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The 10-year strategic plan and framework to enhance the implementation of the Convention – Committee on Science and Technology

Consideration of advice on how best to measure progress on strategic objectives 1, 2 and 3 of the 10-year strategic plan and framework to enhance the implementation of the Convention

**The 10-year strategic plan and framework to enhance the implementation
of the Convention – Committee on Science and Technology**

Note by the Secretariat

Addendum

**Advice on how best to measure progress on strategic
objectives 1, 2 and 3 of the strategic plan**

Summary

The purpose of this framework document to provide information on the stages of the process of optimum measurement of strategic objectives 1, 2 and 3 for the purpose of drafting guidelines for the reports produced by the Committee for Review of the Implementation of the Convention (CRIC), with a view to implementing a 10-year strategic plan and framework (Decision 3/COP/.8). This strategy must facilitate the presentation of the comparable scientific data which are essential inputs at the national, regional and international levels in the context of the United Nations Convention to Combat Desertification.

In implementing the strategy (and its indicators), a federative and harmonized data collection process may be used, in conjunction with action at the international, regional and national levels, for this would constitute a considerable advance over a process addressing only the national situations of the affected countries and the developed countries and the regional and subregional situations.

The use of strategic indicators is a part of a decision-making and institutional process which should both promote the identification, mobilization and incorporation of new actors at the international, regional and national levels and help to harmonize the interpretation of the data and the monitoring methods used at these different levels.

This framework document presents some material to fuel the discussions on the proposed studies and the consequent recommendations. It is absolutely essential for the Parties to achieve a consensus on the indicators.

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. INTRODUCTION	1–10	4
II. PREAMBLE	11–22	6
III. GLOBAL MONITORING OF THE 10-YEAR PLAN.....	23–40	8
A. Strategic objective 1: To improve the living conditions of the affected populations	26–29	9
B. Strategic objective 2: To improve the status of affected ecosystems.....	30–34	10
C. Strategic objective 3: To generate global benefits through effective implementation of the Convention	35–36	11
D. Conclusions	37–40	11
IV. SUPPORTING NATIONAL MONITORING BY STRENGTHENING EXISTING ARRANGEMENTS	41–59	12
A. Need for national observation systems to monitor the 10-year plan.....	41–43	12
B. Strengthening existing arrangements for national and local monitoring	44–56	13
C. Added value of scientific and technical coordination at the regional level	57–59	15
V. CONCLUSIONS AND RECOMMENDATIONS ON THE STAGES OF THE PROCESS	60–81	16
A. Global level	60–66	16
B. Regional level	67–70	17
C. National level	71–80	18
D. General conclusion.....	81	20

ANNEX

Example and inputs of the United Nations Framework Convention on Climate Change.....	21
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I. Introduction

1. The purpose of the 10-year strategic plan and framework to enhance the implementation of the United Nations Convention to Combat Desertification (the Convention), adopted at the eighth session of the Conference of the Parties (Madrid, 2007) and referred to as “the 10-year plan” throughout the present document, is to establish a global partnership to halt and prevent desertification and land degradation and to mitigate the effects of drought in the affected areas, in order to help to reduce poverty and foster lasting respect for the environment.

2. The 10-year plan defines and proposes priorities for the implementation of the Convention, priorities expressed in particular in the form of four strategic objectives:

- Objective 1: To improve the living conditions of affected populations
- Objective 2: To improve the condition of affected ecosystems
- Objective 3: To generate global benefits through effective implementation of the Convention
- Objective 4: To mobilize resources to support implementation of the Convention through building effective partnerships between national and international actors

3. The 10-year plan concerns all the actors at the various levels and calls for sustained implementation on their part: affected and non-affected country Parties, international organizations and scientific bodies, national Governments and scientific bodies, regional institutions, and all kinds of civil society actors and organizations.

4. It includes the decisions already adopted, the work accomplished and the procedures established for the implementation and the monitoring/assessment of the national, subregional and regional action programmes. Embracing the achievements of the Convention, it is designed to strengthen the commitments of the existing partners and the integration of emerging actors.

5. Monitoring the objectives of the 10-year plan entails:

- (a) Monitoring changes in the indicators proposed in the 10-year plan for the international, regional, national and local levels;
- (b) Identifying the actors to be involved in this monitoring;
- (c) Determining relevant measures for the attainment of the objectives;
- (d) Identifying the stakeholders responsible for implementing the measures and the partners who will contribute thereto;
- (e) Evaluating the impact of the measures.

6. The 10-year plan proposes core indicators for each of the stated objectives:
- (a) Strategic objective 1:
 - S-1: Decrease in numbers of people negatively impacted by the processes of desertification/land degradation and drought.
 - S-2: Increase in the proportion of households living above the poverty line in affected areas.
 - S-3: Reduction in the proportion of the population below the minimum level of dietary energy consumption in affected areas.
 - (b) Strategic objective 2:
 - S-4: Reduction in the total area affected by desertification/land degradation and drought.
 - S-5: Increase in gross primary activity in affected areas.
 - (c) Strategic objective 3:
 - S-6: Increase in carbon stocks (soil and plant biomass) in affected areas.
 - S-7: Areas of forest, agricultural and aquaculture ecosystems under sustainable management.
 - (d) Strategic objective 4:
 - S-8: Increase in the level and diversity of available funding for combating desertification/land degradation and mitigating the effects of drought.
 - S-9: Development of policies and measures addressing desertification/land degradation and mitigation of the effects of drought.

7. The present framework document presents some considerations on how best to measure objectives 1, 2 and 3 of the Convention's 10-year strategic plan and framework. The 10-year plan defines and proposes priorities for the implementation of the Convention, expressed in the first three strategic objectives and the seven core indicators attached to those objectives. These indicators are set out in the strategy adopted at the eighth session of the Conference of the Parties in September 2007 in Madrid.

8. This framework document offers an approach and some advice on the methodology and procedures to be put in place. It seeks to raise pertinent issues for the Committee on Science and Technology (CST) to discuss and evaluate, with a view to formulating under the Convention a method for monitoring the implementation of the 10-year plan.

9. Part II of the framework document explains the approach taken. Parts III and IV propose some considerations to be taken into account in establishing international, national and regional

monitoring arrangements. The regional or intermediate level should be used both to harmonize and to interpret the inputs from the other two levels and to measure and analyse specific regional trends and developments. It is absolutely essential for the Parties to reach a consensus on the indicators.

10. This document was produced by the Sahara and Sahel Observatory (OSS) and edited by the Convention secretariat.

II. Preamble

11. Ever since the adoption of the Convention efforts have been made to establish adequate administrative arrangements for its implementation by the national coordination bodies and focal points. The national action plans to combat desertification (NAPs) and the regional and subregional action plans (SRAPs and RAPs) have helped to:

(a) Facilitate the mobilization of the stakeholders in the fight against desertification, in particular centralized and decentralized State agencies, civil society, scientific partners, regional and subregional institutions, and international cooperation partners;

(b) Describe the phenomena of desertification by country, subregion and region;

(c) Determine the priority actions and strategies to combat desertification to be implemented at these various levels;

(d) Identify the institutions and stakeholders involved in the implementation of these actions and strategies;

(e) Describe the subregional and regional dimensions of desertification: management of transhumance, migration, transboundary waters, etc.

12. The reports requested from the Parties to the Convention have made it possible to monitor its implementation, on the basis inter alia of the NAP, SRAP and RAP indicators, the adoption of a participatory approach, the creation of non-governmental organizations (NGOs), and indeed the amount of funding allocated by States. Several sets of indicators were proposed and accepted by the Parties with regard to the implementation process, the monitoring of the phenomenon and the evaluation of the anti-desertification measures carried out.

13. NAP monitoring and evaluation has gradually focused on measurement of the impact of the Convention's implementation on the phenomena of desertification. This question is of central importance in the 10-year plan. It relates directly to the measurement of the first three strategic objectives. And it implies more systematic use of the data resulting from the research work and the various expert studies on the projects to combat desertification.

14. This also implies that State agencies, especially decentralized ones in the developing countries, should possess the logistical resources and the scientific and technical skills to obtain

the relevant scientific information and to pass it on. Major regional differences in this regard have been found in affected countries¹.

15. It further implies that the format of national reports should be able to handle data from a range of actors yet to be identified, but including scientific data. A country profile sheet adjusted to take account of the strategic objectives of the 10-year plan might consist of two parts: one concerning implementation of the Convention and the other concerning measurement of the impact of the exercise (on desertification/land degradation), for which purpose the indicators for measuring objectives 1, 2 and 3 would be used.

16. "Indicator" is generally taken to mean a parameter or a value calculated on the basis of set of parameters which provides information about a phenomenon or its state². An indicator may thus be not only a quantitative measurement but also a qualitative description³. An indicator's worth depends inter alia on:

(a) Reduction to a minimum of the number of measurements and parameters normally needed for an accurate description of a situation;

(b) A simple procedure for communicating the findings to the users⁴.

17. However, it is important in this context to distinguish between the indicator, its scope, its scientific and technical significance, and possibly the factors used in its calculation, from its actual use, which is subject to several constraints, such as for example the availability of data and access to and transmission of data. The question of the use of indicators brings into play decision-making processes which depend on human and financial capacity and on multisectoral, multidisciplinary and sometimes transnational data-transmission procedures.

18. An indicator is therefore designed with a given objective in mind and for a given group of users. It is a synthesis of a number of situations and activities and their development and it acts as a guide to decision-making. Accordingly, indicators S-1 to S-7 proposed in the 10-year plan should be understood as big categories of indicators which are proposed for the global level but may nevertheless be distributed in a variety of ways among the global, regional, national and local levels and for which the methods of calculation or approximation remain to be determined. Such an exercise implies recourse to scientific research works and the establishment of arrangements for dialogue between scientists and decision-makers.

19. It is also interesting to note, for example, that the second indicator under objective 3 (S-7: Areas of forest, agricultural and aquaculture ecosystems under sustainable management) can draw its inputs only from information provided by countries.

¹ UNCCD: ICCD/COP(8)/CST/2/Add.1, 11 July 2007, "Report of the fifth meeting of the Group of Experts of the Committee on Science and Technology. Note by the secretariat. Addendum. Benchmarks and indicators for monitoring and assessment of desertification".

² OECD Core Set, 1994. Environmental indicators, Paris.

³ OSS/CILSS, 2001. Impact and implementation indicators of the programmes of action to combat desertification. Concepts and experiences in Africa, Asia and Latin America. Monitoring and evaluation report for COP5. 33 pp.

⁴ The SMART standard (Specific, Measurable, Attainable, Realistic and Time-bound (and affordable)) is often proposed as a yardstick for assessing an indicator's worth.

20. Two approaches are therefore examined below for the international and national levels and then for the regional level, which in this context also constitutes a level of coordination between the first two levels: firstly, practical proposals on indicators which may be used to feed the indicators proposed in the 10-year plan; secondly, suggestions concerning the actors to be involved and on the ways in which they may contribute to the production of reports.

21. For the international level, this document takes a pragmatic approach and proposes on a preliminary basis a series of references to the indicators available at this level of relevance for indicators S-1 to S-7 and to the institutions producing them. For the national level, the document proposes practical tools both for reinforcing what already exists, in particular in the context of the monitoring of NAPs and the operational objectives, and for aligning what already exists with the strategic objectives of the 10-year plan. The value added at the regional level in the production of scientific and technical indicators is adapted for the international and national levels and then synthesized.

22. By adopting global indicators the 10-year plan is suggesting that information on the impact of its implementation should also be furnished at the international and regional levels. International and regional actors and organizations might be sought out and involved in the production of the reports on the implementation of the 10-year plan. Accordingly, monitoring the implementation of the plan and its strategic objectives entails seeking out new actors at the different levels. These actors and their contribution to implementation reporting must be identified.

III. Global monitoring of the 10-year plan

23. Globally calculated indicators can provide data for monitoring the 10-year plan at the international level, but they may also provide data on regions and individual countries and thus constitute the basis for regular default monitoring (see annex). It is therefore necessary: first, to identify the indicators of the 10-year plan which are susceptible of global monitoring by means of a rapid study of the existing indicators and methods; second, to identify and mobilize institutions and groups of scientists which can produce these indicators in order to reinforce the CST activities related to the Convention.

24. The next part proposes, in the light of a non-exhaustive list of references, ways of responding at the information levels required by the indicators of the 10-year plan. It refers without going into details to a number of methods already available and used by international and regional institutions which seem relevant to a global assessment of the indicators of the 10-year plan⁵. The methodological significance of a “global” indicator or a “global” output or scale of an indicator implies the use of models for the calculation of the indicators. These models help to compensate for the lack of regular data and to determine the trends over time. In schematic terms, the notion of “global” is contrasted here with the notion of “specific” and in particular with the empirical approach of making an inventory of and aggregating the primary data collected in order to obtain a larger-scale output.

⁵ The paper “Land decline in land-rich Africa, a creeping disaster in the making” (Vlek, Quang Bao, Tamene, ZEF-CGIAR, 2008), for example, presents a set of indicators relevant to the monitoring of the 10-year plan.

25. It is also important to establish a linkage with similar related initiatives, such as for example the monitoring and evaluation system of the Global Environment Fund (GEF) and the system of indicators for assessing the impact of GEF sustainable land management projects.

A. Strategic objective 1: To improve the living conditions of affected populations

Strategic objective 1, indicator S-1: Decrease in numbers of people negatively impacted by desertification/land degradation and drought

26. In practice, the monitoring of the numbers of persons affected, calculated at almost two billion people worldwide or one third of humankind, is a difficult exercise in many developing countries and regions. There are global methods of estimating the population density of the affected regions. But it will be necessary to describe in detail the methodologies used in order to determine whether the outputs constitute a reliable database on a global scale and are comparable with the data provided by countries.

27. It would be possible, for example, to use the work done on “population and development” in the United Nations system, which quantifies the rural populations of countries (as the difference between the total population and the urban population) or the work done by the Centre for International Earth Science Information Network (CIESIN) of Columbia University on the calculation of population density by means of remote sensing.

Strategic objective 1, indicator S-2: Increase in the proportion of households living above the poverty line in affected areas

28. The assessment of rural poverty has been addressed in many international methodological works which present interesting results, including for the regional and country levels. It will be necessary to review the methodologies used and their validation if available assessments are to be employed as a reference framework for determining future developments. This approach would save time and resources. For example, the web site on rural poverty maintained by the International Fund for Agricultural Development (IFAD) and the World Bank presents a series of data and methods for assessing rural poverty, in particular on a regional scale.

Strategic objective 1, indicator S-3: Reduction in the proportion of the population below the minimum level of dietary energy consumption in affected areas

29. An inventory and evaluation of the various existing systems of relevance to this objective would provide the necessary basis for initiating discussions on the method(s) to be adopted at the regional and international levels. There are already regional early-warning systems for drought which quantify the food deficits before and after the event. In West Africa, for example, there is the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS), which has developed vulnerability-assessment methodologies in collaboration with international cooperation partners.

B. Strategic objective 2: To improve the condition of affected ecosystems

Strategic objective 2, indicator S-4: Reduction in the total area affected by desertification/land degradation and drought

30. The reduction in the total area affected by land degradation and desertification can be assessed on its global and regional scales by methods such as remote sensing, using for example the normalized difference vegetation index (NDVI) or soil erosion maps. Such indicators have been debated since the 1970s, but no consensus on their use for monitoring desertification has so far been reached under the Convention. However, there is a need to choose a method for regular measurement of this indicator.

31. A number of organizations and research bodies, working in partnership, introduced measures in the past to monitor soil degradation and vegetation cover, such as the Food and Agriculture Organization of the United Nations (FAO) and the Global Assessment of Soil Degradation (GLASOD) in the 1980s, or to make syntheses of existing works, such as, more recently, the Millennium Ecosystem Assessment (MEA).

32. The outcomes already to hand and the indicators already calculated may constitute the reference points for monitoring this objective of the 10-year plan at the global level. The possibility of transferring or adapting these methods to the country level will have to be studied, so that countries will be able to produce and develop this indicator in greater detail at the national level.

33. For example, there are methods of distinguishing between the impacts of rainfall volume and demographic pressure on the basis of data provided by observation from space. There have been international initiatives for numerous scientific works on the monitoring of degraded areas, such as for instance the Dryland Degradation Assessment Project (LADA), which is testing and developing its tools on several continents, or the Desertification Survey (Dsurvey). In addition, modelling of the risks of soil erosion make it possible to picture and anticipate developments in degraded areas. Terrestrial observation projects, such as the FAO Global Terrestrial Observation System (GTOS), the Global land cover 2000 project (GLC2000) of the Joint Research Centre (JRC) and the Institute for Environment and Sustainability (IES), and the European Commission data on vegetation cover and land use, already provide useful information for monitoring indicators such as those of the 10-year plan. The work of the European Commission (JRC) and of the United States Department of Agriculture (Natural Resources Conservation Service) on hydric soil erosion can also serve as the basis for discussions on the identification and selection of the right indicators to feed the indicators of the 10-year plan. But there are many others which have yet to be identified, together with other writers on this topic.

Strategic objective 2, indicator S-5: Increase in gross primary productivity in affected areas

34. As in the case of indicator S-4, international and national assessments could be made on the basis of NDVI statistics. However, it is an essential precondition to achieve consensus on the method and the key institutions for their production.

C. Strategic objective 3: To generate global benefits through effective implementation of the Convention

Strategic objective 3, indicator S-6: Increase in carbon stocks (soil and plant biomass) in affected areas

35. The United Nations Framework Convention on Climate Change (UNFCCC) and a number of the actors involved have undertaken methodological work on this subject, in particular under the Clean Development Mechanism (CDM) and more recently in connection with Reducing Emissions Caused by Deforestation and Degradation (REDD). It would be useful to set up joint study and working groups for the two conventions to determine a method which could be used in both contexts.

Strategic objective 3, indicator S-7: Areas of forest, agricultural and aquaculture ecosystems under sustainable management

36. This indicator can be compiled only on a national scale, on the basis of information from projects on the sustainable management of the various types of ecosystem carried out in individual countries. It also relates to the implementation of measures to decentralize the management of natural resources. The purpose of such decentralization is to facilitate sustainable resource management by involving local authorities and communities in selecting and organizing the management modes.

D. Conclusions

1. Preconditions for the global monitoring of the 10-year plan

37. The introduction of global scientific and technical default monitoring will require:

(a) The selection and validation, for calculating each indicator of the 10-year plan, of one or more methodologies producing comparable outcomes on an international, regional or national basis. A pragmatic approach is recommended in order to take advantage of the outcomes already produced and to provide a preliminary framework of reference. The data obtained should be available and presented on international, regional and national scales;

(b) Networking among the scientific and technical institutions producing the data: the most suitable organizations for producing these data at lowest cost have yet to be identified, but might include international technical agencies of the United Nations system, such as FAO, UNEP, UNDP and UNESCO, the Organization for Economic Cooperation and Development (OECD), international, regional and national scientific research bodies, and international development institutions such as GEF, the World Bank and IFAD.

2. Selection of institutions

38. A selection process should be put in place to identify the actors who will produce the data and to organize networking among them. This process might perhaps include a number of successive stages: an appeal for proposals for the formation of a consortium to provide the data, the establishment of a working group (discussion of the consortium with the CST office, CST itself and a number of experts and representatives of the regions), a final submission to CRIC,

and the introduction of arrangements for networking among the institutions of the consortium to produce the data. Selected institutions from the public sector should be persuaded to provide this service free of charge as their contribution to the implementation of the Convention. The performance and suitability of this network should be assessed at regular intervals.

3. Scientific and technical role of the regions

39. The regions will have an important role to play in analyzing, interpreting and assessing the global indicators. They might be involved in the selection of the methodologies for each indicator and, in the case of some of them, in their production. They might also be responsible for the proper coordination of this work with the measurement of the strategic objectives to be produced by countries.

Limits to global assessment

40. The global indicators described here are not capable of providing countries with sufficient information to establish their strategies for combating desertification. They do not allow fine analysis of the ongoing processes of degradation or of the best conditions for regeneration. However, they do allow default measurements which facilitate the work under the Convention, enrich the debates and contribute to the regional monitoring arrangements to be put in place, as well as being of use to countries by default.

IV. Supporting national monitoring by strengthening existing arrangements

A. Need for national observation systems to monitor the 10-year plan

Monitoring needed at the national level

41. The reports on the implementation of the Convention are prepared by country Parties under a procedure established by decisions of the Conference of the Parties. For the purposes of monitoring the 10-year plan, the provision of national indicators, i.e. by countries, is essential. It is in fact at this level that rural development policies and policies to combat desertification are formulated and put in place.

42. Accordingly, while the establishment of a scientific network to conduct global monitoring of the 10-year plan is a useful and necessary measure, it is not a sufficient measure for attaining the objectives set, for on the one hand the network will operate primarily at the international and regional levels and accord countries no role or any means of participating in the monitoring work, while on the other hand it will not allow fine analysis of the desertification and degradation situation in individual countries. Countries must therefore continue to build up their capacity to monitor the implementation of the 10-year plan and the Convention.

43. Monitoring the implementation of the 10-year plan at the country level means continuing the efforts already under way to produce and make available the multisectoral data needed for monitoring desertification. Many initiatives have already been established with regard to the choice and monitoring of indicators. The measurement of operational objectives constitutes a frame of reference which should be used when discussing the measurement of the strategic objectives. It is important for these two processes to be coordinated and to cross-fertilize each other.

B. Strengthening existing arrangements for national and local monitoring

1. Provision of the indicators of the 10-year plan

44. For the purposes of comparison of country data, how should the Convention support the methodological efforts to harmonize at the regional level the national and local methods of monitoring desertification/land degradation? It can advocate the use of accurate methods of calculation or the explanation of these methods in the reports furnishing information on and presenting the indicators of the implementation of the 10-year plan. This approach has already been used for monitoring the operational objectives of the Convention. It could be re-used and adapted for monitoring the strategic objectives.

45. As proposed in the preamble, the country profile used to measure the operational objectives might be revised and adapted to the new objectives. It might, for example, have two separate parts – one dealing with the measurement of the operational objectives, the other with the measurement of the strategic objectives. Where the revision of the country profile is concerned, it should be remembered that the actors identified as suppliers of data and strategic indicators may be different from the actors called on to deal with the operational objectives.

46. Table 1 presents an example of a tool for organizing and supporting the production of strategic indicators in the monitoring of the 10-year plan.

Table 1. Methodological tool 1: data needed for calculating the indicators of the 10-year plan

	Data needed	Method(s) of calculation	Indicator value	Reference value*
Strategic objective 1				
Indicator S-1				
Indicator S-2				
Strategic objective 2				
...				

* For example, the indicator calculated on a global scale.

47. An explanation of the methodologies used to produce national indicators for monitoring the 10-year plan at the national level will make it possible to coordinate these outcomes with the outcomes of the global assessments. The main collection tools are the adapted country profile and the survey sheets and national statistics used in the calculation of the indicators.

2. Mapping of sites benefiting from anti-desertification measures

48. Maps produced by national agencies showing the projects for combating desertification/land degradation, their implementation periods, the chief measures carried out, and the beneficiary populations and communities would constitute a fundamental tool for monitoring the implementation of the 10-year plan. This information can be presented thematically, perhaps using the following classification:

- Simple reforestation;

- Agro-forestry using traditional knowledge;
- Development of natural forests and conservation of vegetation cover;
- Water and soil conservation;
- Agro-ecology;
- Income-generating activities;
- Rural micro-credit;
- Innovations yet to be identified.

49. Expert groups backed by the Convention might evaluate some of these activities on an ad hoc basis, using the indicators adopted for the 10-year plan and the methodologies advocated by the Convention or duly explained elsewhere. Such evaluations might also be based on experience of the local monitoring of desertification.

50. Lastly, countries could usefully supplement these national indicators with data produced by their local, more detailed and multidimensional, monitoring work, in order to improve the understanding of the processes of desertification and land degradation.

Usefulness of local monitoring networks

51. With regard to local observatories, the local monitoring of flora and vegetation by means of the regular production of soil-use maps reveals the evolution of ecosystems and the type and degree of their degradation or regeneration. This work can be combined with monitoring of the capture of carbon in soils and vegetation. Socio-economic monitoring measures changes in the living standards of local populations and the status of their food vulnerability. And institutional monitoring supplies information on the current natural resource management defined and implemented under decentralization measures within the observatory areas. All of the indicators (S-1 to S-7) can thus be calculated locally and the outcomes interpreted by means of an analytical model, not just by means of a merely descriptive model.

52. In the circum-Saharan region of Africa, for example, the work of the Long-term Ecological Monitoring Observatories Network (ROSELT), the monitoring and assessment arrangements, and the establishment of national environmental monitoring systems are measures which need to be evaluated and strengthened. These programmes based on the reinforcement of the capacity of national or decentralized agencies are designed to produce useful indicators for measuring the impact of the action taken to combat desertification/land degradation and to elucidate the mechanisms of these processes. The methods used are validated by committees of international experts, described in detail and easily accessible.

3. Institutional architecture

53. For the purposes of organizing the monitoring of the 10-year plan, use must be made of the national institutional architecture already in place, such as ministries of the environment and national coordination bodies responsible for coordinating the agencies and the scientific partners and producing national and local monitoring indicators, which also have a role in terms of multisectoral integration.

54. It is essential to verify the quality of the data and information produced. Table 2 presents an example of a tool for organizing the provision of indicators at the national level. Any institutional innovation likely to facilitate the collection of the data needed for reporting under the Convention is to be encouraged.

Table 2. Methodological tool 2: means of producing monitoring indicators

	Collection tools	Data management agency	Periodicity of production	Date of latest quality check*
Strategic objective 1				
Indicator S-1				
Indicator S-2				
Strategic objective 2				
Strategic objective 3				
...				

* Specifying the source of the check.

55. Generally speaking, national and regional scientific institutions have improved their understanding of the relevant research areas, giving emphasis to:

- (a) Environmental monitoring observatories;
- (b) Combating drought by developing biotechnology;
- (c) Developing remote sensing and improving thematic mapping;
- (d) Building capacity through training;
- (e) Expanding the search for innovative techniques.

56. The processes of democratization and decentralization under way in most of the countries affected by desertification are fostering more responsible attitudes on the part of local communities and users. The needs of local populations have been taken into account and incorporated in the strategies for natural resource management, giving rise to new initiatives and actions. The practice of growing off-season crops by means of small-scale irrigation is a commonly found component of food security and adaptation to climate variations.

C. Added value of scientific and technical coordination at the regional level

57. Regional scientific and technical coordination of national monitoring at the local level in the different countries is recommended. It ensures the comparability of the information supplied by countries and can guarantee the production of a minimum body of data common to all the countries in a region. The maps describing the various anti-desertification projects currently being carried out could usefully be synthesized at the regional level, as could the reports produced by the region's countries.

58. The role of the regions in this context might consist of contributing to the determination of the methodologies recommended for the national level, organizing national and regional discussions, and building up capacities. They might also contribute to the expert studies on

assessment of the impact of the action taken by countries to combat desertification/land degradation in terms of the indicators of the 10-year plan, as well as participating in the quality-control of the data produced.

59. The introduction of arrangements for monitoring and assessing the impact of anti-desertification measures could perhaps be organized in the various countries of a region and synthesized at the regional level. This is a principle used by the Great Green Wall for the Sahara project coordinated by the African Union and the Community of Sahel-Saharan States (CEN-SAD).

V. Conclusions and recommendations on the stages of the process

A. Global level

60. A global scientific and technical evaluation implies that the most suitable methods for calculating the first six indicators of the 10-year plan have already been identified, explained and validated. This exercise should be conducted in collaboration with the CST office and the Convention secretariat and validated by CST and CRIC. Global scientific and technical evaluation concerns the international and regional levels first of all. Countries should be able to draw as much advantage as possible from the indicators produced, in order to keep “default” monitoring to a minimum at the country level.

61. A network of institutions yet to be identified (international and regional organizations, research bodies, development agencies) should furnish to the Convention regular data on the indicators of the 10-year plan. For the purposes of this global evaluation, what already exists in terms of methodologies and indicators should be used as reference points. Indicators S-1 to S-6, which express variations, might perhaps be produced every two years, with at least three time frames used for calculation of a variation: short-term (one year, for example), medium term (four years) and long term (seven or more years).

62. The scientific and technical skills available in the regions might be used in the selection of methods, in the interpretation and analysis of certain global outcomes, and in the calculation and production of certain indicators. They could be used to support on a regular basis, perhaps every four years, the specifically regional interpretation of the findings of the global evaluations. Discussion of the monitoring of the 10-year plan could thus take place at the regional level.

Recommendations for the global level

63. It is recommended that a more detailed study should be made for the global level on “how best to measure strategic objectives 1 and 2 of the Convention”. It might take the form of two specific studies, one by major type of objective (socio-economic and environmental), in order to see where things stand in terms of the scientific and technical aspects and the implementation of the proposed indicators. This study would help to establish the availability of indicators and methods and international and regional institutions, organizations, and research bodies and networks which produce or are capable of producing these indicators on a regular basis. It would explain the main methods used for calculating these global indicators and the quality and usefulness of their findings for all three levels – international, regional and national.

64. For the purposes of measuring strategic objective 3, the recommendation is to initiate a second specific study under the auspices of the working groups whose deliberations relate to all three of the Rio Conference conventions. The methodologies already validated and the production of indicators already established for monitoring the United Nations Framework Convention on Climate Change and the United Nations Convention on Biological Diversity could be of direct use in monitoring the 10-year plan. In the case of other common indicators not yet produced, such a study and the associated exchanges could lead to economies of scale of general benefit for the application of the three Rio conventions.

65. Where the 10-year plan is concerned, synergies may be found in particular in the methods of assessing carbon stocks in soil and vegetation and the linkages between desertification and biodiversity in ecosystem monitoring. The current work on adaptation to climate change, especially the forthcoming definition of indicators for monitoring such adaptation, will produce indicators which cut across the three conventions, with particular relevance to rural areas.

66. The recently emerged notion of “services rendered by ecosystems” also offers common ground for joint work under the three conventions. The longer-term objective would be to establish relevant indicators which could be used at the different levels in ways suited to the capacity of the actors responsible for their production. This is a question of developing joint operational research programmes under the three conventions.

B. Regional level

67. Regional scientific and technical institutions have an important role to play in the measurement of the objectives of the 10-year plan. They are involved in global assessments, as pointed out earlier: provision of certain indicators; and interpretation at the regional level of the outcomes of global assessments in the light of their specific knowledge. Their involvement would facilitate regional reporting on the monitoring of the 10-year plan and improve the existing regional strategies to combat desertification/land degradation.

68. They are also involved in local assessments through their regional coordination of the methodological and technical aspects: capacity-building and dissemination and use of monitoring methods which have been adapted and harmonized to suit countries' needs; thematic regional syntheses; and indicators of the local data produced by countries. They can also produce regional syntheses of the outcomes of the national mapping of measures to combat desertification and take part in the thematic assessments of the impact of these measures in the context of monitoring the 10-year plan.

Recommendations for the regional level

69. Actors with distinct mandates and skills of a technical, social/trade union or political nature are found in increasing numbers on the regional stage. It would therefore be useful to evaluate these regional capacities in terms of their potential to contribute to the monitoring of the 10-year plan. A capacities stocktaking would clearly cover the existing thematic programmes carried out under the Convention. It would also cover regional bodies, intergovernmental organizations and political institutions, NGO federations concerned with rural development and the fight against desertification/land degradation, and federations of associations or other organizations of agricultural producers.

70. It is in fact recommended that the various skills available at the regional level and the existing and the potential technical, institutional and political capacity to implement and monitor the 10-year plan should be examined on a common basis. It is not merely a question of establishing the current situation in this regard but also of stimulating thought and discussion about the horizontal-cooperation frameworks to be put in place at this level for the future. This may take the form of integrated regional meetings to produce a comprehensive and homogeneous map of regional capacities and a concrete statement of the different stages (a road map) necessary to the implementation of the 10-year plan.

C. National level

71. It is also necessary to produce indicators for monitoring of the 10-year plan by country Parties. Such monitoring will facilitate the updating of national strategies to combat desertification. It would be desirable for countries to produce regular maps of their various measures and projects to combat desertification. This work is the essential foundation for long-term monitoring of the 10-year plan and the application of the Convention. If it is to be done properly, there will have to be recourse to the institutional and technical capacity resulting from the establishment of the arrangements for monitoring and assessing of the NAPs, for example the national coordination bodies or any other multisectoral national agency active under the Convention.

72. The country profile should be revised and supplemented in the light of the seven indicators of the 10-year plan. It is for the countries themselves to use or define methodologies for obtaining indicators closest to the indicators of the 10-year plan and to explain the details of the methodologies used in the reports produced under the Convention.

73. The recommendation in this connection is to update the information about the various national frameworks, laws and strategies relating to desertification/land degradation and the lists of indicators facilitating monitoring of their application: for example, agricultural and land-ownership legislation, the national adaptation programmes of action (NAPAs), the strategies for preservation of biodiversity, and the strategic framework for poverty reduction (national strategy papers). The best institutions for supplying useful information for implementing and monitoring the 10-year plan will thus be identified.

74. It will also be necessary to this end to support capacity building in the countries least well equipped to produce national statistics, in order to ensure that the process of monitoring the Convention will enable them to produce these statistics for their territories and gradually improve their national systems of environmental information.

75. The additional series of observations produced and made available, especially as a result of local environmental monitoring and surveillance, will be used to invest the information on the changes observed with an analytical dimension. Endogenous monitoring capacity should be developed at the local level, for example collaboration among scientists, technical personnel of decentralized services and local communities, especially with regard to the production of indicator S-7. Successful national experience of local monitoring of phenomena other than desertification might also serve as a reference point from the organizational angle (institutional arrangements, costs, human resources, and scientific and technical aspects of monitoring).

76. For the national level, the affected developed countries listed in the regional implementation annexes could furnish biennial reports on the monitoring of the 10-year plan, with the same three time frames as for global monitoring: the short, medium and long term. Indicators S-1 to S-6, which express variations, might perhaps be produced every three years, using at least three time frames for calculating a variation: short-term (for example, one year), medium term (four years) and long term (seven or more years).

77. For the affected developed countries listed in the regional implementation annexes, priority in supplying the indicators should be given to capacity building to make it possible to provide the indicators included in the country profile, once revised, within a reasonable time and using the chosen methodologies. If default data are available at the global level, indicators S-2 to S-6 could be produced at regular intervals and for several time frames.

Recommendations for the national level

78. The country profile should be adapted and supplemented by incorporation of the seven indicators of the 10 year plan. It will be for individual countries to use or define their methods of obtaining indicators closest to the indicators of the 10-year plan and to include details of the methods used in the reports prepared under the Convention. It is recommended that maps of the different measures and projects for combating desertification should be regularly produced for the new country profile. This work is the essential foundation of the long-term monitoring of the 10-year plan and the application of the Convention.

79. The indicators in the country profiles should take account of countries' capacity, especially where development is concerned. Countries should be involved in the updating of their country profile, a process which should lead to the identification of:

(a) New actors, scientists, NGOs, etc., producing relevant information and able to take part in the reporting process;

(b) Priorities for capacity building and data collection and processing to facilitate the provision of the indicators. The indicators should be ranked in importance according to the difficulty of their application.

80. It would be useful to back up the work on the country profile with a study listing the main national initiatives and arrangements for environmental monitoring and the existing environment observatories. The purpose of this study would be to examine the institutional arrangements and their operational status. It would establish how things stand in terms of existing and potential linkages between the national and local levels by proposing an inventory of existing local capacity. It would identify other relevant actors to support the State agencies who should be involved in the preparation of national reports and possible synergies meeting the needs of the three Rio conventions. The study should focus on a few concrete national cases on each continent and give priority to the examination of systems and measures already in operation or being set up.

D. General conclusion

81. The parties will wish to examine the proposed stages for refining and establishing all the indicators suggested for strategic objectives 1, 2 and 3, with a view to producing the best road map for meeting the needs of the Convention.

Annex

Example and inputs of the United Nations Framework

Convention on Climate Change

1. The United Nations Framework Convention on Climate Change addresses the management of a global problem – the warming of the planet – through inter alia the implementation of the Convention and the Kyoto Protocol. The purpose of this Protocol is to reduce and limit the increasing emissions and concentrations of greenhouse gases.
2. As in the case of the Convention to Combat Desertification, the Parties to the Climate Change Convention have to submit national reports on their application of the Convention to the Conference of the Parties. The content and the periodicity of national communications from the annex I country Parties are different from those of the non-annex I countries, pursuant to the principle of joint but differentiated responsibility endorsed by the Convention.
3. For all Parties, the principal element of their national communications is information about emissions and reduction of emissions of greenhouse gases and about the action which they have taken to implement the Convention. These communications contain information about the national context, assessment of vulnerability, financial resources and transfers of technology, as well as about education, training, and awareness-raising measures for the public at large; the reports of annex I countries contain additional information about policies and measures adopted.
4. There are two priorities. The first is to supply reliable and internationally comparable data and to make available consistent information about the action planned for reducing emissions and adapting to the effects of climate change. The second is to guarantee the quality of the reporting process: since 1994 Governments have been investing considerable time and resources in the preparation, collection and validation of the emissions data which they transmit.

Provision of default data for reporting

5. The Climate Change Convention relies on monitoring of the estimates made by countries on the basis either of the methodology of the Intergovernmental Panel on Climate Change (IPCC) validated by the Convention or of any other methodology duly explained by the countries or region concerned, including presentation of the outcomes and transparency concerning the mode of their production. This is the case for the European Union and Australia, which have their own methodology for assessing greenhouse gas emissions.
6. There is an IPCC ad hoc working group dealing with all matters connected with the production of methodological documents, including the choice of default data for countries which are entirely lacking in the data needed for the inventories. IPCC has developed for this purpose a tool for default calculation of emissions for countries in which the data remains unavailable. Today IPCC is working on the formulation of reliable methods of assessing the volume of the emissions prevented by forest conservation. This method might be used for monitoring the REDD mechanism. The work done on adaptation under the Nairobi Programme is also designed to assess the implementation of the adaptation strategies.
