

Agenda 21 has the answers, as in paragraph 4.11 of Chapter 4, **Changing consumption patterns**, we find:

Consideration should also be given to the present concepts of economic growth and the need for new concepts of wealth and prosperity which allow higher standards of living through changed lifestyles and are less dependent on the Earth's finite resources and more in harmony with the Earth's carrying capacity. This should be reflected in the evolution of new systems of national accounts and other indicators of sustainable development.

In Chapter 5, **Demographic dynamics and sustainability**, paragraph 5.23 reads as follows: *An assessment should also be made of national population carrying capacity in the context of satisfaction of human needs and sustainable development, and special attention should be given to critical resources, such as water and land, and environmental factors, such as ecosystem health and biodiversity.*

When we skip to Chapter 17 of Agenda 21, **Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources**, we find in section 17.128 b.: *Develop techniques for determining and monitoring the carrying capacity of small islands under different development assumptions and resource constraints.*

So now that we have the scope of the problem defined, how do we quantify it?

Again, Agenda 21 in Chapter 40, **Information for decision-making**, provides the answer.

In section 40.4 we find: *Commonly used indicators such as the gross national product (GNP) and measurements of individual resource or pollution flows do not provide adequate indications of sustainability. Methods for assessing interactions between different sectoral environmental, demographic, social and developmental parameters are not sufficiently developed or applied. Indicators of sustainable development need to be developed to provide solid bases for decision-making at all levels and to contribute to a self-regulating sustainability of integrated environment and development systems.*

Such indicators are needed to increase focus on sustainable development and to assist decision-makers at all levels to adopt sound national sustainable development policies. Based on voluntary national testing and expert group consultations, a core set of 58 indicators and a total set of 134 indicators and methodology sheets are available for all countries to use.

In the Report of the Global Conference on the Sustainable

Development of Small Island Developing States, held in Bridgetown, Barbados, 25 April-6 May 1994, mention is made of a vulnerability index which uses a particular set of indicators in paragraph 113:

Small island developing States, in cooperation with national, regional and international organizations and research centers, should continue work on the development of vulnerability indices and other indicators that reflect the status of Small Island developing States and integrate ecological fragility and economic vulnerability.

Consideration should be given to how such an index, as well as relevant studies undertaken on small island developing States by other international institutions, might be used in addition to other statistical measures as quantitative indicators of fragility.

The Environmental Vulnerability Index (EVI) Project, developed by the South Pacific Applied Geoscience Commission (SOPAC), does just that.

Agenda 21 tin e contesta, ya cu den paragrafo 4.11 di Capitulo 4, **Cambio di patrono di consumo**, nos ta haña:

Consideracion tambe mester ser duna na conceptonan actual di desaroyo economico y e necesidad pa concepto nobo pa rikeza y prosperidad cual ta permiti standard mas halto di bida mediante estilo di bida cambia y cual ta menos dependiente di e recursonan finito di Tera y mas den harmonia cu e capacidad di carga di Tera. Esaki mester refleha den e evolucion di sistema nobo di cuenta nacional y otro indicador di desaroyo sostenibel.

Den Capitulo 5, **Dinamica demografico y sostenibilidad**, paragrafo 5.23 ta bisa lo siguiente:

Un asesoria mester ser haci tambe di e capacidad di carga pa e poblacion nacional den e contexto di satisfaccion di necesidad humano y desaroyo sostenibel, y atencion especial mester ser duna na recurso critico, manera awa dushi y tereno, y factornan ambiental, manera salud di ecosistema y biodiversidad.

Ora nos salta pa Capitulo 17 di Agenda 21, **Proteccion di oceano, tur tipo di laman, incluyendo esnan encera y semi-encera, y areanan costal y e proteccion, uso racional y desaroyo di nan recursonan natural viviente**, nos ta lesa den seccion 17.128 b.:

Desaroya technica pa determinacion y monitoreo di capacidad di carga di islanan chikito bao suposicion di diferente desaroyo y

di Desaroyo Sostenibel di Estadonan Insular Chikito den Desaroyo teni na Bridgetown, Barbados, 25 april-6 mei 1994, mencion ta ser haci den paragrafo 113 di un index pa vulnerabilidad (vulnerability index) cual ta usa un coleccion especial di indicador:

Estadonan Insular Chikito den Desaroyo, den cooperacion cu organisacionan nacional, regional y internacional y centro di investigacion, lo mester continua traha riba e desaroyo di indexnan di vulnerabilidad y otro indicador cu ta refleha e status di Estadonan Insular Chikito den Desaroyo y cual ta integra fragilidad ecologico y vulnerabilidad economico. Consideracion mester ser duna na con un tal index, ademas di estudionan relevante haci pa otro institucion internacional tocante Estadonan Insular Chikito den Desaroyo, por ser usa hunto cu otro medidanan estadistico como indicador cuantitativo di fragilidad.

E proyecto Environmental Vulnerability Index (EVI), desaroya pa e South Pacific Applied Geoscience Commission (SOPAC), ta haci tal.

Y awor cu nos a defini e problema, defini e campo di investigacion y tin acceso na un coleccion disponibel di instrumento con nos ta haci pa cuminsa compila e cifranan?

E Oficina di Estadistica di Aruba ta parece di ta riba e bon caminda, ya cu nan lo bai haci un sondeo cu yama Community Needs Assessment (Sondeo di Necesidadnan Comunitario), cual te na un cierto nivel lo cumpli cu e requisitonan delinea den e paragrafo 5.23 di Agenda 21 menciona anteriormente. Pero e metodologia usa ta crudo y no ta refleha e metodologian facilmente accesibel di indicadornan di desaroyo sostenibel of un index di vulnerabilidad, cual ta disponibel na varios agencia di Naciones Uni manera e Comision pa Desaroyo Sostenibel di Naciones Uni (CSD), e Division di Estadistica di Naciones Uni y numeroso otro agencia regional y di Naciones Uni.

Useful links	
UN Statistics Division	http://www.un.org/issues/m-stat.asp
UN Department of Economic and Social Affairs (ESA)/ Division for Sustainable Development	http://www.un.org/esa/sustdev/
Agenda 21	http://www.un.org/esa/sustdev/documents/agenda21/index.htm
Small Island Developing States	http://www.un.org/esa/sustdev/sids/sids.htm
Indicators for Sustainable Development	http://www.un.org/esa/sustdev/natlinfo/indicators.htm
Environmental Vulnerability Index (SOPAC)	http://cobalt.sopac.org.fj/Projects/Evi/Index.htm

So now that we have defined the issue, determined the scope and found a readily usable set of tools how do we go about filling in the numbers?

The Aruban Central Bureau of Statistics seems to be on the right track, as they are to do a Community Needs Assessment, which would to some extent meet with the requirements outlined in paragraph 5.23 of Agenda 21 mentioned earlier.

But the methodology used is somewhat crude and does not reflect readily available methodology on indicators of sustainable development or a vulnerability index, which are available from various UN sources such as the UN Commission on Sustainable Development (CSD), the UN Statistics Division and numerous other UN and regional agencies.

We must use generally accepted methodology, because we need to be benchmarked against generally accepted standards. It is time to start number crunching and Rainbow Warriors International feels that a series of lectures, workshops and seminars introducing UN developed methodology and tools in Aruba would be highly appropriate and timely now, before we start preparing to compile useless statistics that will not contribute to sustainable development focused decision-making and planning in Aruba.

restriccion pa recursonan.

Y awor cu nos a defini e campo pa investigacion di e problema, con nos ta cuantifica esaki?

Atrobe, Agenda 21 den Capitulo 40, **Informacion pa tomo di decision**, ta provee e contesta.

Den seccion 40.4 nos ta haña: *Indicadornan comunmente usa manera producto nacional bruto (GNP) y medida di recurso individual of fluho di polucion no ta provee indicacion adecuado di sostenibilidad. Metodonan pa evalua interaccion entre diferente parametro sectorial, ambiental, demografico, social y di desaroyo no ta suficientemente desaroya of aplica. Indicadornan di desaroyo sostenibel mester ser desaroya pa provee basis solido pa tomo di decision na tur nivel y na contribui na un sostenibilidad autoregulatorio di e sistemanan integra usa pa medio ambiente y desaroyo.*

Tal indicadornan ta requiri pa aumenta e enfoque riba desaroyo sostenibel y pa asisti esnan responsabel pa tuma decision na tur nivel pa adopta maneho acerta, adecua nacional pa desaroyo sostenibel.

Basa riba pruebanaan nacional voluntario haci y den consultacion cu gruponan di experto, un coleccion nucleo di 58 indicador y un coleccion total di 134 indicador y methodology sheets ta disponibel pa tur pais na mundo pa usa. Den e raport di e Conferencia Global

Nos mester utiliza metodologia acepta generalmente, pasobra e cifranan cu nos ta compila mester por ser usa den un forma comparativo den modelonan calibra pa midi diferencianan.

A bira ora pa cuminsa saca som y Rainbow Warriors International ta di opinion cu un serie di lectura, workshop y seminario introduciendo metodologia y instrumentonan desaroya pa agencianan di Naciones Uni na Aruba lo ta altamente apropiada y na ora awor, promer cu nos cuminsa prepara pa compila estadisticanan cu no ta util pa contribui na planificacion y tomo di decision cu un enfoque riba desaroyo sostenibel na Aruba.

PLAN D2

If you have built castles in the air,
your work need not be lost; that is
where they should be. Now put
the foundations under them.

Henri David Thoreau