct aangaan.
7. *"We kunnen iets definiëren of waarderen door na te gaan wat iets niet is, of vanuit het tegengestelde".*
Een overtuiging dat de economie gescheiden is van de ecologie, mensen gescheiden zijn van de natuur en feiten gescheiden zijn van waarden.
Dualisme
8. *"Objectiviteit is mogelijk en noodzakelijk om problemen en gebeurtenissen te begrijpen".*
Het is belangrijk om onze gevoelens en waarden uit te sluiten tijdens analyses en oordeel.
Objectivisme



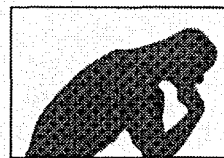
$$"2 + 2 = 4"$$



9. *"We kunnen dingen het best begrijpen vanuit de ratio. Een andere benadering is niet relevant".*

Onze intuïtie moeten we buitenspel laten.

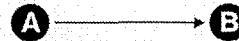
Rationalisme



10. *"Inzicht in de huidige situatie is een voorspeller voor de toekomst".*

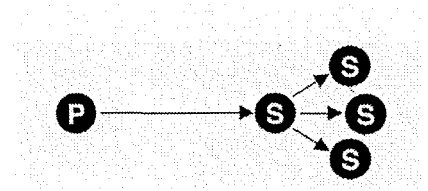
Overtuigd van zekerheid, voorspelbaarheid en beheersbaarheid.

Determinisme

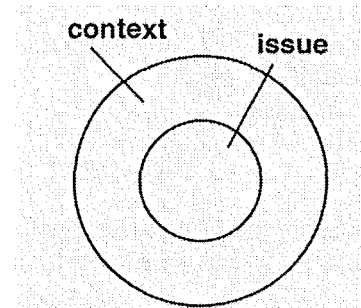


10 opvattingen over Systeemdenken

1. Sommige oplossingen (S) creëren meer problemen (P). Bij het zoeken naar oplossingen is het van belang verschillende aanknopingspunten en oplossingen aan te dragen, die bijdragen aan het verbeteren van de situatie.



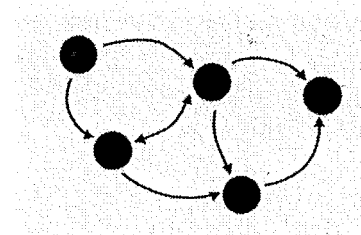
2. We moeten meer het geheel en de context in ogenschouw nemen.
Synthese



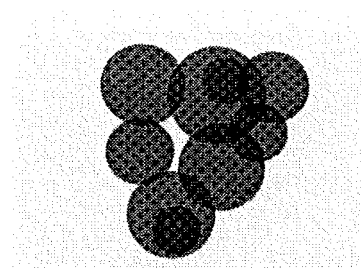
3. Complexe systemen vertonen 'emergente eigenschappen'. Hierdoor ontstaan nieuwe kwaliteiten of eigenschappen die niet voorspeld kunnen worden door naar de afzonderlijke delen van een systeem te kijken.
Holisme

"2 + 2 = 5"

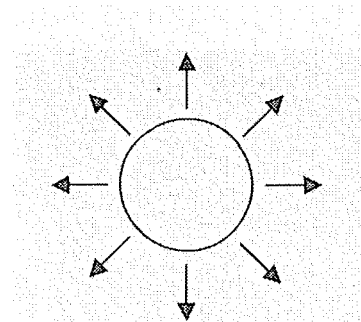
4. We moeten proberen om alle invloeden, relaties en 'feedbackloops' in kaart te brengen. Deze complexe interacties zijn vaak eigen aan sociale en ecologische systemen.
Meervoudige invloed



5. De meeste gebeurtenissen en problemen kunnen beter begrepen worden door ze in het licht van de onderlinge samenhang te bekijken.
Integratie

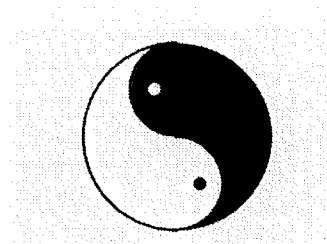


6. Complexiteit brengt met zich mee dat we onze kijk op de wereld moeten vergroten en we ons bewust worden van onze beperkingen.
Uitgestrekt



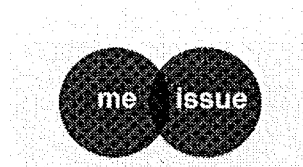
7. Het zien van relaties in tegenstellingen. We neigen ernaar tegenstellingen ten opzichte van elkaar te waarderen en te beoordelen (ecologie versus economie, natuur versus de mens, waarden versus feiten, etc.) in plaats van de relatie tussen deze tegenstellingen waar te nemen.

Aanvullende eigenschappen tussen tegengestelden



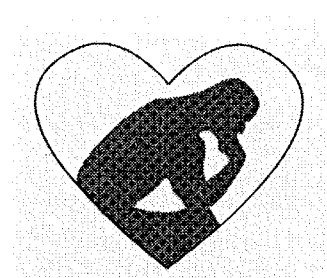
8. De keuze om objectief te zijn is een waardeoordeel. Volledige objectiviteit is onmogelijk. Laten we in plaats daarvan proberen om meer inzicht te krijgen in de subjectieve wijze waarop wij de wereld waarnemen.

Kritische subjectiviteit



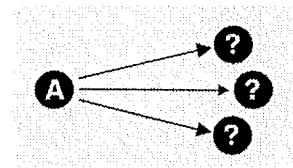
9. Meer evenwicht tussen intellect en intuïtie, ratio en niet-rationele wijze van kennis. Balans tussen linker- en rechterhersenhelft.

Rationele en intuïtieve vormen van kennis



10. In menselijke en bijna alle natuurlijke systemen (behalve de mechanische systemen) is het onmogelijk om resultaten te voorspellen. We moeten flexibeler zijn, onzekerheid accepteren en niet alles proberen en willen te controleren.

Onzekerheid



Waar zit jij met je denken?

Score	weinig=1	af en toe=2	altijd=3
Ik onderzoek en trek aannames van mezelf en van anderen in twijfel			
Ik stel verschillende vragen bij problemen of gebeurtenissen			
Ik zoek naar verbanden en patronen tussen gebeurtenissen en/of ideeën			
Ik heb een kritische houding en oog voor synthese			
Ik beoordeel de mening of het standpunt van anderen bij een probleem of kwestie			
Ik kijk naar verschillende oorzaken en gevolgen i.p.v. naar oorzaak-gevolgrelaties te kijken			
Ik kijk naar het groter geheel, bekijk problemen en kwesties vanuit een grotere context			
Ik denk na over de lange termijn			
Ik onderzoek zorgvuldig eenvoudige, beperkende en voor de handliggende oplossingen			
Ik stel een oordeel uit in plaats van te snel conclusies te trekken			
Ik veroordeel niet (bijvoorbeeld andere mensen) als er iets misgaat in het systeem			
Ik stel vragen naar het doel, de functie en de relaties van een systeem			
Ik herken onzekerheid en dubbelzinnigheid			
Ik weet adequaat te reageren op onzekerheid en dubbelzinnigheid			
Ik ben geïnteresseerd in de gezondheid en het welzijn van het systeem			
Ik ben 'open minded'			

Je score

- 0 - 16 Oh jee
 17 - 24 Ok, je denkt nog sterk causaal
 25 - 36 Goed, je bent je bewust van complexe aangelegenheden en probeert er mee te werken
 37 - 48 Geweldig, Systeemdenken zit in je systeem, maar doe je dit ook altijd?

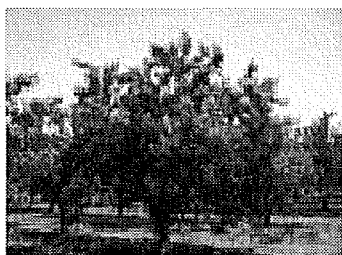


2. Waarnemen

Hoe nemen wij onze omgeving waar?

Oefening 3

- Wat zie je of neem je waar op de onderstaande foto?



Wat is een systeem?

- Theorie
- Het waarnemen van systemen
- Hoe werkt het systeem?

niet 'wat'

"welke"
"waarom"



Problemen

Simpel problems

Simpele problemen zijn problemen die duidelijk omschreven zijn, zowel in plaats als in tijd. Het probleem is bekend en de oplossing staat al min of meer vast. Er is een hoge mate van controle. Alhoewel het probleem uit veel delen kan bestaan heeft het probleem een duidelijk waarneembare en afgebakende grens. Deze systemen zijn over het algemeen lineair; het geheel is gelijk aan de som der delen en oorzaak en gevolg staan in verhouding tot elkaar.

Complex problems

Complexe problemen zijn problemen die onbegrensd zijn en die in de tijd kunnen veranderen. Er kan niet worden vastgesteld waar en wanneer de invloed van het probleem ophoudt en hoe de onderlinge componenten zich tot elkaar verhouden. Hierdoor is het moeilijk de aard van het probleem te benoemen en de effecten te voorspellen. Dit soort problemen worden vaak complex genoemd. Complexiteit is een eigenschap van levende organismen en systemen. Van een cel tot een orgaan, tot een familie, tot een gemeenschap, tot een samenleving, een economie of een ecosysteem. Deze systemen zijn niet lineair.

Oefening 4

- Noem verschillende simpele en complexe problemen waarmee je in je werk te maken hebt

- Wat is het verschil?

- Welke plaatjes van denken (Lineair denken en Systeemdenken) zijn bij elk probleem van toepassing?

Wel afhankelijkheid? we zitten met 'plaatjes'
'afrekenbaarheid' van Naam / → Do?
waart niet politiek niet gewaagd

Weergeven van problemen

Oefening 5

- Lees het volgende artikel uit de krant
- Wat valt er op? Volstaat de benadering van het probleem?
- Kijk opnieuw naar het krantenartikel aan de hand van enkele vragen



Vragen bij het krantenartikel

- Wordt het probleem duidelijk omschreven?
- Worden er korte- en langetermijn effecten van het probleem genoemd?
- Waar leidt het probleem of de situatie toe?
- Wordt er een oorzaak van het probleem genoemd? Is dat er één of zijn dat er meer?
- Wordt er één oplossing of meerdere oplossingen voor het probleem genoemd?
- Wat is het doel van de oplossing?
- Wat doet de oplossing feitelijk?
- Worden er voor- en nadelen van de oplossing genoemd?
- Wie of wat heeft een voordeel bij deze oplossing en wie verliest bij deze oplossing?
- Worden er verschillende effecten in de tijd genoemd, bijvoorbeeld effecten nu en later of effecten hier en elders?



3. Doen

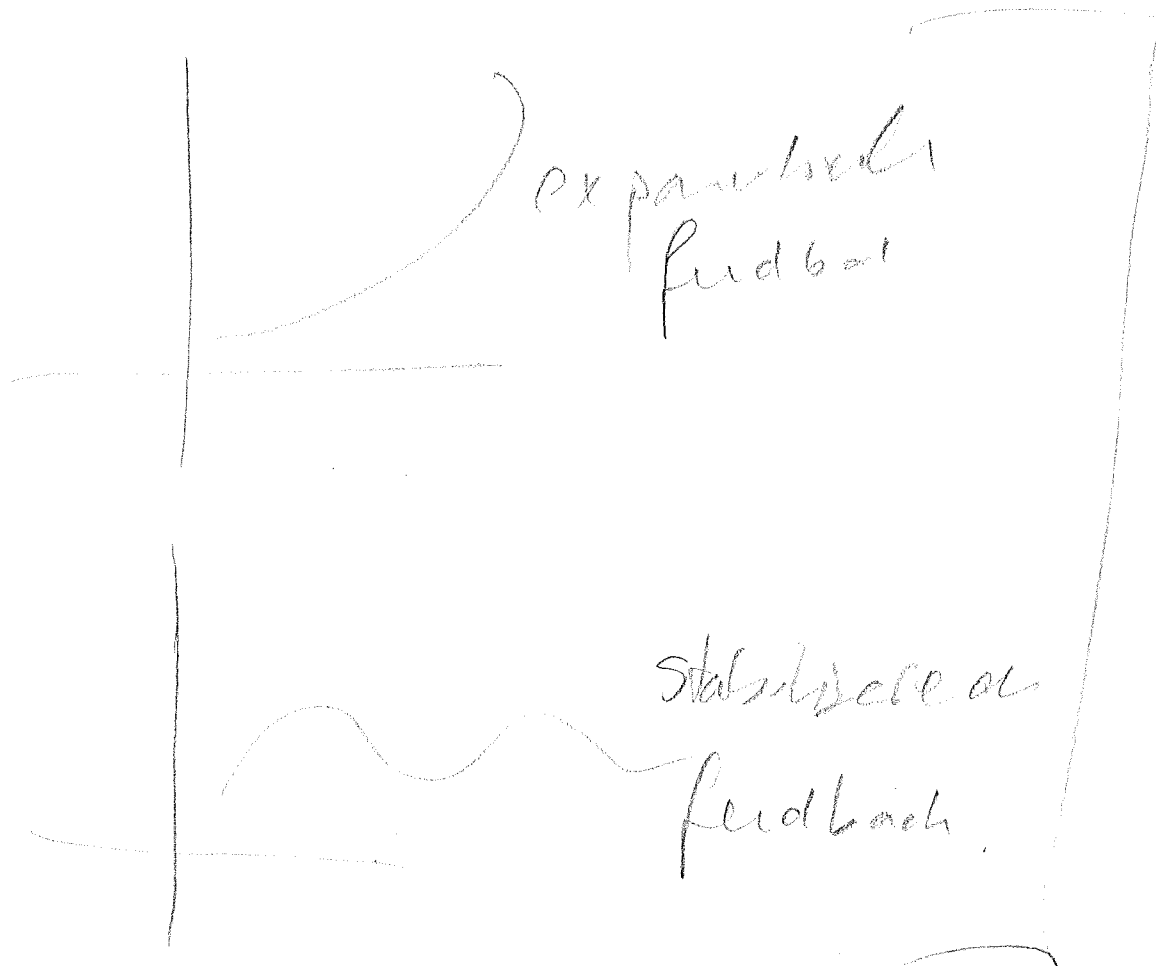
Het spelen van Ecopolicy

Wissel na het spelen van Ecopolicy je ervaringen uit met je buurvrouw of buurman

- Wat kwam je tegen?
- Wat deed je of dacht je waardoor je Ecopolicy zonder goed resultaat hebt gespeeld?
- Wat deed je of dacht je waardoor je Ecopolicy met goed resultaat hebt gespeeld?
- Hoe kun je de inzichten en de oefeningen van Ecopolicy vertalen naar je werksituatie?
- Wat kun je als leermoment uit de oefeningen en Ecopolicy meenemen naar je dagelijkse werkzaamheden?
- Wat denk of doe je dan?
- Wat voor geheugensteuntjes kun je bedenken om hieraan te denken?
- Welke competenties heb je nodig om te werken vanuit een systeemperspectief?



4. Welke competenties heb je nodig voor Systeemdenken?

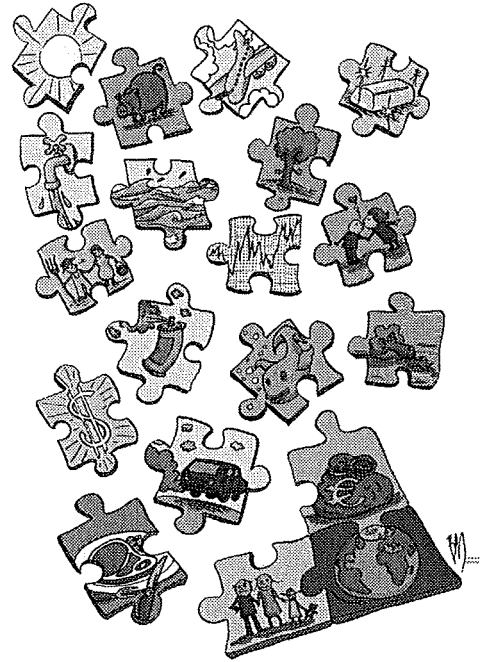


'drempelwoord'

effect $\neq$ impact

Module Afwegen

1. Besluitvorming en Afweging
2. Schema Transities
3. Sleutelfactoren voor effectieve besluitvorming
4. Valkuilen voor beslissers
5. Vragen bij het metabesluit
6. Twee typen logica
7. 3x3 matrix



1. Besluitvorming en Afweging

"Ik wens u interessante tijden toe", gold in het oude China als een verwensing. Het zou alleen maar afhouden van het bewandelen van het Edele Achtvoudige Pad. Anno 2001 leven we zeker in interessante tijden. De volgende contouren tekenen zich af:

- het groeiend belang van het verbinden van kennis en talenten
- opkomst van internet en ICT
- vergroting van het speelveld; europeanisering en globalisering
- verweving van publieke en private domeinen,
- ontstaan van een netwerksamenleving
- snelheid en dynamiek in maatschappelijke en economische processen
- toenemend belang van creativiteit en innovatie

Deze veranderingen bieden nieuwe kansen en mogelijkheden. Maar het leven wordt er inderdaad niet eenvoudiger op. Zeker niet voor beslissers, managers en regisseurs van besluitvormingsprocessen.

In een dynamische en snel veranderende omgeving nemen de aanleidingen voor besluitvorming toe en wordt het nemen van het 'juiste besluit' steeds moeilijker. Beslissingen moeten worden genomen in een context van netwerken van interne of externe actoren. Effectiviteit en kwaliteit zijn belangrijke doelstellingen bij besluitvormingsprocessen. Draagvlak en snelheid zijn steeds vaker kritische succesfactoren. De impact van de besluiten is groot; een (strategische) keuze is bepalend voor het succes, achterblijven of mislukken van beleid en projecten. Het maken van de juiste keuzen en het nemen van goede (bij voorkeur ook nog eens breed gedragen) beslissingen is een uitdaging voor iedere moderne organisatie.

Besluitvorming kan moeizaam, stroperig en ingewikkeld zijn; een chaotische processie van Echternach. Tegelijkertijd kan een kwalitatief hoogwaardig besluitvormingsproces ook nieuwe mogelijkheden creëren, tot integrale en doeltreffende afwegingen leiden en energie mobiliseren. Een goed proces kan zelfs een zekere schoonheid hebben.

Als het ons lot is om in interessante tijden te leven, dan moeten we dit lot maar met verve dragen.



Modules

De Verkenning

Een eerste zoektocht in een onbekend land. Wat is het probleem en waarom? Wiens probleem is het eigenlijk? Wat is de organisatorische en maatschappelijke context? Wie zijn de betrokken stakeholders? Wat is de verhouding tot andere domeinen? Wat is het beoogde resultaat van het traject? Eerste oplossingsrichtingen.

De Fundamenten

Het leggen van stevige fundamenten onder het besluitvormingsproces met drie peilers: inhoud, proces en mensen. Wat zijn inhoudelijke kaders en randvoorwaarden bij de start? Welke procesarchitectuur en welke werkvormen passen het beste bij de doelstelling van het proces? Welke rollen zijn noodzakelijk, wie heeft welke talenten en wie is waarvoor verantwoordelijk? Inbedding en verankering?

De Juiste Vragen

Precisering probleemdefinitie. Verdieping en analyse. Wat is precies het probleem en uit welke 'deelp Problemen' bestaat het? Wat zijn achterliggende oorzaken? Waar zitten mogelijkheden voor beïnvloeding? Waar zit 'creatieve ruimte'? Wat zijn de belangrijkste uitdagingen? Wat zijn de beren op de weg? Waar liggen aanknopingspunten voor verrijking en doelvervlechting?

Connecting Creativity

Divergeren in het kwadraat. Het met behulp van verschillende creatieve technieken inventariseren en genereren van oplossingen voor het probleem. De technieken kunnen zowel parallel worden ingezet voor dezelfde vraag, als volgtijdelijk voor opvolgende vragen. Inzet brainstorm, Delphi, visioning, concurrent engineering, etc. Periodiek is een korte convergentieslag noodzakelijk.

Domeinen en disciplines

Verbinden van inzichten vanuit verschillende disciplines. Expliciet zoeken naar analogieën in andere wetenschappelijke domeinen. Kan inspiratie geput worden uit inzichten en wetmatigheden uit andere disciplines rond een vergelijkbare problematiek? Welke parallelle ontwikkelingen zijn gaande in andere bestuurlijke en maatschappelijke domeinen waarbij aangesloten kan worden?

De Verbinding

Het verbinden van de resultaten van eerdere fasen. Wat zijn nu de belangrijkste thema's uit de vorige ronden? Verdient de aanvankelijke probleemstelling aanscherping? Welke ideeën verdienen nadere uitwerking? Op grond van welke criteria? Wat zijn de belangrijkste uitdagingen voor het vervolgetraject? Prioriteren, verbinden en uitwerken van denkrichtingen. Selectie. Waar liggen kansen voor nieuwe verbindingen? Uitwerking in robuuste scenario's of door middel van creatieve concurrentie.

Het Landschap

Schets van problematiek en handelings- en beleidsopties. Terughalen van vertrekpunten en resultaten van vorige fasen. Is dit het nu? Wat ontbreekt nog? Waar liggen de belangrijkste aandachtspunten? Informatie overzichtelijk en inzichtelijk samenvoegen. Welke verbindingen op systeemniveau zijn met name interessant? Wat zijn de échte dilemma's? Wat zijn beslispunten?



Decision Support

Overwegen en waarderen. Kansen en risico's van belangrijkste handelingsopties. Voor overheden fundamentele reflecties op politieke aspecten. Welke waarden zijn geïncorporeerd in de probleemstelling en de verschillende handelingsopties? Hoe verhoudt e.e.a. zich tot de politieke waarden van de bewindspersoon? Waar liggen de belangrijkste afbreukrisico's en politieke kansen in kabinet en Kamer? SWOT. Expliciteren en prioriteren van de belangrijkste criteria. What if...? Waarderen van handelings- en beleidsopties. Kiezen.

Het Pact

Commitment. Complexe besluitvorming kent meerdere stakeholders. Vaak is geen sprake van een effectieve bevelsrelatie. Commitment van sleutelfiguren is dan essentieel voor een werkbaar besluit. Hoe de resultaten uit de voorbereiding op de juiste wijze vast te leggen? Welk soort afspraak past bij het soort commitment? Niet te zwaar 'dichttimmeren' (te weinig bewegingsvrijheid bij de uitvoering), en niet te licht inzetten (onvoldoende commitment bij de uitvoering). Pacta sunt servanda. Borging vervolgproces.

De Uitvoering

Vaak zijn de besluitvorming en de uitvoering tamelijk gescheiden. In deze kennisintensieve tijd voldoet de 'knip' tussen besluitvorming en uitvoering echter niet meer. Welke uitvoeringsstructuur past het beste bij het vervolgproces? Kaders en randvoorwaarden? Inbedding en verankering? Welke rollen zijn noodzakelijk, wie heeft welke talenten? Verantwoordelijkheden?



Bijlage 1 Voorbeelden fasen, software en tools

Fase in Besluitvormings-proces	Functionaliteit software	Type applicaties/pakketten	tools (een selectie uit het uitgebreide overzicht)
1. Aanleiding en fundamenteën	Visuele representatie/analyse van probleem (mind map)	Mind mapping software	krachtenveldanalyse stakeholdersanalyse De Verkenning voorbeelden, profielen, checklists
	Verzamelen van informatie	Software voor kwantitatief onderzoek Discussie-applicatie Group Support System	dynamische vragenlijsten quick scan checklist bestaande informatiekkanalen presentatiemateriaal
2. Inzicht	Analyse	Discussie-applicatie Group Support System Software voor kwantitatief onderzoek	2by2(plus) en matrixen PMI, SWOT Perspex visievorming kennisintensieve werkvormen
3. Probleemdefinitie	Algemeen		delphi forum met stemboxjes De Parade dialoog en discussie rechtbank
	Opstellen van criteria	Group Support System	
	Afwegen criteria	Multi criteria analyse software	
	Formuleren randvoorwaarden	Group Support System	
4. Alternatieven	Brainstormen/idee-ontwikkeling	Group Support System Creativiteits-programma Discussie-applicatie	creatieve technieken The Cave Cry Het Kralenspel creatieve concurrentie scenario's gaming, simulaties experimenten, prototypes



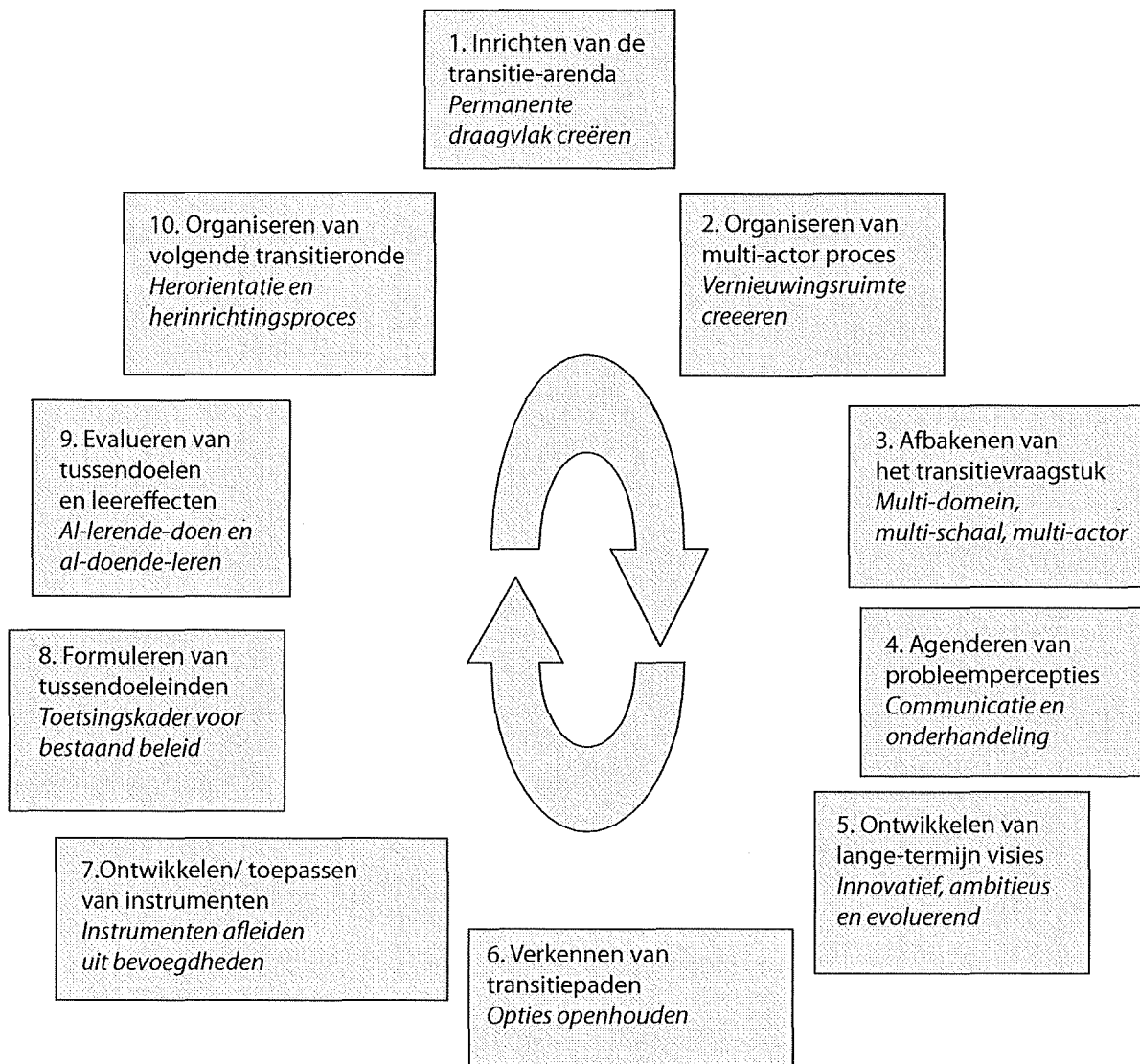
Vormen: Vergadering, workshop, Group Decision Room, Intranet, Internet, Video-conferencing

5. Integreren, selecteren, evalueren			presentatie-technieken cluster- en waarderings-technieken D Grapevine
	Stemmen Prioriteren	Multi criteria analyse software / Group Support System	
	Scoren alternatieven op criteria Optimaliseren alternatieven	Multi criteria analyse software Discussie-applicatie	evaluatie- en klankbord-technieken scenariodenken en
	What if analysis/ sensitivity analysis	Multi criteria analyse software	combineren scenario's met alternatieven, zie onder alternatieven
6. Commitment			afspraken en contracten symbolen en rituelen projectplannen, actieplannen
7. Uitvoering			De Brug (werknaam) borging meetbare doelen terugkoppelings- mechanismen modulaire opzet De Cockpit
Overall	Opslaan van informatie	Spread sheet	
	Projectonder- steuning		
	Kennismanagement		

Meer informatie: IMI, Guido Enthoven, 071-5127707, guido@iminet.org



2. Schema Transitie



3. Sleutelfactoren voor effectieve besluitvorming

Laten we een vluchtige blik werpen op alle acht aspecten van de ProACT-benadering om te zien hoe ze werken en bij elkaar aansluiten.

Houd je met het juiste probleem bezig

Waarover moet je een beslissing nemen? Van welke fitness-club je lid moet worden? Of over de vraag of je lid moet worden van zo'n club in plaats van meer te gaan wandelen of zelf fitnessapparatuur te kopen? Gaat het erom wie je in dienst moet nemen als hoofd van de afdeling Informatica van je bedrijf? Of is de vraag of jouw bedrijf een afdeling Informatica nodig heeft of die activiteit beter kan uitbesteden? Het kader waarin je je beslissing plaatst, kan van grote invloed zijn. Om de juiste keuze te maken, moet je je problemen zorgvuldig formuleren, de complexiteit ervan erkennen en ongegronde vooronderstellingen en beperkende vooroordelen vermijden.

Specificeer je oogmerken

Je beslissing moet tot het gewenste resultaat leiden. Je hebt een nieuwe medewerker nodig: wil je een gedisciplineerd teamlid of een creatieve vrije geest? Wil je een nieuw perspectief of solide ervaring? Een beslissing is een middel dat naar een doel leidt. Stel jezelf de vraag wat je het liefst wilt bereiken en welke belangen, waarden, interesses, angsten en ambities in dat opzicht het meest relevant zijn. Goed nadenken over je doelstellingen geeft richting aan het besluitvormingsproces.

Bedenk alternatieven

Je alternatieven vertegenwoordigen de diverse handelwijzen waaruit je een keuze moet maken. Moet je bij een familieruzie partij kiezen of je afzijdig houden van de opkomende golf bittere beschuldigingen? Of moet je naar een oplossing zoeken die voor alle betrokkenen haalbaar is? Als je geen alternatieven had, zou je geen besluit hoeven nemen. Maar heb je wel *alle* alternatieven overwogen of in ieder geval een breed perspectief van creatieve of wenselijke uitkomsten? Bedenk dat je beslissing nooit beter kan zijn dan je beste alternatief.

Heb oog voor de consequenties

Hoe goed sluiten je alternatieven aan bij je doelstellingen? Alternatieven lokken en verleiden, maar verbergen soms ontnuchterende, soms opwindende consequenties. De tredmolen van je werk voor gezien houden en zeilboten gaan verhuren op Aruba klinkt misschien aanlokkelijk, maar welke gevolgen zou dat hebben voor de loopbaan van je partner, voor je schoolgaande kinderen, voor je bejaarde ouders, voor je huid die gevoelig is voor kanker? Door de consequenties van elk alternatief eerlijk onder ogen te zien, kun je beter vaststellen welke het beste bij je doelstellingen aansluiten – bij *al* je doelstellingen.

Ga de confrontatie met tegenstrijdigheden aan

Omdat oogmerken vaak met elkaar in strijd zijn, moet je een evenwicht zien te vinden. Soms dien je iets op te offeren ten gunste van wat anders. Je carrière is belangrijk voor je, maar je gezin ook. Daarom besluit je misschien het mes te zetten in je zakenreizen of minder tijd op kantoor door te brengen. Dan gaat het met je loopbaan en je inkomen wat minder van een leien dakje, maar je hebt meer tijd voor je partner en je kinderen. Bij de ingewikkeldste beslissingen is geen enkel alternatief volmaakt. Diverse alternatieven leiden tot diverse constellaties van oogmerken. Het is jouw taak een verstandige keuze te maken tussen de niet geheel perfecte mogelijkheden. Daarom moet je prioriteiten stellen door tegenstrijdige alternatieven onder ogen te zien.



Verduidelijk onzekere factoren

Wat kan er in de toekomst gebeuren en hoe waarschijnlijk is dat? Om te beslissen hoeveel geld je opzij moet zetten voor de studie van je dochter, moet je rekening houden met een aantal onzekere factoren. Gaat je dochter naar een gerenommeerde universiteit of naar een plaatselijke hogeschool? Komt ze door haar academische, kunstzinnige of sportieve talent in aanmerking voor een beurs? Wil ze werken tijdens haar studie? Heeft ze een auto nodig? Door onzekerheid wordt het maken van een keuze veel moeilijker. Maar effectieve besluitvorming eist dat je de confrontatie met onzekerheid aangaat en de kans op uiteenlopende resultaten en de mogelijke invloed daarvan inschat.

Denk goed na over je tolerantie van risico's

Als beslissingen met risico's gepaard gaan, is het gewenste resultaat wellicht anders dan het feitelijke resultaat. Een zorgvuldig overwogen beenmergtransplantatie kan kanker een halt toe roepen – of niet. Een gemeentelijke obligatie met weinig risico's kan tot aanzienlijke financiële verliezen leiden. Niet iedereen verdraagt risico's in dezelfde mate; afhankelijk van wat op het spel staat, vindt men uiteenlopende risico's aanvaardbaar. Als je precies weet in hoeverre je bereid bent risico's te nemen, wordt je besluitvormingsproces soepeler en effectiever. Dan kies je eerder voor het alternatief met het risico dat *voor jou* het beste is.

Houd rekening met onderling afhankelijke beslissingen

Wat je vandaag beslist, kan je keuze morgen beïnvloeden. Daarom zijn belangrijke beslissingen vaak van elkaar afhankelijk. Een ambtenaar van publieke werken kan besluiten op dit moment grond aan te kopen om een mogelijke toename van het verkeer in de toekomst het hoofd te kunnen bieden. Zo omzeilt hij mogelijke schommelingen van de grondprijzen of verzet van burgers die toekomstige keuzen zouden kunnen dwarsbomen. De sleutel om effectief met onderling afhankelijke beslissingen om te gaan is: stel de korte-termijnproblemen vast, los ze op en verzamel de nodige informatie om de problemen aan te pakken die zich later zullen voordoen. Door je handelingen in de juiste volgorde uit te voeren en zoveel mogelijk te profiteren van wat je ondertussen leert, doe je wat je kunt om de beste beslissingen te nemen, hoeveel onzekerheid er ook is.

Uit: Verantwoord Kiezen, Praktische adviezen voor gefundeerde besluiten, John S. Hammond, Ralph L. Keeney, Howard Raiffa, Uitgeverij Contact, Amsterdam/Antwerpen 1999, p. 14-17



4. Valkuilen voor beslissers

De meeste beslissers begaan dezelfde soorten fouten.

Hieronder volgt onze samenvatting van de tien gevaarlijkste valkuilen voor beslissers:

Zich erin storten

Beginnen informatie te verzamelen en conclusies te trekken, zonder eerst even tijd te nemen om na te denken over de crux van de kwestie waar u voor staat, of om door te denken over de manier waarop u meent dat zulke beslissingen gemaakt zouden moeten worden.

Kaderblindheid

Beginnen het verkeerde probleem op te lossen omdat u een mentaal kader hebt gecreëerd voor uw besluit, zonder er lang over na te denken, wat ertoe leidt dat u de beste opties over het hoofd ziet, of dat u uit het oog verliest wat de belangrijke doelstellingen zijn.

Gebrek aan controle over het raamwerk

Nalaten het probleem bewust op meer dan een manier te definiëren, of zich onevenredig laten beïnvloeden door het raamwerk van anderen.

Te zeker zijn van uw opinies

Nalaten om belangrijke feitelijke informatie te verzamelen omdat u te zeker bent van uw eigen aannames en meningen.

Kortzichtig sluiptweggetjes nemen

Misplaatst vertrouwen op 'vuistregels', bijvoorbeeld impliciet vertrouwen op de snelst verkrijgbare informatie of zich te veel verlaten op feiten die u goed uitkomen.

Impulsief handelen

Geloven dat u alle informatie die u hebt ontdekt wel in uw hoofd op een rijtje kunt zetten, en daardoor geen systematische procedure volgen, maar de informatie 'erdoor jagen' bij het maken van de uiteindelijke keuze.

Groepsoverschatting

Aannemen dat wanneer er veel intelligente mensen bij betrokken zijn, goede keuzes automatisch zullen volgen, en daardoor nalaten het groepsgewijze besluitvormingsproces te leiden.

Uzelf met feedback voor de gek houden

Nalaten de feiten over eerdere resultaten te interpreteren voor wat ze werkelijk te vertellen hebben, hetzij omdat u uw ego wilt beschermen of omdat u zich laat bedriegen door kennis achteraf.



Geen gegevens bijhouden

Aannemen dat uw ervaring haar lessen automatisch beschikbaar stelt, en daardoor nalaten om systematisch gegevens bij te houden teneinde op de hoogte te blijven van de resultaten van uw beslissingen, en nalaten deze resultaten zodanig te analyseren dat hun belangrijkste lessen aan het licht komen.

Nalaten uw eigen besluitvormingsproces te onderzoeken

Nalaten een georganiseerde aanpak te creëren waarmee u inzicht kunt krijgen in uw eigen besluitvorming, zodat u constant ten prooi blijft vallen aan alle bovengenoemde fouten.

Uit: Beslis(t) beter!, kwaliteit van besluitvorming, J.Edward Russo, Paul J.H. Schoemaker, Scriptum Books, Schiedam 1989 (oorspronkelijke titel: Decision Traps; Ten Barriers to Brilliant Decision-Making and How to Overcome Them. P.13)



5. Vragen bij het metabesluit

- Wat is de crux of de belangrijkste moeilijkheid van deze kwestie? In welk van de belangrijkste elementen van het besluitvormingsproces is deze gelegen?
- Hoe moeten beslissingen als deze in het algemeen worden genomen? (bijvoorbeeld alleen of door een groep; op basis van intuïtie of analyse, etc.)
- Heeft deze beslissing veel gevolgen voor andere beslissingen?
- Moet deze beslissing eigenlijk wel genomen worden? Moet ze nu genomen worden? Welke onderdelen kan ik delegeren of met iemand anders samen doen?
- Hoeveel tijd hebben beslissingen als deze in het verleden in beslag genomen? Hoeveel tijd zou deze beslissing moeten kosten? Wanneer moet ze genomen worden? Zijn de deadlines willekeurig vastgesteld of reëel?
- Kan ik bij deze kwestie achtereenvolgens doorgaan van bepaling van het raamwerk via informatievoorziening naar het trekken van conclusies, of moet ik heen en weer lopen tussen de onderdelen van het besluitvormingsproces?
- Waar moet ik mijn tijd en middelen concentreren? Hoeveel verwacht ik te besteden aan elke fase van het besluitvormingsproces? Sta ik voor een moeilijke taak bij het inkaderen van deze keuze? Zal de informatieverzameling de grootste uitdaging opleveren? Zal ik bij het rationeel nemen van het besluit nog moeilijkheden ondervinden, zelfs nadat ik de inkadering en de informatieverzameling heb afgerond?
- Kan ik, om dit besluit te nemen, gebruik maken van feedback over verwante kwesties en ervaringen waar ik in het verleden mee te maken heb gehad?
- Wat zijn mijn eigen vaardigheden, vooroordelen en beperkingen bij het aanpakken van een kwestie als deze? Moet ik andere standpunten inbrengen? Welke andere standpunten zouden nuttig kunnen zijn?
- Hoe zou een meer ervaren beslisser die ik bewonder, deze kwestie aanpakken?

Uit: Beslis(t) beter!, kwaliteit van besluitvorming, J.Edward Russo, Paul J.H. Schoemaker, Scriptum Books, Schiedam 1989 (oorspronkelijke titel: Decision Traps; Ten Barriers to Brilliant Decision-Making and How to Overcome Them. p.23)



6. Twee typen logica

Vergelijkende analyse van inhoudelijke logica

	LOGICA VAN HET CONSEQUENT HANDELEN	LOGICA VAN HET INTERACTIEF HANDELEN
Ijkpunt voor logisch handelen; waaruit vloeien beslissingen voort?	De eigen preferenties, of de preferenties en belangen waarvoor de organisatie zich via de eigen mission statement of via externe attributie (van bv. de politiek) verantwoordelijk voelt, vormen het referentiepunt voor gewenste handelingen.	Besluitvorming is een hulpmiddel om gezamenlijk met andere actoren betekenis toe te kennen aan ontwikkelingen en tot gerichte handelingen te komen. Bij de keuze van handelingen staat de vraag centraal wat behoort in de constellatie van actoren.
Manier om logica te verkrijgen en te verscherpen	Scherpe analyse van de eigen belangen en daaruit afgeleide meetbare targets, vergelijken van alternatieven in vormen van wenselijkheid en haalbaarheid, kiezen van het geprefereerde alternatief en kiezen van een werkwijze ter realisatie van deze oplossing.	Voortdurende externe oriëntatie op zich representerende belangen en de op bevrediging daarvan gerichte handelingen in het licht van de vraag of deze zijn te verzoenen met de eigen logica van het consequent handelen.
Criteria om tot ordening van besluitvorming te komen	Elke actor ordent de omgeving vanuit de eigen targets en werkwijze. De beslissing waarin target en werkwijze worden vastgelegd, vormt het middelpunt van besluitvorming. De beslissingen die daaraan vooraf gaan zijn bedoeld om de diversiteit aan handelingsopties te reduceren, de beslissingen om erna coherentie tussen wens en feit te vergroten.	Alle actoren ordenen hun omgeving vanuit eigen targets en werkwijzen. Hieruit resulteert een reeks in gang gezette processen. De manier waarop actoren met de samenhang van processen omgaan bepaalt hun resultaat. Opdoemende beslissingen vergroten de inconsistentie in het palet aan beslissingen en dragen bij aan de ambiguïteit van het inhoudelijk vraagstuk.
Criterium om tot demarcatie van besluitvorming te komen	Vanuit zijn eigen set van targets en middelen voert de actor een analyse uit van de omgeving die hij nodig heeft om zijn targets te bereiken. Uit een oneindige set van arena's selecteert elke actor vanuit zijn eigen logica relevante arena's.	Besluitvorming bestaat uit kunstmatig gescheiden processen, waarin actoren proberen om hun belangen te representeren. Relevante besluitvorming omvat naast het eigen proces, evenzeer processen van actoren, die van invloed blijken op het resultaat.

	LOGICA VAN HET CONSEQUENT HANDELEN	LOGICA VAN HET INTERACTIEF HANDELEN
Organisatie van besluitvorming	Vanuit het zelf geconstrueerde besluitvormingsproces wordt orde aangebracht door formalisering van de besluitvorming conform de eigen logica van consequent handelen.	Actoren worden zodra ze hun eigen proces hebben geconstrueerd gevangene van de logica van het eigen proces, hetgeen zich ondermeer uit in de procedure waaraan anderen, maar daarmee ook zichzelf zich dienen te houden.
Typering van besluitvorming	Het geheel van beslissingen dat nodig is om een besluit van de actor te nemen en uit te voeren.	Het geheel van beslissingen dat een voor burgers waarneembaar resultaat bewerkstelligt.
Veronderstelling over de inhoud van besluitvorming	Er is één onderwerp van besluitvorming (het project); dat moet verder worden gebracht.	Er wordt over vele onderwerpen gesproken. De interactie tussen de handelingen waarmee actoren proberen hun onderwerp verder te brengen leidt tot beleidsresultaten (de ingreep) en beleidseffecten (de manier waarop met een ingreep wordt omgegaan).
Structurering van besluitvorming	De opeenvolging van stappen die nodig is om het onderwerp van besluitvorming verder te brengen, bijvoorbeeld via een PKB of Trace-wet.	De samenloop van diverse stappenplannen structureert de besluitvorming en bepaalt in aanzienlijke mate de beleidsresultaten en effecten.
Kwaliteitstoets	Statische kwaliteit, met name in de zin of de logica van het consequent handelen houdbaar is gebleken; besluitvorming wordt beoordeeld op basis van de bijdrage die deze levert aan de eigen belangen.	Dynamische kwaliteit, met name in de zin of de actoren er in geslaagd zijn om uit de interactie tussen hun reeksen beslissingen lering te trekken op dusdanige wijze dat achteraf een gemeenschappelijk bevredigende compilatie van resultaten optreedt; besluitvorming wordt beoordeeld op basis van de bijdrage die deze oplevert aan de 'ecology of actors'.



7. 3x3 matrix

De 3 x 3 matrix is ontwikkeld in de verkenning van de Nationale Strategie Duurzame Ontwikkeling (NSDO) en getest in workshops door het ministerie van LNV. De 3 x 3 matrix helpt beleidsambtenaren bij de bewustwording ten aanzien van duurzame ontwikkeling.

De matrix kan worden toegepast op ieder concreet beleidsvoornemen. De manier waarop de wereld verandert ten gevolge van de ingreep kan worden ingeschat en ingevuld in de vakjes. De rijen en kolommen van de matrix zijn zo gekozen dat alle soorten gevolgen kunnen worden meegenomen. Het is wel nodig om de gevolgen van de ingreep te vergelijken met een referentiesituatie (geen ingreep of een andere ingreep).

De 3 x 3 matrix ziet er als volgt uit:

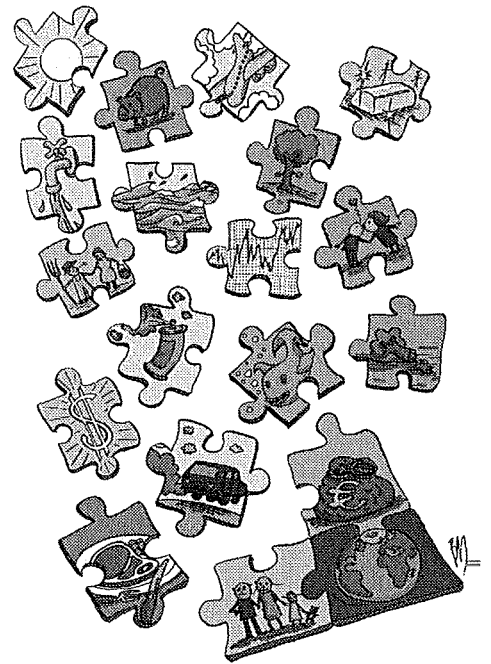
	Sociaal	Economie	Ecologie
Hier en nu			
Later			
Daar			



[illegible]

1. Competentielijst

Competenties bij transities



1. Competentielijst

Management gedrag

1. Leiding geven
2. Ontwikkelen van talent
3. Plannen en organiseren
4. Delegeren
5. Voortgangsbewaking

Interpersoonlijk gedrag

6. Mondelinge communicatie
7. Mondelinge presentatie
8. Schriftelijke communicatie
9. Overtuigingskracht
10. Luisteren
11. Sensitiviteit
12. Impact
13. Samenwerking
14. Sociabiliteit

Besluitvorming gedrag

15. Probleemanalyse
16. Oordeelsvorming
17. Visie
18. Creativiteit
19. Besluitvaardigheid
20. Organisatiesensitiviteit
21. Omgevingsbewustzijn



Persoonlijk gedrag

- 22. Aanpassingsvermogen
- 23. Flexibel gedrag
- 24. Stressbestendigheid
- 25. Onafhankelijkheid
- 26. Initiatief
- 27. Organisatieloyaliteit
- 28. Energie

Motivatieel gedrag

- 29. Inzet
- 30. Vasthoudendheid
- 31. Discipline
- 32. Integriteit
- 33. Durf
- 34. Ambitie
- 35. Zelfontwikkeling

Ondernemend gedrag

- 36. Ondernemerschap
- 37. Marktgerichtheid
- 38. Klantgerichtheid
- 39. Onderhandelen



Transitiepaper 2: Competenties bij transities

Douwe Jan Joustra, NIDO/VROM

Werken aan transities gaat vaak over partnerschappen, interactieve processen en het werken met vele actoren. De overheid ziet transities als een belangrijke weg naar het oplossen van 'hardnekkige' milieuproblemen¹ en als strategie om Duurzame Ontwikkeling te realiseren. De eisen die daardoor aan de overheid worden gesteld zijn veelomvattend. De transitiegerichte overheid werkt aan:

- Open (interactieve) besluitvorming op basis van gelijkwaardigheid;
- Omgaan met de spanning tussen de representatieve democratie en de nieuwe vormen van beleidsvorming (interactief, beleidsarena's e.d.);
- Betrouwbaarheid en doortastendheid;
- Versterken van empathisch vermogen (luisterend, inlevingsvermogen);
- Het kunnen benutten van individuele competenties en
- Het voorkomen van afwenteling;

In dit factsheet staat het één-na-laatste aandachtspunt centraal: het kunnen benutten van individuele competenties. Voor transities is het belangrijk dat vaste patronen kritisch worden gezien en de traditionele manier van partners werven voor veranderingsprocessen is daar één van. Veelal worden partners geworven op basis van deskundigheid of als vertegenwoordiger van een zekere groep betrokkenen. Het vinden van de juiste gesprekspartners, de juiste participanten is een uiterst belangrijk onderdeel van de transitieaanpak. De juiste mensen, met de juiste kennis, ervaring en attitudes op de juiste plaats. Maar hoe kan dat gedaan worden en wat karakteriseert die juiste mensen?

Competenties

Over competenties is veel geschreven. Er zijn tientallen definities in omloop. De Onderwijsraad heeft in haar advies 'Competenties: van complicaties tot compromis' (2002) een uitgebreide analyse gemaakt. Daarnaast is in de managementliteratuur (met name het Human Resource Management) veel gepubliceerd. Ruwweg gaat het bij competenties, zeker in het perspectief van transitie-management, over de combinatie van kennis, vaardigheden en attitudes bij individuen. Natuurlijk is het ook mogelijk om competenties toe te schrijven aan organisaties, maar voor transities zijn de mensen belangrijk.

Competenties nader bekeken

Voor een goed begrip van competenties is door de Onderwijsraad (2002) een aantal kenmerken benoemd die verbonden zijn met het werken met competenties:

1. Competenties zijn contextgebonden. Contexten zijn bijvoorbeeld: school, werk, maatschappelijk functioneren, privé, enzovoort. Dit wil echter niet zeggen dat competenties niet transferabel zijn naar andere contexten, of naar andere situaties binnen een zelfde context;
2. Competenties zijn ondeelbaar. Het zijn clusters van vaardigheden, kennis, attitudes, eigenschappen en inzichten (v, k, a, e en i). Een vaardigheid kan op zich zelf staan, maar als deze geen onderdeel vormt van een groter geheel van v, k, a, e, en i dan is er geen sprake meer van een competentie, maar van een geïsoleerde vaardigheid. De verhouding tussen k, v, a, e, en i kan per competentie(definitie) variëren;
3. Competenties zijn veranderlijk in de tijd. Eén uitwerking daarvan is een verandering in niveau: novice - professional - expert en
4. Competenties zijn verbonden met activiteiten/taken. Zowel voor de verwerving alsmede de toetsing van competenties is het uitvoeren van activiteiten/taken noodzakelijk.

Transitiemanagement is werken met competente partners. Bij beleidsprocessen waar interactie een belangrijk kenmerk is van de aanpak, speelt het telkens weer een rol: hoe vinden we de juiste gesprekspartners? Vaak wordt teruggevallen op vaste patronen. Aan de werkgeversorganisatie wordt gevraagd om een werkgever te leveren die mee kan, wil en mag praten. Er komt dan een vertegenwoordiger van de koepelorganisatie. Zo ook bij de vertegenwoordigers vanuit de maatschappelijke organisaties en andere betrokken partijen. Er ontstaat een zekere legitimiteit van het gesprek: ieder is tenslotte afgevaardigde met een zeker recht van spreken. Die legitimiteit vormt natuurlijk ook de basis voor kwaliteit. Maar ... in de kern van transitiemanagement gaat niet om het vinden van mensen die formeel doelgroepen etc. vertegenwoordigen. Het gaat wel om het vinden van gesprekspartners met inhoudelijke kennis van zaken, positie om te handelen en specifieke competenties, d.w.z. mensen, professionals. Redenen daarvoor zijn:

- Intermediaire en vertegenwoordigers hebben vaak maar een beperkt zicht op de individuele overwegingen van waaruit de leden, die ze vertegenwoordigen, handelen (hun 'handelings-theorie'). Juist die overwegingen zijn relevant om te leren

¹ Zie NMP4, ministerie van VROM 2001

- De meest betrouwbare manier om die kennis te vergaren is door met mensen (professionals) direct in gesprek te gaan. Luisteren is daarbij de belangrijkste uitdaging. Het is goed dat de transitie-manager zich realiseert dat eigen ideeën en plannen (en vooroordelen), het zicht op wat de ander te vertellen heeft, benemen: je weet niet wat je niet weet;
- Er zijn natuurlijk praktische beperkingen: met iedereen spreken is praktisch onmogelijk. Selecteer daarbij op:
- Strategische overwegingen: wie moeten er per sé meedoen wil iets, zoals het zich in dit stadium laat aanzien (het kan altijd veranderen), van de grond komen. Of vanuit een negatief perspectief: wie is in een positie om de zaken te blokkeren, en
- Inhoudelijke en procedurele overwegingen: zo speelt voor de transitie-manager de zorg voor een zo groot mogelijke variëteit aan inzichten (bijv. via de sneeuwbal methode: je vraagt je gesprekspartner een of enkele personen te noemen die ofwel zijn/haar mening delen ofwel juist het tegenovergestelde vinden; die zoek je op, en ook hen vraag je naar andere potentiële gesprekspartners, etc. tot dat je merkt dat je geen wezenlijk nieuwe gezichtspunten hoort); als je vervolgens verder gaat zoek je uit je bestand die mensen op die er blijk van gaven te beschikken over een creatieve flexibele geest, ofwel een breed netwerk etc, afhankelijk van je eigen doelen die je hebt met de gesprekken.

Competenties van de transitie'partners'

Tijdens één van de leerbijeenkomsten met transitietrekkers in 2003, is een aantal stijlfiguren genoemd, die bij kunnen dragen aan de kwaliteit van een transitieproces. Don Quichot, Lancelot, Merlijn en de Nar werden daarbij aangehaald. Er zijn meer en andere stijlfiguren te benoemen, die in een specifiek transitieproces nodig zijn.

Competenties voor transitie-management

In haar boek 'Inbreken in het gangbare' beschrijft Anne Loeber welke competenties van belang zijn voor het kunnen werken aan veranderingsprocessen in een complexe omgeving. Zij onderscheidt specifieke competenties voor de manager van de transitieproces van de gebruikelijke vaardigheden voor het opzetten en managen van projecten. Het gaat dan om:

- Om te kunnen gaan met onzekerheden (niet op voorhand

Don Quichot of Lancelot

Mensen vervullen individueel ieder een eigen rol in sociale leerprocessen. Er zijn vier rollen te onderscheiden, die in een transitiearena een eigen functie kunnen hebben:

- Don Quichot (zoekend naar...., vecht bestaande waarden aan maar verandert...?)
- Lancelot (zoekt de heilige graal, strijd voor de zwakkeren en het hogere doel, maar praktisch?)
- Merlijn (beschouwend, verdiepend, relaties leggen en natuurlijk toegang tot hogere machten)
- De nar (onverwachte denkwijzen, doorbreken bestaande, creatief en foutvriendelijk).

Deze roltypering moet gezien worden als een globale metafoor. In de uitvoering van een transitie lijkt het zinvol om na te gaan of deze 'figuren' betrokken zijn. Zeker als het gaat om het verkennen van nieuwe oplossingsrichtingen (ongebaande paden) is de deelname van een 'nar' zinvol. Die kan en durft de geijkte kaders ter discussie te stellen en is niet gevoelig voor macht.

de zaak inhoudelijk dicht willen timmeren; open staan voor nieuwe inzichten en de noodzaak de plannen daarop aan te passen; de eigen ideeën ter discussie durven stellen);

- Vragen te helpen articuleren (immers de deelnemers aan een transitieprogramma hebben veelal nog niet een duidelijk gearticuleerde vraag);
- Te 'vertalen' met kennis van zaken (d.w.z. een koppeling kunnen leggen tussen de langetermijnstrategie van een transitie naar duurzaamheid en de korte termijnstrategieën van de deelnemers en partners);
- 'Dienend' te leiden (de deelnemers ruimte geven en durven geven om een eigen inbreng te hebben, zonder de regie te verliezen);
- Geloofwaardig te zijn (gesprekspartner met geloofwaardigheid voor verschillende partners, zowel hoger als middenkader);
- Diversiteit uit te buiten (de transitie-manager opereert in een veelzijdige omgeving en weet dat te waarderen en te exploiteren. Die diversiteit kan onverwachte invalshoeken brengen en onverwachte ruimte voor verandering).

Ministerie van VROM →

staat voor ruimte, wonen, milieu en rijksgebouwen. Beleid maken, uitvoeren en handhaven.
Nederland is klein. Denk groot.

Het is ook deze transitie-manager die zoekt naar deelnemers met competenties. Dat is dan ook mede afhankelijk van de behoefte van de transitie-manager. Hij/zij richt het transitieproces in en zoekt zorgvuldig de personen uit die de transitie kunnen dragen, zowel in de startfase (richting zoeken) als in de eerste uitvoeringsfase (ruimte creëren) en de daadwerkelijke uitvoering (werken aan resultaat).

Bronnen:

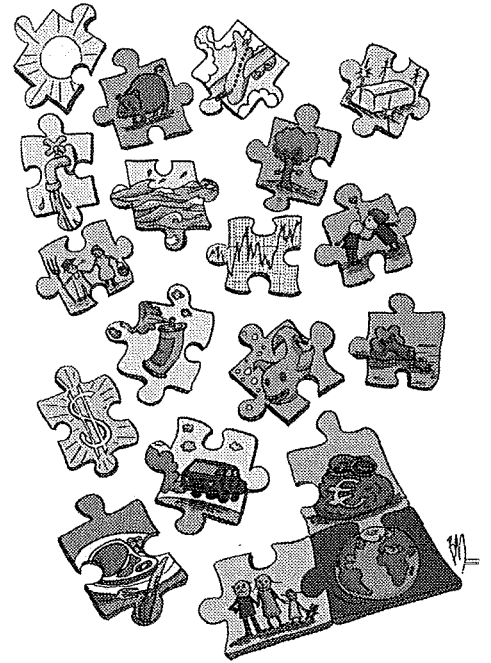
- Competenties: van complicaties tot compromis, Onderwijsraad, den Haag, 2002
- Inbreken in het gangbare, Anne Loeber, NIDO, Leeuwarden, 2002
- Co-creatie van verandering, André Wierdsma, Eburon, Delft, 1999
- Competentiemanagement in praktijk, Jelle Dijkstra & Nieske van der Lee, Scriptum, 2002
- www.managementsite.net
- http://www.tinfon.nl/Bijdrage_K._Hoeksema.pdf

Achtergrondinformatie:

- Beleidsnota's die (door)werken. Handleiding voor geslaagde beleidsvoorbereiding. R. Hoppe, M. Jeliaskova, H. van de Graaf en J. Grin, Coutinho, Bussum, 2001
- Van bovenaf het beleid van onderaf bezien: de argumentatieve wending en de werking van beleidsinstrumenten. J. Grin & H. van de Graaf, in: R. Hoppe & A. Peterse (red.), Bouwstenen voor argumentatieve beleidsanalyse, Elsevier, Den Haag, 1998, p. 205-220
- Een derde generatie milieubeleid: een sociologisch perspectief en een beleidswetenschappelijk programma, J. Grin, H. van de Graaf & P. Vergragt, in Beleidswetenschap 2003/1 p. 51-72

Thuis opdrachten

1. Towards a sustainable future
2. Exploring global Realities
3. Understanding sustainable development
4. A future perspective in the curriculum
5. Values (optional)



Inhoudsopgave

1. Towards a sustainable future

- Thinking about the Future
- Thinking about Forever
- A Process of Learning
- A Dynamic Balance
- Dimension of Sustainability Value Principle
- Principles for a Sustainable Future

2. Exploring global realities

- Introduction
- Objectives
- Activities

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- Spaceship Earth
- Five Pressing Issues
- Two Case Studies
- Unsustainable Consumption
- The Descending Spiral of Unsustainable Development

Activity 2: Exploring the links

- Making the Links
- Analysing the Patterns

Activity 3 : Acting Locally

- Scales of Action

Activity 4: Strategic Questioning

- Observation Questions
- Feelings Questions
- Visioning Questions
- Change Questions
- Personal Inventory and Support Questions
- Personal Action Questions
- Activity 5: Reflection

3. Understanding sustainable development

- Introduction
- Objectives
- Activities

Activity 1: What is sustainable development?

- The Brundtland Report
- Key Issues
- Impacts in the North and South
- Agenda 21
- Sustainable Human Development
- Sustainable Development - Key Issues to Address



Activity 2: Dimensions of sustainable development

Four Dimensions of Sustainable Development
A Dynamic Balance
Two Obstacles

Activity 3: Towards sustainable human development

Different Definitions and Values
The United Nations Millennium Assembly

4. A future perspective

Introduction
Objectives
Activities

Activity 1: Future education

Experiencing the Future
Wants
Needs

Activity 2: Analysing future trends

The Next Ten Years - Key Trends Shaping Society

Activity 3: Alternative futures: Probable and preferable futures

Global Futures Timeline
Probable Futures
Preferable Futures

Activity 4: Analysing your futures

Five Sketches - Commonly Held Visions of the Future

Activity 5: Envisioning a sustainable future

Images of a Sustainable Future

Activity 6: Reflection

5. Values (optional)

Introduction
Objectives
Activities

Activity 1: The Elephant Dilemma

Activity 2: Towards a ethic of sustainability

Ethics and Sustainability
Values in an Ethic of Sustainability
Values Analysis

Activity 3: Reflection



1. Towards a sustainable future

Thinking about the Future

No one knows what the future will be, except that it will be very different from what life is today and that decisions about whether the future is a sustainable one or not will depend upon changes in human culture.

"Our culture includes our whole system of beliefs, values, attitudes, customs and institutions. It shapes our gender, race and other social relations, and affects the way we perceive ourselves and the world and how we interact with other people and the rest of nature. To the extent that the global crisis facing humanity is a reflection of collective values and lifestyles, it is, above all, a cultural crisis. Culture, therefore, has a central place in the complex notion of sustainability - and whatever form the future takes, it will be shaped at the local level by the mosaic of cultures that surround the globe and which contribute to the decisions that each country, community, household and individual makes."

Source: UNESCO (1997) *Educating for a Sustainable Future: A Transdisciplinary Vision for concerted Action*, paragraph 111-112.

Our increasing awareness of many pressing global realities is helping us to understand the impact of human actions on the environment and on human quality of life. Indeed, the concept of sustainability is, in itself, a reflection of this growing awareness and of the need for new cultural values. Thus, it has been suggested that:

"Perhaps we are beginning to move towards a new global ethic which transcends all other systems of allegiance and belief, which is rooted in a consciousness of the interrelatedness and sanctity of life. Would such a common ethic have the power to motivate us to modify our current dangerous course? There is obviously no ready answer to this question, except to say that without a moral and ethical foundation, sustainability is unlikely to become a reality."

Source: UNESCO (1997) *Educating for a Sustainable Future: A Transdisciplinary Vision for concerted Action*, paragraph 116.

Local and national communities are applying this ethic in many different ways and developing images of sustainable futures that are both culturally appropriate and locally relevant. The great diversity of cultures around the world means that there will be many versions of what a 'sustainable future' might be like and many different local forms of sustainability. Despite these differences, there are at least three common themes in global thinking about sustainable futures. These include the ideas that sustainability involves: thinking about forever; a process of learning; and, a dynamic balance.

Thinking about Forever

Underlying all our images of a sustainable future is the key principle that sustainability is about 'thinking about forever'. This means committing ourselves to the common good by thinking differently, considering things previously forgotten, broadening our perspectives, clarifying what we value, connecting with our neighbours, and providing hope for future generations.

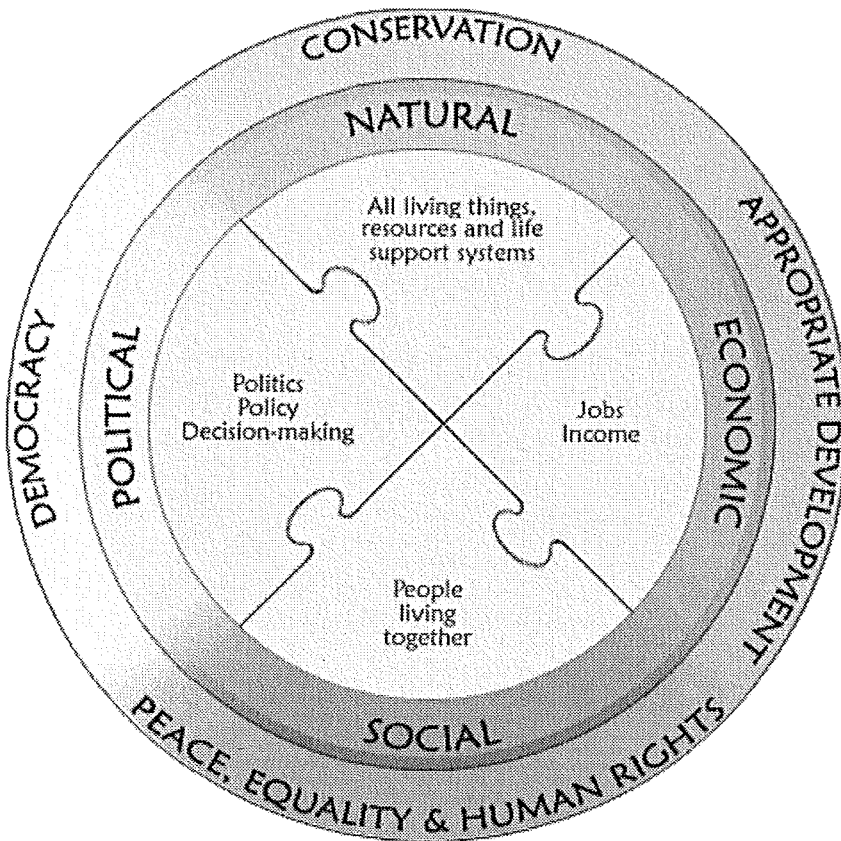
A Process of Learning

Learning for a sustainable future is not so much about a destination as about the process of learning to make decisions that consider the long-term economy, ecology and equity of all communities. Its goal is to build an enduring society. This involves learning how to anticipate the consequences of our actions, envision a sustainable future and create the steps needed to achieve the vision. Individuals and societies will perpetually have to make choices. How those choices are made and the information and ethical discernment used in making them will determine whether our visions of a sustainable future are achieved. The World Commission on Environment and Development urged people, governments and businesses around the world to make their choices that contributed to ways of living and relating to the Earth and each other so that the use of resources today would meet 'the needs of the present without compromising the ability of future generations to meet their own needs.'



"How can the needs of current and future generations be met in a world where the aspirations of many people far exceed their needs and the life chances of the many more are acutely limited by poverty and environmental decline? The task of creating social, economic and political systems that meet our needs and aspirations, that are based on sound ecological principles, and that are democratic and fair to current and future generations, is a deeply challenging one.

A Dynamic Balance



The dynamic balance between cultural differences and this emerging global ethic is a key concept in learning for a sustainable future. It reminds us that sustainability will be built from the actions of people and businesses in their own communities, at local levels, and extend outwards in a spirals of shared understandings and revised and renewed visions. Teaching and Learning for a Sustainable Future does not prescribe the forms that a sustainable future might take. Rather, it encourages adaptations and applications of the learning activities to local situations and needs. Nevertheless, in keeping with the emerging global ethic of 'interrelatedness and sanctity of life', the learning activities reflect a dynamic balance among four dimensions and principles that underlie a sustainable future:

Dimension of Sustainability Value Principle

Social Sustainability	<->	Peace and Equity
Ecological Sustainability	<->	Conservation
Economic Sustainability	<->	Appropriate Development
Political Sustainability	<->	Democracy

These principles mean that a sustainable future would be one in which people:

- Care for each other and value social justice and peace
- Protect natural systems and use resources wisely
- Value appropriate development and satisfying livelihoods for all
- Make decisions through fair and democratic means.

Source: Adapted from Ecotrust: Building a Conservation Economy; East Midlands (UK) Regional Environmental Education Forum (REEF); and Mountain Association for Community Economic Development (MACED) - Communities by Choice.

Principles for a Sustainable Future

People care for each other and value social justice and peace . . .

... by for example:

- Ensuring access to safe water, food, housing and fuel for all at reasonable costs
- Valuing (and respecting) the roles and contributions of women and girls to society as much as those of men and boys
- Caring for the young, the elderly, those with physical disabilities, and other less powerful or marginalised groups in society
- Treasuring the cultural heritage and well-being of the aboriginal peoples of the area
- Valuing and respecting cultural diversity of all types
- Strengthening local distinctiveness and identity within a mosaic of national and global connections
- Protecting human health and quality of life through safe, clean and healthy environments
- Emphasising primary health care and disease prevention as well as cure
- Maximising everyone's access to education so that all can develop the skills and knowledge to play a full part in society
- Making towns and cities 'human' in scale and form
- Settling disputes through discussion, negotiation and other peaceful means.

Protect natural systems and use resources wisely . . .

... by for example:

- Valuing and protecting the diversity of nature
- Caring for and respecting the life of all species of plants, birds and animals in non-human nature
- Using energy, water, forest, soil and other natural resources efficiently and with care
- Minimising waste, then recovering and reusing it through recycling, composting or energy recovery, and carefully disposing of what is left
- Limiting pollution to levels that do not damage natural systems or human health
- Maintaining and restoring ecosystem health
- Promoting compact cities and towns and the use of public transport
- Living lightly on the Earth.



Value appropriate development and satisfying livelihoods for all . . .

... by for example:

- Creating a vibrant local economy that gives opportunities to meaningful and rewarding work for all
- Ensuring that the fundamental human needs of all are met
- Valuing unpaid and voluntary work in the home and community
- Supporting policies that assign actual social and ecological costs and benefits to goods and services
- Recognising that the standard of living of a community is related to the contributions of people in neighbouring areas, elsewhere in the country and in other countries
- Encouraging the production and consumption of goods and services that do not degrade the natural environment locally or globally or undermine the quality of life of other people, especially those in the South
- Promoting corporate responsibility and accountability to local communities.

Make their decisions through fair and democratic means . . .

... by for example:

- Developing and promoting democratic institutions and processes for decisionmaking
- Decentralising decision making to appropriate local levels of government
- Promoting government responsibility and accountability to local communities
- Empowering all sectors of the community to participate in decision-making at local, regional and national levels
- Developing the capacity building of Non-Government Organisation (NGOs), neighbourhood and professional associations and other elements of a vibrant civil society
- Eradicating corruption in government and business.



2. Exploring global realities

Introduction

This module introduces some of the major issues - the global realities - that need to be addressed in building a sustainable future. As such, it serves as a foundation for the more in-depth studies in following modules. It also highlights the interdependence of these issues and how our daily lives, as inhabitants of the world, are related to social, economic and environmental processes. The module demonstrates that changes to the way resources are used are possible, that social and environmental problems can be solved, and that we have the collective capacity to overcome the many problems we face.

Objectives

- To develop an understanding of the range of social, economic and environmental issues facing the world today;
- To develop an understanding of the interrelationships among these different types of issues; and
- To recognise that education can play a key role in empowering people to work for a sustainable future.

Activities

1. Behind the news
2. Exploring the links
3. Acting locally
4. Strategic Questioning
5. Reflection

Activity 1: behind the news

Spaceship Earth

"Imagine that just as you are about to board a jet aircraft, you see a man busily prying rivets out of its wings. As you rush in panic down the steps, he calls out, "Don't worry, I've taken a lot of rivets out already and the wing hasn't fallen off." Are you assured?

No sane person would want to travel on a plane whose airline did not have a 'progressive maintenance' programme . . . and only a lunatic would want to ride on Spaceship Earth if the components of its ecosystem were being dismantled so fast that maintenance could not begin to keep up repairs . . .

The free services that Earth provides to civilisation - the air we breathe, the climates in which we live, fresh water, waste disposal, recycling of nutrients, control of potential pests and disease carriers, provision of food - are rapidly being eroded by humanity's destructive impact on the complex biological network of the planet. Humanity is living on its capital, while rapidly destroying the natural systems that are its principal source of income."

Source: Ehrlich, A. and P. (1987) *Earth*, Thames-Methuen, London.

These ecological problems mean that people in many parts of the world are suffering from the effects of ecosystem decline. Examples of this include: water shortages in the Punjab, India; soil erosion in Tuva, Russia; fish kills off the coast of North Carolina, USA; landslides on the deforested slopes of Honduras; forest fires in Indonesia; spreading deserts in north Africa . . . the list is almost endless.

As a result, a recent international assessment of the state of the world's ecosystems concludes:

"If we choose to continue our current patterns of use, we face almost certain declines in the ability of ecosystems to yield their broad spectrum of benefits -- from clean water to stable climate, fuel wood to food crops, timber to wildlife habitat."



Five Pressing Issues

Unfortunately, it is not only nature at risk! When we think of environmental problems, we often think first of the pollution of the natural environment - of the air, rivers, oceans and seas - and issues of climate change, forest clearing, waste disposal and so on.

Yes, Spaceship Earth is displaying a lot of problems with its physical systems.

However, there are also many problems with the social systems for its 'passengers'. These problems are making life difficult for people all over the world. As a result, we are facing many pressing issues.

UNESCO has studied a wide range of these pressing issues and identified the following as the most serious:

- The rapid growth of the world's population and its changing distribution
- The persistence of widespread poverty
- The growing pressures placed on the natural environment
- The continuing denial of democracy and human rights and the rise of conflict and violence
- The very notion of 'development' itself.

Two Case Studies

It is important to note that there are close interrelationships between all these five pressing issues. Indeed, it is not possible for any of them to be:

"... examined or acted upon in isolation from the others. They are in constant interaction. Violence, for example, is, at once, a cause of poverty and its consequence. Growing populations place increasing stress on ecosystems, but human activity by contributing to climate change further intensifies population pressures through desertification and rising ocean levels. The issues, moreover, are not only related to one another in a physical manner, but also in a psychological sense. How people think about the issues - their knowledge, beliefs, attitudes and especially their values - is as important in the search for solutions as the 'objective realities' confronted."

Source: UNESCO (1997) Educating for a Sustainable Future: A Transdisciplinary Vision for Concerted Action, paragraph 24.

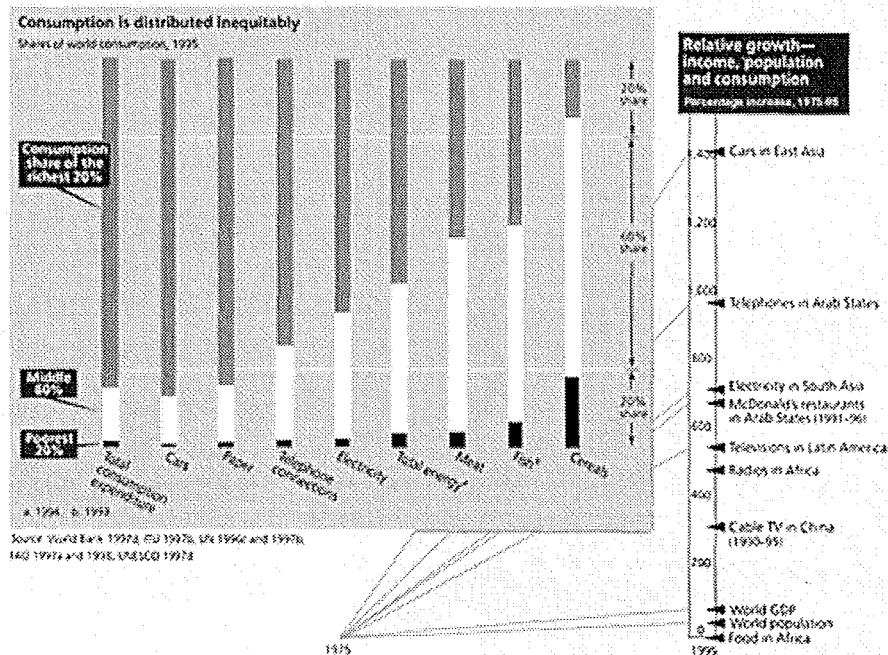
The following two case studies illustrate some of these connections:

- Unsustainable patterns of consumption around the world
- A descending spiral of unsustainable development.



Unsustainable Consumption

Examine a graph of the consumption habits of three groups of people in the world: the richest 20% , the middle 60% , the poorest 20%



Q1: Identify three conclusions that you can draw from patterns in the graph.

1

2

3

Q2: The poorest people in the world, on average, live in India and in Africa south of the Sahara. What two words best describe how these patterns for India and Sub-Saharan Africa make you feel?

1

2



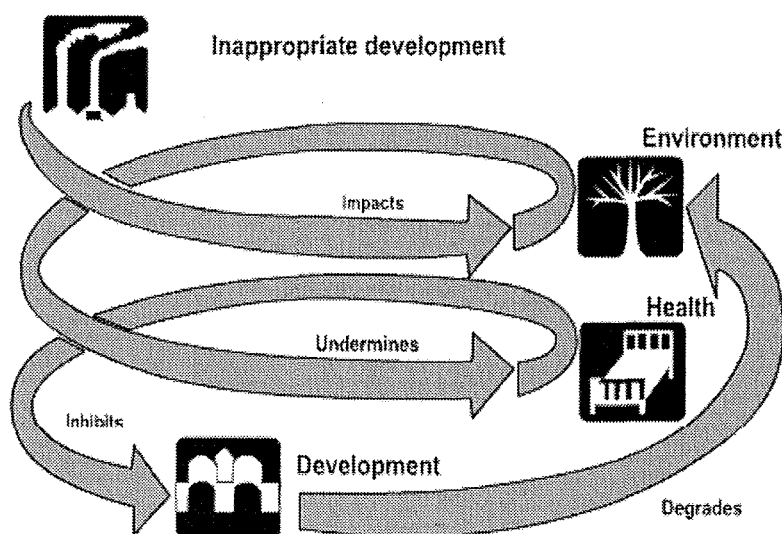
Q3: What do think might be some of the causes of these global inequalities in health?

Make brief notes to indicate what might be some of the environmental, social, political, economic or technological factors involved?

Factors	India	Sub-Saharan Africa
Environmental		
Social		
Economic		
Political		
Technological		

The Descending Spiral of Unsustainable Development

THE DESCENDING SPIRAL



Source: United Nations Environment Programme.

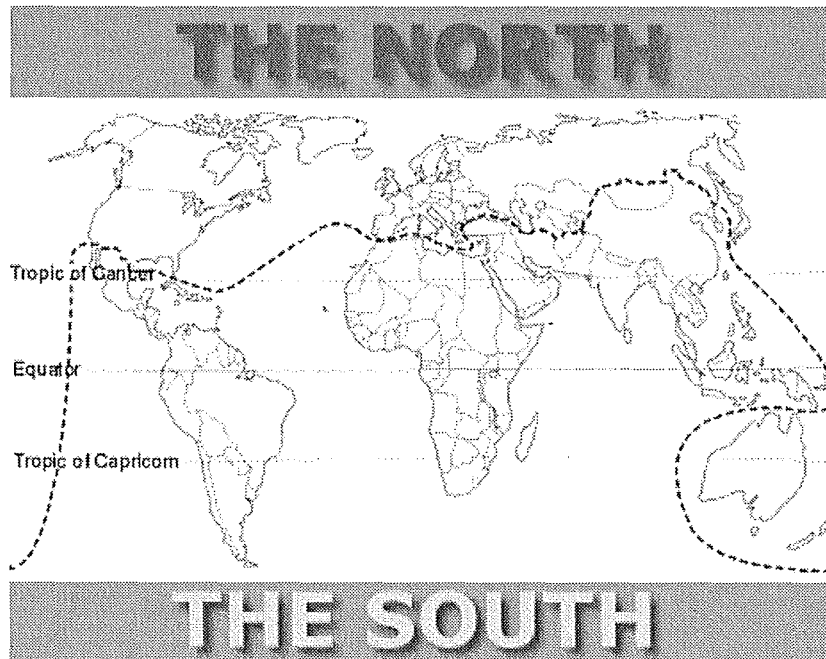
Conditions for most of the inhabitants of Planet Earth are far from good, as highlighted by the unequal patterns of consumption and health around the world. While total global economic production is huge, much of it is used very unwisely and unequally. The top 20% of the world's income earners – those living in the North - are generally doing well. However, the vast majority of people live in conditions of great poverty in many of the countries of the South.

Thus, for many people the world is in a descending spiral of declining living standards and declining environmental quality.

The descending spiral of unsustainable development is not the result of any one factor but, rather, of the reinforcing interactions of many problems. This was recognised in the 1987 Report of the United Nations World Commission for Environment and Development, commonly called the Brundtland Report, after Mrs. Gro Harlem Brundtland of Norway who chaired the Commission.

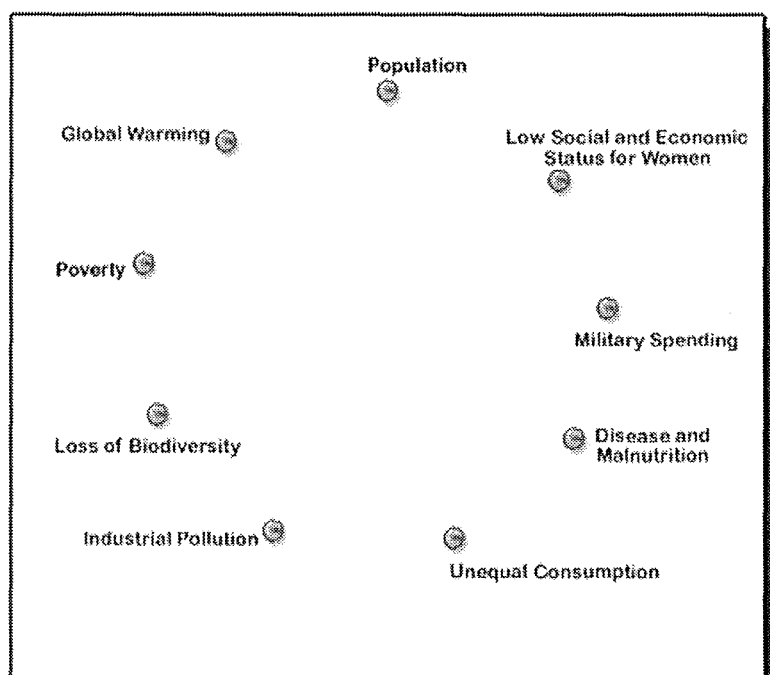
"Until recently, the planet was a large world in which human activities and their effects were neatly compartmentalized within nations ... and within broad areas of concern (environmental, economic, social). These compartments have begun to dissolve. This applies in particular to the various global 'crises' that have seized public concern, particularly over the last decade. These are not separate crises: an environmental crisis, a development crisis, an energy crisis. They are all one."

The Commissioners reported that this realisation made them focus on one central theme: many present development trends leave increasing numbers of people poor and vulnerable and at the same time degrade the natural environment. As a result, the descending spiral of unsustainable development can only be reversed by actions that simultaneously address social, economic and conservation goals: "No long-term strategy of poverty alleviation can succeed in the face of environmental forces that promote persistent erosion of the natural resources upon which we all depend. And no environmental protection programme can make headway without removing the day-to-day pressures of poverty that leave people little choice but to discount the future so deeply that they fail to protect the resource base necessary for their own survival and their children's well-being."



Activity 2: Exploring the links

The following tasks provide an opportunity for you to explore the connections between many of the major social, economic and environmental problems facing people in the world today. Some of these global realities are shown in this diagram.



Making the Links

- The diagram identifies nine major global issues. Draw a line between any two issues that you think are related.
- Describe why you think these two issues are related. Can you give an example of how? Now, starting from the second issue you identified, draw a line to another issue that you think it is related to. Once again, describe an example of how or why you think the two issues are related.
- Starting from the third issue, draw a line to another issue that you think is related to it. Once again, give an example of how or why you think the two are related.
- Keep making these links, and giving examples, until you have exhausted all possible connections between the issues.

Analysing the Patterns

Q4: Analyse the patterns you have made by answering the following questions:

How many connections/links did you make?

Do you believe that any of the links are more important than others? Which ones? Why?

How do links such as these affect the way in which social, economic and environmental problems need to be tackled?

What is the key lesson that you have learnt from this exercise?



Activity 3: Acting Locally

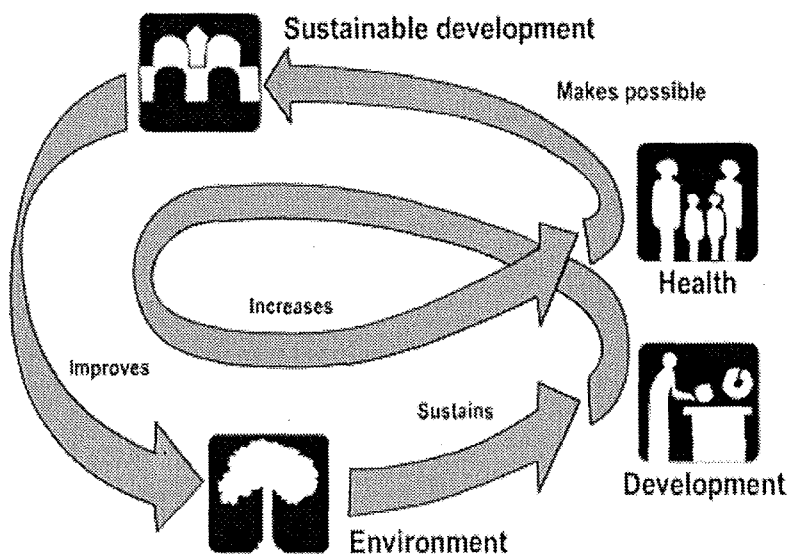
The conclusion of the World Commission on Environment and Development was that we need a new approach to development. The World Commission called this 'sustainable development'.

The message of sustainable development can be summarised in three themes:

- Everything is connected to everything else.
- Human quality of life is just as important as economic development.
- There can be no long-term economic development without attention to human development and the quality of the environment.

Given that these ideas are not 'new' and are already being practiced in many parts of the world, it is possible to change the direction of the descending spiral of unsustainable development into an ascending spiral of sustainability.

THE ASCENDING SPIRAL



The question, of course, is: how can this be done? This is an important question for governments, as well as businesses, schools, community groups, families and individuals. We all have a role to play in reversing the descending spiral and helping set the world on a path to a sustainable future. One reason for this is that major issues like the ones studied in the linking exercise are not just global - they also have national and local manifestations - and we need to be able to identify the level at which our actions can be most appropriate.



Scales of Action

We need to see the national and local aspects of global issues if we are to be able to identify actions that we, as people, can take. This activity uses the same nine issues you explored in Activity 2.

Q5: Complete the following table to identify global, national and local examples of some major issues. Some examples have been provided - and you might like to add issues of your own at the end of the list.

Issue	Global	National	Local
Loss of biodiversity			Removing trees for building houses and roads
Low social & economic status of women		Women often earn less than men for the same work	
Military spending	Billions of dollars could be spent on alleviating poverty		
Industrial pollution			
Unequal consumption			
Global warming			
Poverty			
Disease and malnutrition			
Other			
Other			



Activity 4: Strategic Questioning

Individuals, families and community groups are best placed to tackle global issues at the local level. The first step in learning such skills is to be able to ask the right sort of questions, questions that will lead to an action plan for change. Strategic Questioning is a valuable technique for this.

Strategic Questioning is a form of thinking about change developed by Fran Peavey, a social change worker from North America. Change sometimes causes uncomfortable emotions including denial, fear and resistance. However, change also provides opportunities for new ideas to emerge. Strategic Questioning assists the integration of new ideas and strategies into the development of communities in such a way that people can feel positive about change.

Six 'families' of question are used in Strategic Questioning. These move from introductory questions through to more dynamic and reflective questions. These six question families are:

- Observation Questions
- Change Questions
- Feelings Questions
- Personal Inventory and Support Questions
- Visioning Questions
- Personal Action Questions

Strategic Questioning helps people create their own solutions to their own problems. For example, Strategic Questioning has been used in India as a means of identifying strategies for improving water quality in the Ganges River. Local people, in partnership with the government, are developing new ways to clean up the river for themselves and their children.

In Strategic Questioning, people usually work in pairs, one as a 'speaker' and one as a 'listener', to discuss an issue of concern to the speaker.

The following is a set of the six families of Strategic Questions and a range of 'prompt questions' for each one.

To begin, select one of the local issues you identified in your learning journal, perhaps the one that you are most concerned about. It is important to state the issue in terms of a real, tangible local problem that actually concerns you and maybe other people in your community rather than an abstract or theoretical problem.

...For example:

Too general: 'I am concerned about the future of young people.'

Nice and specific: 'I am concerned about the future of young people in my city who seem unable to find a job after school.'

Too general: 'I am concerned about too many trees being cut down around the world.'

Nice and specific: 'I am concerned about the council's plans to cut down the trees along Catilla Road in order to widen it into a four lane highway.'



Observation Questions

...For example:

- What do you know about the issue?
- How did you learn about it?
- What other people are concerned about it?
- How does it affect your local area?

Feelings Questions

...For example:

- How do you feel about this issue?
- Has this issue affected your own physical or emotional wellbeing?
- What do you feel in your body when you think or talk about this issue?

Visioning Questions

...For example:

- What is the meaning of this issue in your own life?
- How could the situation be changed so it would be as you wished it to be?

Change Questions

...For example:

- What will it take to bring the current situation towards your vision?
- What exactly needs to be changed?
- How might these changes come about? Name as many ways as possible.

Personal Inventory and Support Questions

...For example:

- What would it take for you to participate in the change?
- What would you like to do that might be useful in bringing about these changes?
- What support would you need to work for this change?

Personal Action Questions

...For example:

- Who do you need to talk to?

How can you get others to a meeting to work on this issue?

Q6: State your issue as a concrete, tangible local problem.

I am concerned about:

1. Observation Questions

What do you know about the issue?



How did you learn about it?

What other people are concerned about it?

How does it affect your local area?

2. Feelings/Affective Questions:

How do you feel about this issue?

Has this issue affected your own physical or emotional well-being?

What do you feel in your body when you think or talk about this issue?

3. Visioning Questions

What is the meaning of this issue in your own life?

How could the situation be changed so it would be as you wished it to be?

4. Change Questions

What will it take to bring the current situation towards your vision?

What exactly needs to be changed?

How might these changes come about? Name as many ways as possible.



5. Personal Inventory and Support Questions

What would it take for you to participate in the change?

What would you like to do that might be useful in bringing about these changes?

What support would you need to work for this change?

6. Personal Action Questions

Who do you need to talk to?

How can you get others to a meeting to work on this issue?

Q7: Analyse your experience of learning through Strategic Questioning by answering the following questions:

What do you think of the Strategic Questioning process? For example: Was it difficult? Did you feel that it was an authentic way of communicating? Why?

Does the process help you feel more confident about the future?

Do you feel better prepared to engage in action after participating in the Strategic Questioning process?

How could the Strategic Questioning process be incorporated into your teaching?



Activity 5: Reflection

This module has introduced some ideas that are important for learning for sustainable futures.

Q8: To reflect on your study of this module, list the key message you will take away from each of the four activities you have completed.

Activity	Key message
Behind the news	
Exploring the links	
Taking action	
Strategic Questioning	

Q9: Now that you have completed this module, what do you think 'learning for a sustainable future' might mean? Write a definition here.

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Learning for a sustainable future is/means

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References and Internet Links

Brown, L.R. et al (2000) State of the World 2000, Worldwatch Institute, Washington DC.

Soubotina, T. P. with Sheram, K. A. (2000) Beyond Economic Growth: Meeting the Challenges of Global Development, World Bank Development Education Programme, Washington.

United Nations Children's Fund (2001) State of the World's Children 2001, UNICEF, New York.

United Nations Development Programme (2001) Human Development Report 2001, Oxford University Press, New York.

United Nations Educational, Scientific and Cultural Organisation (1999) World Social Science Report, UNESCO Publishing, Paris.

United Nations Educational, Scientific and Cultural Organisation (2000) World Culture Report, UNESCO Publishing, Paris.

United Nations Educational, Scientific and Cultural Organisation (2000) World Education Report, UNESCO Publishing, Paris.

United Nations Environment Programme (2000) Global Environment Outlook 2000, Earthscan, London.

World Bank (2001) World Bank Development Indicators 2001, World Bank, Washington DC.

World Resources Institute, United Nations Environment Programme, United Nations

Development Programme and World Bank (2000) World Resources 2000-01, Oxford University Press, New York.

Note: Most of these publications are updated annually.

Credits This module was written for UNESCO by John Fien from ideas in Teaching for a Sustainable World (UNESCO - UNEP International Environmental Education Programme).



3. Understanding sustainable development

Introduction

This module explores the emerging concept of 'sustainable development' which is now on the agenda of many governments, businesses, educational institutions and non-government organisations around the world. Much has been written in academic terms about the meaning of sustainable development and the need to integrate ecological and economic principles into personal and public decision-making.

However, there is no agreed definition of the concept and perhaps there is no need for one. This is because sustainable development concerns a process of change and is heavily reliant upon local contexts, needs and interests. Thus, sustainable development is an 'emerging concept' in two ways, first, because it is relatively new and evolves as we learn to grasp its wide implications for all aspects of our lives, and, second, because its meanings emerge and evolve according to local contexts.

Objectives

- To develop an understanding of the emerging concept of sustainable development;
- To analyse the value base behind a range of different interpretations of sustainable development;
- To appreciate the differences of approach to sustainable development in countries of the North and the South;
- To develop your own definition of sustainable development.

Activities

1. What is sustainable development?
2. Dimensions of sustainable development
3. Towards sustainable human development

Activity 1: What is sustainable development?

The global realities explored in Module 1 have led to many calls for a new approach to development. These calls have come from many quarters: community organisations, governments, members of the general public, senior business leaders, scientific researchers, academics and also many young people.

The Brundtland Report

The term 'sustainable development' was popularised by the World Commission on Environment and Development (WCED) in its 1987 report entitled *Our Common Future*. This book is also known as the Brundtland Report, after the Chair of the Commission and former Prime Minister of Norway, Gro Harlem Brundtland.



The aim of the World Commission was to find practical ways of addressing the environmental and developmental problems of the world. In particular, it had three general objectives:

- To re-examine the critical environmental and development issues and to formulate realistic proposals for dealing with them;
- To propose new forms of international co-operation on these issues that will influence policies and events in the direction of needed changes; and
- To raise the levels of understanding and commitment to action of individuals, voluntary organisations, businesses, institutes, and governments.

Key Issues

Eight key issues to ensure that development was sustainable, ie. that it would satisfy 'the needs of the present without compromising the ability of future generations to meet their own needs'. These eight issues were:

- Population and Human Resources
- Industry
- Food Security
- Species and Ecosystems
- The Urban Challenge
- Managing the Commons
- Energy
- Conflict and Environmental
- Degradation

Impacts in the North and South

These issues have different impacts in the developing countries of the South and the industrial countries of the North.

Which issues pose the greatest challenge to sustainable development in your part of the world? (ie. either the North or South. But note that it is possible for people in the South to live a Northern lifestyle and for many poor people in the North to have a lifestyle close to those in the South).

After you have finished this analysis, repeat the exercise for the other part of the world.

Q1: Which issues pose the greatest challenge to sustainable development in the part of the world you live?

Q2: Describe the similarities and differences between the key issues in your country and the key issues in a different part of the world.

Agenda 21

These issues - and many others like them - were discussed at a major international conference in Rio de Janeiro, Brazil, in June 1992. Known as the United Nations Conference on Environment and Development - or more simply as the Earth Summit - this meeting brought together nearly 150 Heads of State where they negotiated and agreed to a global action plan for sustainable development which they called Agenda 21.

Sustainable Human Development

Since the Earth Summit, sustainable development has been a key theme as a series of United Nations conferences discussing pathways to development. These conferences have shown that the interdependent links between environment and development are not simply about conservation and economics, but also include a concern for issues such as human rights, population, housing, food security, and gender that are important parts of sustainable human development. This has involved conferences on:



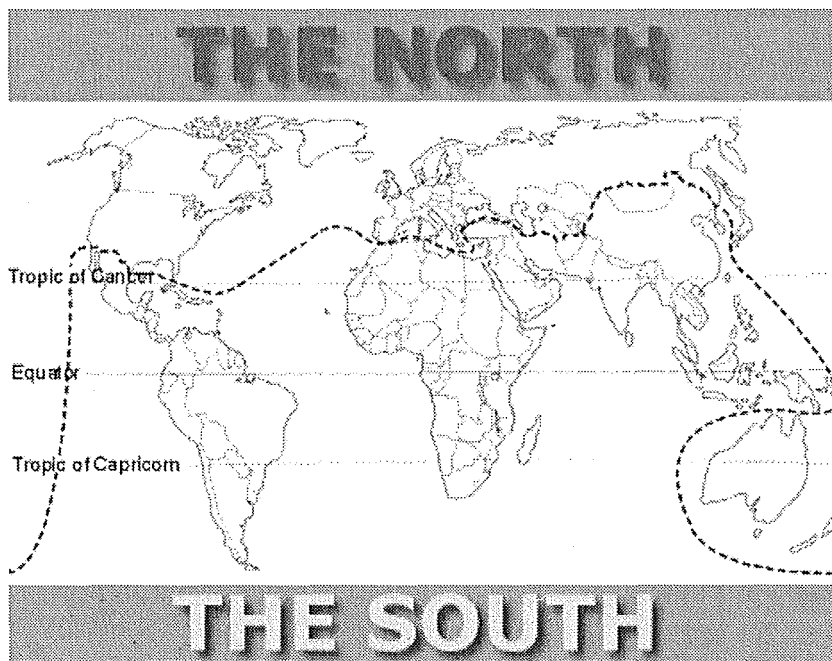
- Human Rights - World Conference on Human Rights - Vienna, Austria, 1993
- Population - International Conference on Population and Development - Cairo, Egypt, 1994
- Social Development - World Summit for Social Development - Copenhagen, Denmark, 1995
- Women - Fourth World Conference on Women - Beijing, People's Republic of China, 1995
- Housing and Settlements - Second United Nations Conference on Human Settlements (Habitat II) - Istanbul, Turkey, 1996
- Food Security - World Food Summit - Rome, Italy 1996

Action on these quality of life issues has been reviewed in a series of follow-up conferences.

- Environment and Development - Rio+5, 1997
- World Conference on Sustainable Development - Johannesburg, 2002
- Human Rights - Vienna+5, 1998
- Population - Cairo+5, 1999
- Social Development - Copenhagen+5, 2000
- Women - Beijing+5, 2000
- Housing and Settlements - Istanbul+5, 2001
- Food Security - Rome+5, 2001

Q3: Which of these international conferences on sustainable human development would you have most liked to attend? Why?

These conferences provided an opportunity for the international community to start talking about a Comprehensive Development Framework and, eventually, to agree on a set of international development goals. These take a holistic approach to development in which there is a balance between all dimensions of development - social, economic, political and ecological.



Sustainable Development - Key Issues to Address

Population and Human Resources

- World population reached 6 billion in 1999 and could pass the 8 billion mark by 2025.
- The most rapid population growth is in the South, eg. Africa, Asia and Latin America.
- The degree of consumption of resources per capita differs markedly between the South and the North.
- Health status, education levels and social conditions also differ greatly between the South and the North.

Food Security

- There is widespread hunger today despite the dramatic increase in the world production of cereal, meat and milk which have more than tripled since 1950.
- The increase in food production has been due to new methods of farming, including the use of new seed varieties, chemical fertilisers and pesticides, and increased irrigation - but the cost of these inputs is beyond the reach of most small farmers.
- New methods of farming have had detrimental effects on the environment.
 - New seed varieties are not generally resistant to pests and require large amounts of water and chemicals.
 - Overuse of chemical pesticides and fertilisers has led to widespread pollution of water and biological magnification of these chemicals in food chains.
 - Irrigation has also caused salinisation and alkalinisation of soils.
- Farm subsidies in the North result in over-production. Not only does this overuse land, it also affects opportunities for other countries to produce and sell food.
- The international debts of many countries in the South have led to the use of land to produce cash crops for export. This pushes subsistence farmers onto marginal lands which in turn contributes to widespread soil degradation.

The Urban Challenge

- About 50% of the world's population lives in urban communities.
- Most cities in the South have more than quadrupled in population in the last 30 years.
- Population pressure has resulted in inadequate urban infrastructure and services.
- The most serious problems are unemployment, poor housing conditions and environmentally and socially related health concerns.

Energy

- By the year 2025 global energy consumption will have increased by 40% over 1980 figures.
- The most used energy sources for commercial energy production and consumption are:
 - fossil fuels, such as oil and gas;
 - hydropower;
 - nuclear power; and
 - biomass fuels (wood, crop residues and dung) on which the majority of people in the South rely for their energy supplies.
- Renewable energy amounts to only 21% of the total energy consumed worldwide. Solar, wind, geothermal and alternative energy sources, such as ethanol, have found only limited, smallscale use.
- The dependence on fossil fuels, which are finite, has resulted in four major problems:
 - large-scale climatic change resulting from the emission of carbon dioxide (Greenhouse Effect);
 - urban air pollution and acidification as a result of the release of sulphur dioxide and nitrogen dioxide during combustion;
 - depletion of resources; and
 - international conflict.



- Nuclear power also causes problems:
 - o health risks to workers involved in its production and disposal of the wastes
 - o health risks to the community
 - o risk of catastrophic accident
 - o need for very strict security.

Industry

- Industrialisation brings economic growth but also leads to a shift in population from rural to urban areas and escalating pollution of air, sea, the land and rivers.
- The pattern of industrialisation in the South now mirrors that of the industrialised nations and presents similar social and environmental problems.
- The ability of developing countries to deal with such problems as the disposal of hazardous wastes and industrial pollution has not been as great as in the industrialised nations due to cost, trade and technological inequalities between countries.

Species and Ecosystems

- The estimated total number of species on Earth ranges from 5 to 30 million.
- The most biodiverse ecosystems are the wet tropical forests.
- For example the forests of Latin America could contain over one million species of plants, animals, birds and insects.
 - The depletion of the gene pool has serious implications for the global economy since a substantial proportion of the production of medicines and drugs depends on species found in the tropical forests.

Managing the Commons

- The world's oceans, Antarctica and space are part of the 'global commons' for which all nations have joint responsibility.
- Marine environmental problems such as over-fishing and marine pollution are increasing rapidly.
- The sustainable catch from world fisheries is being exceeded by as much as 30 million tonnes per year (FAO figures).
- Sources of marine pollution include municipal sewage, industrial and agricultural run-off, oil spills and the dumping of toxic and other hazardous wastes.
- Management of Antarctica is governed by the Antarctic Treaty System. The dominant issues facing nations that are signatories to the System include the growing stockpiles of waste, the extent to which there should be mining of the continent's minerals, and the exclusion of most nations from much of the decision making about Antarctica.
- The increasing amount of space 'junk' is a pollution problem that has been largely overlooked. It indicates the need for international agreements on the issue. Management of outer space by the 1967 Outer Space Treaty has not been endorsed by all nations.

Conflict and Environmental Degradation

- Environmental degradation caused by factors such as overexploitation of the land, drought and global climatic changes leads to deepening poverty and famine, which in turn contribute to social unrest and conflict.
- The threat of nuclear war presents us with the possibility of unprecedented global ecosystem destruction.
- Excessive military expenditure diverts funds from the urgent environmental problems facing developing nations.

Source: Adapted from Macleod, H. (1992) Teaching for Ecologically Sustainable Development, Queensland Department of Education, Brisbane.



Activity 2: Dimensions of sustainable development

The World Commission concluded that: "Environment and development are not separate challenges. Development cannot subsist on a deteriorating environmental resource base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction. These problems cannot be treated separately by fragmented institutions and policies. They are linked in a complex system of cause and effect.,,"

Source: World Commission on Environment and Development (1987) *Our Common Future*, Oxford University Press, Oxford, p. 37.

The WCED therefore argued for an approach to development that would take into account the relationship between ecological, economic, social and technological issues. The WCED called this approach 'sustainable development' defining it as:

"... development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Source: World Commission on Environment and Development (1987) *Our Common Future*, Oxford University Press, Oxford, p. 43.

Four Dimensions of Sustainable Development

Sustainable development requires simultaneous and balanced progress in four dimensions that are totally interdependent:

- Social
- Economic
- Ecological
- Political



Q4: Identify examples or aspects of these four dimensions in the photograph.

You may have found it difficult to distinguish these different dimensions in the photograph. This is because there are always close linkages among them. Similarly, decisions or actions in one area always affect the others.



For example, if economic development is to be sustainable:

- it cannot neglect environmental constraints or be based on the destruction of natural resources;
- it cannot succeed without the parallel development of social resources;
- it will require transformation of the existing industrial base and the development and diffusion of more Earth-friendly technologies;
- it must consider the needs of all species and their rights to enjoy the same quality of life and share of resources;
- it must support fairness between all people so that everyone can enjoy the same standard of living and the same level of access to resources and quality of life; and
- it must consider the needs of future generations.

Investigate why development is more than just economic growth - according to a World Bank Development Outreach report.

A Dynamic Balance

As a result of the close relationships between the four dimensions of sustainable development, achieving this goal requires a dynamic balance between:

- Production and consumption;
- Ecology and economics; and
- Development and conservation.

However, the particular nature of the balance between these factors will vary between the developing countries of the South and the industrial countries of the North.

Analyse these three aspects of dynamic balance for sustainable development from the viewpoints of both the South and the North.

Many commentators on sustainable development often refer to what they call "the triple bottom line" of economic sustainability, social sustainability, and ecological sustainability. In such cases, the focus is only on three dimensions of sustainable development - social, economic and environmental.

Sometimes these are referred to as the "3 E's" of sustainable development – Equality, Economy, and Ecology.

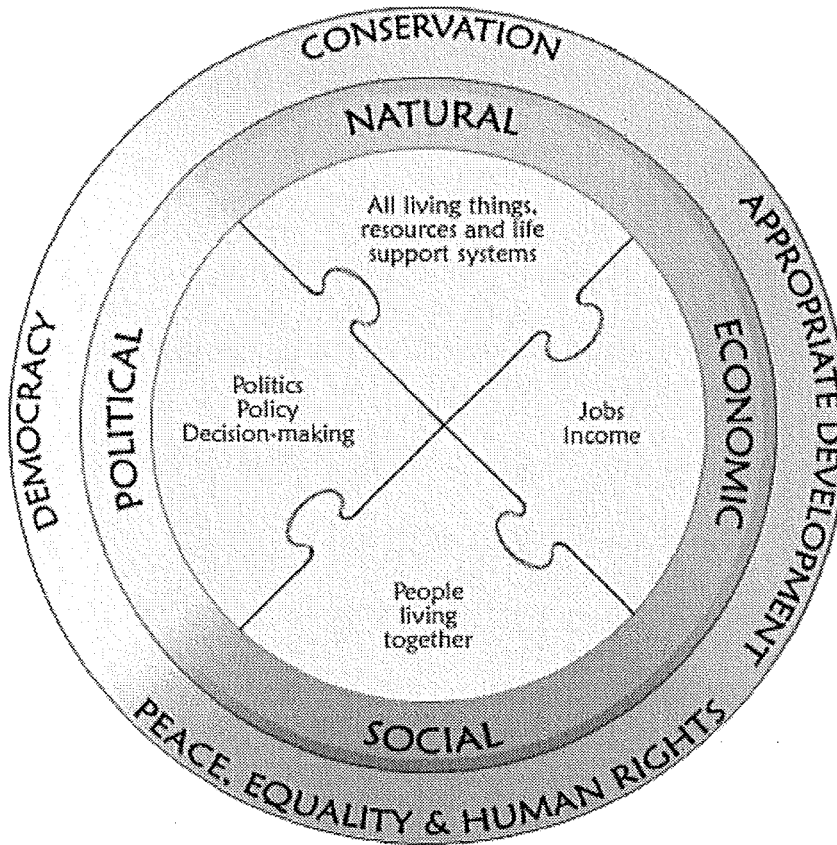
Q6: Do you think it matters that the political dimension of sustainable development is left out? Why?

Two Obstacles

The WCED argued that sustainable development - based upon qualitative and fair patterns of economic growth - was not likely to be achieved unless two barriers which contribute to the present inequitable and, therefore, unsustainable structures of the world were addressed - poverty and population dynamics.

Analyse these two obstacles.





Four Dimensions of Sustainable Development

Activity 3: Towards sustainable human development

Different Definitions and Values

The definition of sustainable development proposed in the Brundtland Report and Agenda 21 has been adopted in many countries. However, the idea of 'development that meets the needs of the present without compromising the ability of future generations to satisfy their needs' has been interpreted in many different ways. In fact, several hundred different definitions of sustainable development now exist.

While these definitions seek to make the broad definition from the Brundtland Report and Agenda 21 more concrete, many tend to reflect different emphases in the social, economic, ecological and political dimensions of sustainable development.

You can practise this skill by analysing the emphases in five different definitions of sustainable development.

Q6: Which of the five definitions did you like best? Why?

Q7: Which of the five definitions did you like least? Why?



The United Nations Millenium Assembly

The General Assembly of the United Nations met from 6-8 September, 2000 in a special Millenium Summit where a special United Nations Millenium Declaration was adopted. This Declaration emphasised the social aspects of sustainable development and the importance of overcoming poverty and inequality. It declared that sustainable human development is central to world peace and future progress:

"We recognise that, in addition to our separate responsibilities to our individual societies, we have a collective responsibility to uphold the principles of human dignity, equality and equity at the global level. As leaders we have a duty therefore to all the world's people, especially the most vulnerable and in particular, the children of the world, to whom the future belongs.,,

References: (2000) Sustainability: Searching for Solutions, New Internationalist, 329, November Issue. Ayres, R. (1998) Turning Point: An End to the Growth Paradigm, Earthscan, London.

Hammond, A. (1999) Which World? Scenarios for the 21st Century: Global Destinies, Regional Choices, Earthscan, London.

IUCN, UNEP and WWF (1991) Caring for the Earth: A Strategy for Sustainable Living, IUCN, Gland, Switzerland.

Orr, D. (1992) Ecological Literacy: Education and the Transition to a Postmodern World, State University of New York Press, Albany, Ch. 2.

Paden, M. (ed) (1992) Teachers Guide to World Resources 1992-93, World Resources Institute, Washington.

Robertson, J. (1998) Transforming Economic Life, Green Books for the Schumacher Society in association with the New Economics Foundation.

Soubbotina, T. P. with Sheram, K. A. (2000) Beyond Economic Growth: Meeting the Challenges of Global Development, World Bank Development Education Programme, Washington.

Wackernagel, M. and Rees, W. (1996) Our Ecological Footprint: Reducing Human Impact on the Earth, New Society Publishers, Gabriola Island, BC, Canada.

World Commission on Environment and Development (1987) Our Common Future, Oxford University Press, Oxford.

Worpole, K. (Ed) (1999) Richer Futures: Fashioning a New Politics, Earthscan, London.

Internet Sites: There are literally thousands of Internet sites about sustainable development. Many sites also provide links to other useful ones. The following sites have many very useful links: International Institute for Sustainable Development, Second Nature, Sustainability Web Ring, Sustainable Development, Gateway, United Nations Commission for Sustainable Development, United Nations Food and Agricultural Organisation World Resources Institute

Credits: This module was written for UNESCO by John Fien and uses some materials and activities prepared by Hilary Macleod for Teaching for a Sustainable World (UNESCO - UNEP International Environmental Education Programme).



4. A future perspective

Introduction

"The future does not exist. There is only the present, but within this present, there is the idea that we have a future. And there are also within this present, the attitudes, behaviour patterns and habits that constitute both our history and institutions. The future is not therefore something to be discovered, like an existing terra incognita. The future is to be created, and before being created, it must be conceived, it must be invented and finally willed."

Source: Bertstecher, H. (1974) in Hutchison, F. (1996) *Educating Beyond Violent Futures*, Routledge, London, p. 36.

Nevertheless the future is an essential ingredient of daily life and integral to all human experience. Virtually every activity we engage in presumes some future continuation in time. Whenever we have aims, ambitions, make plans or take precautions, speculate or make commitments, we are concerned with the future. Without some sense of the future we could not even begin to articulate our hopes and dreams, let alone realise them. Thus, thinking and planning for the future is an essential and constant ingredient in all human endeavour.

This module introduces the concept of alternative futures and encourages you to explore your own expectations and aspirations for the future, both in relation to your own country and the wider world - and then to analyse how these views of the future need to be integrated into the objectives of learning.

Objectives

- To recognise the importance of a futures perspective.
- To analyse personal views of preferable and probable futures; and
- To clarify how visions of a sustainable future can be integrated into the learning.

Activities

1. Education for the future: A rationale
2. Analysing future trends
3. Alternative futures: Probable and preferable futures
4. Analysing your futures
5. Envisioning a sustainable future
6. Reflection

Activity 1: Future education

Futures Education

When we think about the pace of change over the last ten to twenty years, we know that the 21st century will be very different from the past. Yet, surprisingly, the future is often a neglected concern in education.

Why is this the case, when we know that:

- Young people are concerned about global issues but also often feel unprepared for what the future might bring; and
- Most of what goes on in education draws on the past, is enacted in the present, but is intended for some future use?



If it is true that all education is for the future then the future needs to become a more explicit element in all levels of education. However, in a world where change seems increasingly rapid, whether at local, national or global levels, it is important to ask questions about the future.

- Where are we going and where do we want to go?
- What are my hopes and dreams for future, for myself, for others and for the planet?
- What can we do together now in order to help create a more just and sustainable future?

Answers to questions such as these provide reasons for integrating a futures perspective into education and learning.

Experiencing the Future

Across the world, people have quite different hopes for the future. These depend, for example, on our political allegiance, income, gender, age or ethnicity. For example, the hopes of the rich and the poor, the powerful and the powerless tend to be different. Similarly men and women, the young and the old, and the hopes for the future of people living in the rich North tend to be concerned with satisfying their wants, not their needs, while in the South, issues of human rights, and concerns about access to basic food, education, housing and health services are common concerns of the present and the future. These are issues of sustainable human development.

Many decisions about the future may be outside our direct control, but the images and expectations that we have of the future affect what we think is worth doing in the present. Fear of the future can be disempowering but it can also lead to engagement in social and political action to bring about change. The resurgence of the peace movement and the women's movement in the early 1980s and, more recently, the environmental movement are cases in point. The images that we have of the future matter because they help determine what we feel is worth working for today.

The beginning of a new century seems to concentrate the mind on the future, even more so the beginning of a millennium. The new millennium presents us with an opportunity to re-examine ourselves, our values and institutions, and how we feel about the world we have inherited and will leave for our children and grandchildren.

Wants

Wants are the goods and services that people consume to satisfy their perceptions of what they 'need' to be:

- accepted by others, such as designer fashions, cosmetics, big or sporty cars, the latest music, etc.;
- relaxed and comfortable, such as new furniture, bigger house, overseas holiday, etc.; and
- free of boredom, such as restaurant and cinema outings, MTV, computer games, etc.

The perception of 'wants' varies between people in different cultures and socio-economic systems.

There is not necessarily anything wrong in having 'wants' and satisfying them. However, 'wants' become a problem when we begin to confuse them with 'needs'. This generally happens as a result of advertising and other market pressures.

Very often, our 'wants' - and even many of the things considered 'needs' in affluent societies - are the result of ideas of the 'good life' created by the media and advertising industries.

Needs

Needs are the goods and services that people consume in order to:

- satisfy basic physical needs, such as food, clean water, housing and clothing; and
- provide a satisfying quality of life, such as good health, education and access to family and friends.

The perception of 'needs' varies between people in different cultures and socio-economic systems.



Activity 2: Analysing future trends

No one can predict the future with any high degree of accuracy. Indeed, if we know anything about the future at all, it is that the future will be very different from life today. Many social scientists agree that several key trends will shape human society over the next decade.

Eight of these trends include:

- Increasing cultural differences
- Religious revival
- Globalisation
- Rising environmental concern
- Increasing gender equity
- Increasing poverty
- Advances in biotechnology
- Technology

How much effect are these trends having on your life now? How much effect will they be having in the next 10 years? Score each of these trends using the scale.

Now	not much effect		medium effect		major effect	
10Yrs	not much effect	less than now	same as now		much more than now	
	A	B	C	D	E	F

The Next Ten Years - Key Trends Shaping Society

- Increasing cultural differences: Ethnic, cultural and historical differences amongst peoples will increasingly influence national and global affairs in the future.
- Globalisation: Transnational corporations now span the globe and are integrating all countries into a global system of economic interdependence and cultural uniformity.
- Increasing gender equity: Women are increasingly taking command of their own lives, both at work and at home. As gender relations become more equal, social priorities will change, and this will have a significant impact on the way in which society is organised and run.
- Advances in biotechnology: The new scientific frontier of genetic engineering is about to transform our lives whether we like it or not. This includes both the creation of new plant and animal breeds as well as the alteration of human genes.
- Religious revival: There are now clear signs of a worldwide religious and spiritual revival, ranging from the growth of fundamentalist and evangelical groups to the spread of New Age beliefs and a renaissance of more ancient traditions.
- Rising environmental concern: Due to issues such as global warming and ozone depletion there is now an upsurge of popular interest in environmental issues. Increasingly, people are aware of the need to preserve and nurture the planet itself.
- Increasing poverty: The nature of the world economic system is such that the gap between the countries of the rich North and the poor South will continue to increase. This growing division will continue to create serious problems in the future.
- Technology: The increasing spread of computers in offices, factories, shops, schools and the home is changing the way people live, work and play.



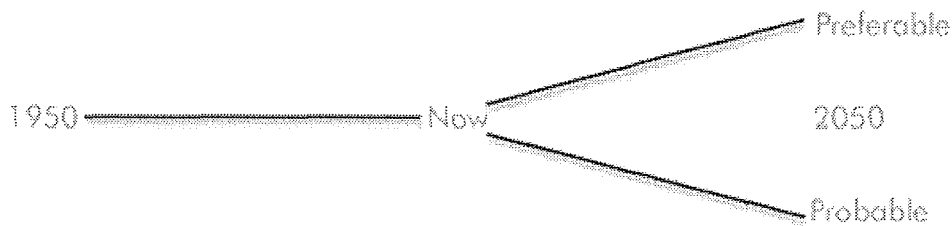
Activity 3: Alternative futures: Probable and preferable futures

Studying alternative futures and drawing on the tools and techniques that futurists use can greatly enhance any investigation of contemporary social, political, economic and technological issues.

The distinction between Probable and Preferable Futures is one of the most useful frameworks for exploring alternative futures.

Global Futures Timeline

This activity enables you to think about how these trends will affect the future under the heading of 'My Life in the World: The World in My Life'. However, instead of predicting only one future, the activity asks you to predict what you would like to happen (your 'Preferable Future') as well as what you think is most



- On the left-hand side of the timeline, mark 3-5 important past events and current trends that have affected, are affecting and/or will affect you and world society.
- On the 'Probable Futures' line, mark 3-5 events and trends that you expect to occur within the next hundred years.
- On the 'Preferable Futures' line, mark 3-5 events and trends that you would really like to see happen within the next hundred years.

Q1: Analysing the timeline

What are the main similarities/differences between your 'Preferable and Probable' futures?

Why are there these similarities?

Why are there these differences?

Probable Futures are all those which seem likely to come about. They are often arrived at by the extrapolation of current trends, whether in relation to levels of population growth, car ownership, health or global warming. Forecasts are then made about what is most probably going to happen. Most of the long-term planning carried out by business and industry is of this nature. When people think about the future it is often their image of the probable future that comes to mind. Much of the current debate about global warming, for example, is about which figures for temperature increase are most likely. Depending on which forecast is taken, the consequences in terms of sea-level rise and changing climate vary considerably.

Preferable Futures are all those which people would like to come about. Such desirable futures are based on our hopes, aspirations and dreams. They embody our notions of what a better world might be like. Throughout history it has been such visions which have inspired struggles for better working conditions, the right to free speech and the right to vote. We benefit today from what others fought for in the past, inheriting crucial elements of their Preferable Futures.

Activity 4: Analysing your futures

People's views of the future can vary radically depending on their underlying assumptions and values. Consider the following five sketches of commonly held visions of the future. What elements of (one or more of) them are in your Preferable and Probable Futures?

- Business as usual
- Edge of disaster
- Authoritarian control
- Technological miracles
- Sustainable society

The future we will experience may well involve a mix of all these elements depending in part on who we are and where we live on this planet.

Look at the trends you marked on your Probable and Preferable Futures Timelines. Identify - guess-timate - the approximate percentage of each of the five types of visions in your visions of Preferable and Probable Future.

Q2: Identify elements of these five visions that may be part of your Probable and Preferable Futures.

How may the Probable Future affect your life personally?

What sort of action is needed to bring your Preferable Future about?

What organisations are already working towards such a future?



Five Sketches - Commonly Held Visions of the Future

Business as usual

This vision is held by those who argue that the future will be very much like today. In other words, there will be the usual alarms and excursions, but nothing that cannot be effectively dealt with. The main problems in the future will be similar to those of today and solvable in similar ways; in short, the world will go on much as it has done before.

Edge of disaster

This vision is held by those who believe that we are on the verge of one or more major catastrophes, the signs which are already clearly evident. They range from accidental nuclear war, major famine and poverty, breakdown of law and order, to environmental pollution and global warming. Life as we know it is on the verge of breakdown and when various elements collapse it will never be the same again.

Authoritarian control

This vision is held by those who feel that the risk of disaster is so great that the best solution is imposition of some form of strict external authority. Only this will be able to prevent major disorder by controlling, for example, population growth or the use of increasingly scarce resources. In this way chaos and confrontation, whether national or international, can be avoided.

Technological miracles

This vision is held by those who believe that the answer to most problems lies in the accelerated growth of science and technology. Thus, nuclear energy, computerisation, genetic engineering, lunar colonisation, are all seen as offering dramatic rewards, especially for business.

Sustainable society

This vision is held by those who believe that the future must involve a major change in direction, away from a mechanistic and fragmented view of the world to a more holistic and ecological one. It requires a major shift away from the technical and economic goals towards a more humane, and sustainable society.

Activity 5: Envisioning a sustainable future

The visions that we have of the future affect what we think is worth doing in the present. Fear of the future can be disempowering but it can also lead to engagement in social and political action to bring about a different sort of world. The peace, women's, and environmental movements are cases in point. The visions we have of the future matter because they help determine our priorities in the present.

Visions of the future play a critical role in the creation of change. They are continuously being promoted by business, advertising, politicians, the media and in science fiction. They exert a powerful influence over what people think is, or is not, worth doing in the present. We can most easily work towards the future we prefer if we have clear images of where we want to go and how we might get there. Sharing the process of envisioning these futures with others enhances their creative power, both at the individual and societal levels. As Elise Boulding writes:



Images of a Sustainable Future

A crisis of direction in society, national or global, may stimulate the emergence of new guiding images. In this period of rapid change and social upheaval we should be searching for new guiding images - it may well be that the concept of sustainability provides just such an image.

The principles in the Earth Charter provides four basic images or goals for a sustainable future:

- Respect and care for the community of life
- Ecological integrity
- Social and economic justice
- Democracy, non-violence, and peace

Q3: Respect and care for the community of life

Why is this a critical goal for a sustainable future?

What might it look like in practice?

What should educators be doing about this goal?

Q4: Ecological integrity

Why is this a critical goal for a sustainable world?

What might it look like in practice?

What is already being done to achieve such goals and by whom?



Q5: social and economic justice

Why is this a critical goal for a sustainable world?

What might it look like in practice?

What is already being done to achieve such goals and by whom?

Q6: Democracy, non-violence and peace

Why is this a critical goal for a sustainable future?

What might it look like in practice?

What is already being done to achieve such goals and by whom?

What should educators be doing about this goal?



Activity 6: Reflection

Summarise what you believe is important in this module by answering the following questions.

Q7: Why is a futures perspective important?

Q8: What aspects of global trends:

- a) provide opportunities to envision a sustainable future?
- b) provide barriers to envisioning a sustainable future?

References: Beare, H. and Slaughter, R. (1993) Education for the 21st Century, Routledge, London.

Hicks, D. (1994) Educating for the Future: A Practical Classroom Guide, Worldwide Fund for Nature UK, Godalming.

Hicks, D. (2000) Citizenship for the Future: A Practical Classroom Guide, Worldwide Fund for Nature UK, Godalming.

Hicks, D. and Slaughter, R. (eds) (1998) Futures Education: The World Yearbook of Education, Kogan Page, London.

Meadows, D., Meadows, D. and Randers, J. (1992) Beyond the Limits: Global Collapse or a Sustainable Future, Earthscan, London.

Slaughter, R. (1999) Futures for the Third Millennium, Prospect Media, Sydney.

Tough, A. (1992) Critical Questions About the Future, University Press of America, New York.

Wagar, W. (1992) The Next Three Futures: Paradigms of Things to Come, Adamantine Press, London.

Credits: This module was written for UNESCO by John Fien from materials first prepared by David Hicks for Teaching for a Sustainable World (UNESCO - UNEP International Environmental Education Programme).



5. Values (optional)

Introduction

The values and attitudes we live by affect how we relate to other people and to all our activities in the environment, and so are a major influence on our prospects for achieving a sustainable future.

Although they cannot be separated from cognitive understanding, values and attitudes relate to the affective (or emotional) dimension of human behaviour. While values and attitudes are similar in this regard, they differ in several important ways.

- Values are generally long-term standards or principles that are used to judge the worth of an idea or action. They provide the criteria by which we decide whether something is good or bad, right or wrong.
- Attitudes predispose us to respond in particular ways to people and events. They are not so deeply felt as values and quite often change as a result of experience.

This module provides an opportunity to consider the importance of human values and attitudes in shaping the future. It also provides ideas and examples for two categories of strategies for exploring values in the classroom - values clarification and values analysis.

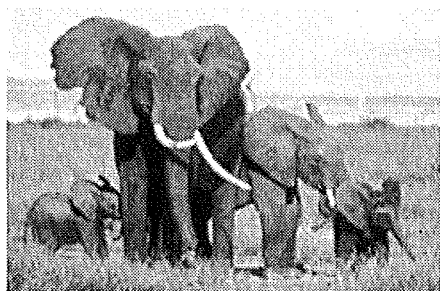
Objectives

- To develop an understanding of values education strategies;
- To consider the relation between values and personal behaviour affecting the achievement of sustainable futures;
- To reflect on your futures awareness, commitment and actions; and
- To develop skills for using values clarification and values analysis at your work.

Activities

1. The Elephant Dilemma
2. Towards an ethic of sustainability
3. Reflection

Activity 1: The Elephant Dilemma



The module commences with an opportunity to review a range of different values about animal conservation through a case study of The Elephant Dilemma in Africa.

In 1979, there was over 1.3 million elephants in Africa. By 1995 this had shrunk to between 300,000 and 600,000 with 80% of the elephants in eastern Africa lost. Increases in human numbers, and the expansion of their activities into the elephant's range were key factors in this. However, the age-old problem of elephant poaching to meet the worldwide demand for ivory, has been the major cause of this disastrous decline in elephant numbers.

Alarmed by the rate of elephant poaching, the Convention on International Trade in Endangered Species (CITES) banned all trade in ivory and other elephant products in 1990.

However, the conservation of the African elephant is a complex wildlife management issue. With better anti-poaching measures and strict trade bans in place, elephant numbers grew rapidly in some areas. However, the area of land available to them remained restricted. This has had a major effect on the biodiversity of local ecosystems and a range of new management strategies introduced, such as culling elephant numbers and removing some to other territories.

Culling is a controversial management practice. Some say that it is cruel to kill such a beautiful and majestic animal. However, others are concerned about the deteriorating condition of ecosystems where there are too many elephants and by the damage to farm crops that is increasingly becoming a problem.

And what should governments do with the stockpile of ivory from elephants that are culled? Many of these countries have low levels of national income and have argued that it is unfair to stop them from earning money from exporting their legally gathered ivory stores.

Read a report on Conserving Africa's Elephants Current Issues & Priorities for Action prepared by the Worldwide Fund for Nature (WWF) for additional information on this issue.

At the April 2000 Conference of the Parties to CITES, (ie. the countries who have signed the CITES Convention) decisions were made to slightly relax the trade ban on elephants to try to reduce the number of elephants in a controlled way and enable African countries to earn some income from ivory exports.

Q1: Imagine you were a journalist at the April 2000 Conference of the Parties to CITES. Identify three types of persons you would need to interview in order to obtain a comprehensive understanding of different viewpoints on the Elephant

1.

2.

3.

Q2: Make a list of (i) three arguments for and (ii) three arguments against relaxing the international ban on trade in ivory and other elephant products.

FOR	AGAINST
1	1
2	2
3	3



Q3: What beliefs about (i) animal rights, (ii) economic development, and (iii) social development lie behind these contrasting views?

Beliefs about...	FOR	AGAINST
Animal Rights		
Economic Development		
Social Development		

Activity 2: Towards a ethic of sustainability

A sustainable future depends upon people living according to values and principles of sustainability, including:

- Social Equity and Peace
- Appropriate Development
- Conservation
- Democracy

These values reflect the four dimensions of a sustainable future.

Review the way these four dimensions are integrated into the ethical principles in the Earth Charter.

Ethics and Sustainability

Changing our lifestyles and the way our social institutions operate so that they reflect these values will require the co-ordinated efforts of all of us - and time.

The next few decades are crucial in this respect.

Only an ethic of sustainability can change the basic relationships that people have with the Earth and with each other. Lifestyles are a matter of the choices we make and our values. But individuals, groups and societies are often divided over which values to choose. This is especially true when the resources that support life are limited and there are competing demands for them.

Ethics help resolve such conflicts. By pointing out what is right and what is most worthwhile, ethics encourage people to think about the most important issues involved in their choices.

Ethics do not give easy answers to the dilemmas of life, but they can encourage people to choose the options that serve the best interests of others as well as themselves. Ethics can also motivate people to make the sacrifices such choices often require.

In a world of limited resources, conflicting values, and competing individuals and groups, an ethic of sustainability can help the way human beings learn to cooperate with each other and the rest of nature for the mutual well-being of all.

Ethics are, therefore, essential for sustainability. Every society that has treated the land and its citizens well has had a responsible ethic of sustainability. What is unprecedented today with emerging trends towards globalisation is the need for such an ethic to be more widely understood and practised.

A responsible ethic of sustainability provides values or principles that guide our relationships with each other (social justice) and with the Earth (conservation). A sample ethic of sustainability has been suggested by a partnership between the three major conservation groups in the world, the World Conservation Union (IUCN), the Worldwide Fund for Nature (WWF) and the United Nations Environment Programme (UNEP). The values in this ethic include:

Social Justice	Conservation
• Basic human needs	• Interdependence
• Intergenerational equity	• Biodiversity
• Human Rights	• Living Lightly
• Democracy	• Interspecies equity

Q4: Identify the three values in the suggested ethic of sustainability that are most significant to you.

1.

2.

3.

Q5: Explain why you chose these three.

Q6: List the actions you presently do (or could start doing) to improve the chance of achieving a sustainable future in your community - and the values that are guiding you in this.

Actions	Guiding values

Values in an Ethic of Sustainability

- Social Justice Values

Basic human needs

The needs of all individuals and societies should be met, within the constraints imposed by the biosphere; and all should have equal opportunity for improving their lot.

Intergenerational equity

Each generation should leave to the future a world that is at least as diverse and productive as the one it inherited. To this end, non-renewable resources should be used sparingly, renewable resources should be used sustainably, and waste should be minimised. The benefits of development should not be consumed now while leaving the costs to the future.



Human rights

All persons should have the fundamental freedoms of conscience and religion, expression, peaceful assembly, and association.

Democracy

All persons and communities should be empowered to exercise responsibility for their own lives and for life on Earth. Thus, they must have full access to education, political enfranchisement and sustaining livelihoods; and they should be able to participate effectively in the decisions that most affect them.

- *Conservation Values*

Interdependence

People are a part of natural systems and depend utterly on them. Thus, natural systems should be respected at all times. To respect natural systems means to approach nature with humility, care and compassion; to be frugal and efficient in resource use; to be guided by the best available knowledge, both traditional and scientific; and to help shape and support public policies that promote sustainability.

Biodiversity

Every life form warrants respect and preservation independently of its worth to people. People should preserve the complexity of ecosystems to ensure the survival of all species and the safeguarding of their habitats and, through this, contribute also to the material and spiritual quality of human life.

Living lightly

Everyone should take responsibility for their impact on natural systems. They should not interfere unduly with ecological processes, diminish biodiversity, or over-exploit renewable resources and the ecosystems that support them. They should use natural resources and the environment carefully and sustainability, and restore degraded ecosystems.

Interspecies equity

People should treat all creatures decently, and protect them from cruelty and avoidable suffering.

- *Values Clarification*

Values guide our decisions as to what is good, true and right. Thus, they depend as much on our feelings as on our thoughts.

Values clarification is a technique for encouraging peoples to relate their thoughts and their feelings and thus enrich their awareness of their own values.

This activity illustrates one values clarification strategy - a values grid.

- *A Values Grid*

A values grid helps peoples clarify the degree of commitment they feel to different issues.

Q8: To practise this values clarification technique make a list of three issues on questions that are of concern to you. Examples could be:

- Should the parkland close to the centre of the city be redeveloped to house landless people from nearby rural areas?
- Should girls receive equal educational opportunities to boys?
- To what extent should governments give financial incentives to overseas companies to encourage them to invest in local industries?



My three issues are:

1.

2.

3.

Q9: Now consider how strongly you are committed to resolving these issues. Read the following seven behaviours which reflect different degrees of commitment.

- A. I have chosen my position freely.
- B. I have considered alternatives before deciding on one.
- C. I have thought carefully about positive and negative consequences.
- D. I am proud of my viewpoint.
- E. I have publicly stated my viewpoint to other people.
- F. I have taken actions to support my viewpoint.
- G. I have spoken and acted consistently and repeatedly on my viewpoint.

Complete the following table by typing an asterisk mark (*) in every box which describes your views and actions (from A to G) on each of your three issues.

A B C D E F G

Issue 1

Issue 2

Issue 3

What does your profile show about your commitment to these three issues?



What does your profile reveal to you about your values?

Values Analysis

Where values clarification guides reflection on personal moral dilemmas, values analysis is commonly used with social issues that involve many people and viewpoints.

Thus, values analysis is a way of helping peoples examine other people's values as well as their own. It requires the use of logical thinking skills to analyse different viewpoints about an issue.

A case study of a proposal to develop a copper mine on a small island in the South Pacific is used to illustrate how values analysis enables peoples to review the positions held by various stakeholders in a controversial issue.

There are four steps in values analysis:

- Analysing the issue
- Assessing consequences for stakeholders
- Analysing stakeholders' perspectives
- Making a decision

Activity 3: Reflection

Values education aims to achieve two basic outcomes:

- Helping people to better understand the values that guide their own daily lives, and
- Contributing to changes in values held collectively by communities and personally by individuals.

Q14: Identify eight key values that you believe can contribute to achieving a sustainable future.

1.

2.

3.



4.

5.

6.

7.

8.

References

- Gilbert, R. and Hoeppe, B. (1996) The place of values, in R. Gilbert (ed) *Studying Society and Environment: A Handbook for Teachers*, Macmillan, Melbourne, pp. 59-79.
- Halstead, J. M. and Taylor, M. J. (eds) (1996) *Values in Education and Education in Values*, Falmer Press, London.
- IUCN, WWF and UNEP (1991) *Caring for the Earth*, WWF, IUCN, WWF and UNEP, Gland.
- Kelly, T.E. (1986) Discussing controversial issues: Four perspectives on the teacher's role, *Theory and Research in Social Education*, XIV(2), pp. 113-138.
- Noddings, N. (1984) *Caring: A Feminine Approach to Ethics and Moral Education*, University of California Press, Berkeley.
- Noddings, N. (1992) *The Challenge To Care In Schools: An Alternative Approach to Education*, Teachers College Press, Columbia University, New York.
- Pennock, M. and Bardwell, L. (1994) *Approaching Environmental Issues in the Classroom*, National Centre for Environmental Education and Training, University of Michigan.
- Reich, B and Pivovarov, V. (eds) (1994) *International Practical Guide on the Implementation of the Recommendation Concerning Education for International Understanding*, UNESCO, Paris.
- Stephenson, J. et al (eds) (1998) *Values in Education*, Routledge, London.
- Stradling, R., Noctor, M. and Baines, B. (1984) *Teaching Controversial Issues*, Edward Arnold, London.
- UNESCO (1998) *Learning to Live Together in Peace and Harmony*, UNESCO - APNIEVE Sourcebook for Teacher Education and Tertiary Zone Educators, UNESCO Principal Regional Office for Asia and the Pacific, Bangkok.
- UNESCO (2000) *The Practice of Citizenship*, Associated Schools Project, UNESCO, Paris.

Credits

This module was written for UNESCO by Bernard Cox, Margaret Calder and John Fien using materials and activities developed by Angelina Galang, Jose Camagun, Edith de la Cruz, Saras Reddy and Debbie Heck in *Learning for a Sustainable Environment* (UNESCO - ACIED).



