



Rabat, Morocco
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Workshop **Sustainable consumption and production**

Towards a transformational post-2020 agenda



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Context

Predictions of demographic growth indicate that by 2050, the world's population will reach approximately 10 billion. Maintaining current lifestyles would require the resources of three planets to meet that population's needs. Today's food systems face great challenges. Indeed,

Many countries must solve their populations' problems of malnutrition and increasing obesity simultaneously (IFPRI 2016),

The food production promoted by the green revolution has led to the development of intensive systems, with negative consequences for the environment (Campbell et al., 2012) ;

- Food-production systems are responsible for almost 1/3 of greenhouse-gas (GHG) emissions (Vermeulen et al. 2012). In addition, 1/3 of the world's food production is lost or wasted. During the period 2010–2016, loss and waste represented 8 to 10% of GHG emissions (Mbow et al. 2019),
- Conversion of land to cropland is responsible for biodiversity loss (Newbold et al. 2015),
- Expansion of cropland to meet food needs from now to 2050 (a doubling of production) would be accompanied by a 10% to 20% increase in international trade from regions with abundant water resources to water-scarce regions (Pastor et al. 2019).

Future changes in climate will impose additional constraints upon the sustainability of current food systems (Swinburn et al., 2019):

It is estimated that between 2000 and 2050, more than 10.5 million children under the age of 5 will be affected by malnutrition caused by climate change (Phalkey et al., 2015).

The increase in partial pressure of atmospheric CO₂ will lower the nutritional value of cereals (Myers et al. 2015).

Sustainable Development Goal (SDG) 12 is a call to "Ensure sustainable consumption and production patterns". Noteworthy targets include:

- Target 12.2, "By 2030, achieve the sustainable management and efficient use of natural resources",
- Target 12.3 "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses", and
- Target 12.A "Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production".

However, Agenda 2030 goes beyond merely taking SDG 12's targets into consideration. It also requires that all of the development goals be taken into account as a whole, along with their synergies and trade-offs. Documenting these interactions to take advantage of synergies among the SDGs is one of the key messages of the Global Sustainable Development Report (GSDR, 2019). Recent scientific publications show the importance of considering the interactions among targets associated with the different SDGs. For example:

- Restoration of lands can combat hunger by increasing incomes, and by giving the rural poor access to knowledge and resources necessary to support increased production on their lands. The restored and rehabilitated lands offer even more important advantages because they can support increased food production. (IRP 2019),
- Agricultural products grown in soils rich in organic material are more nutritious (Wood et al. 2018),
- Production systems that emphasize biodiversity provide more-diverse diets with higher nutritional value (Jones, 2017; Dawson et al. 2019).

The scientific community agrees upon the importance of rebuilding a research agenda for determining the interactions among the SDGs (Sibhati et al. 2015; Haddad 2016; Springmann et al., 2018).

The Workshop

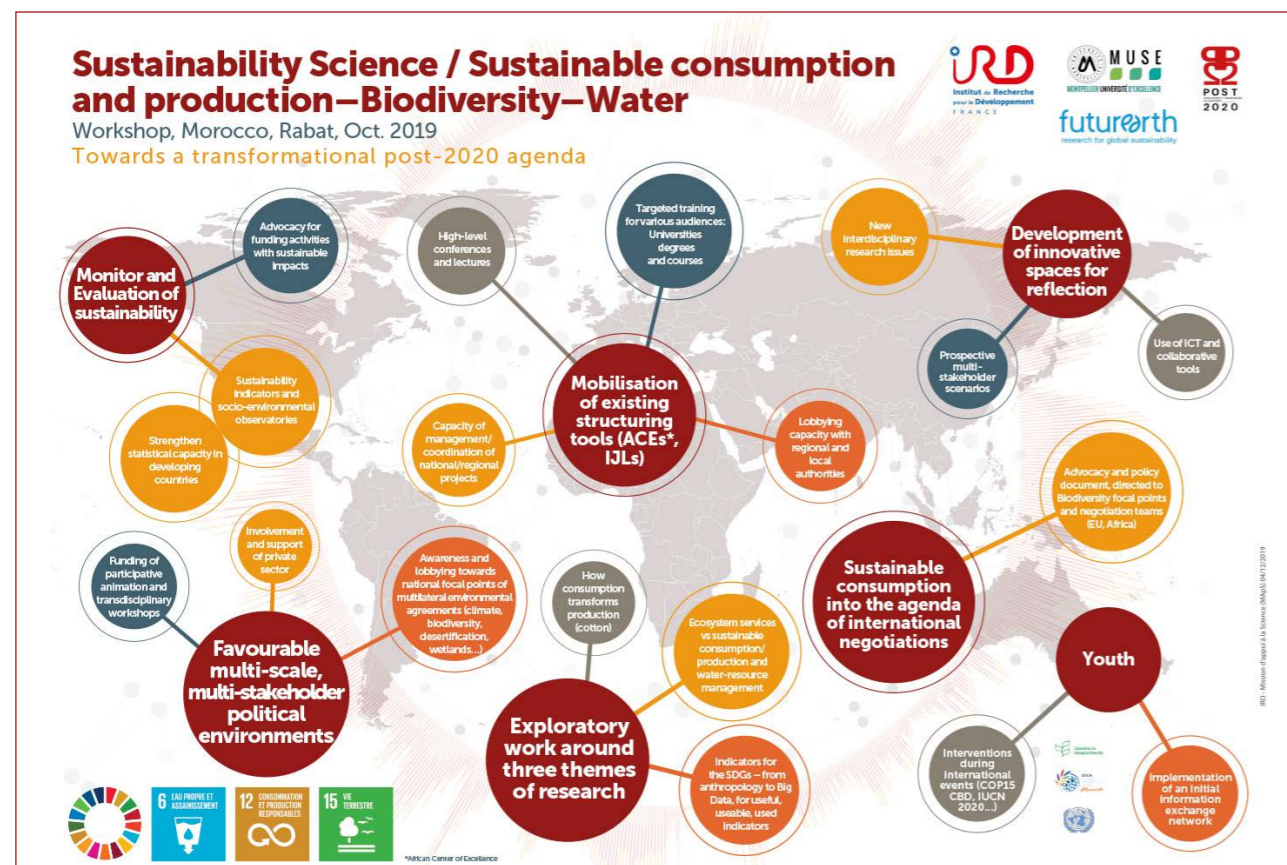
The Workshop "Sustainability Science: Sustainable Consumption and Production - Towards a Transformational Post-2020 Agenda" brought together about 30 participants from a variety of backgrounds and regions: scientists from the North and the global South (Ivory Coast, Morocco, Niger, Senegal, Tunisia and France); politicians (focal points of conventions, Ministers, and the French Embassy); international organizations (IUCN, UNCTAD, and UNCCD); and persons from civil society who are involved in Social and Solidarity Economy (SSE), in agroecology, and with youths. The workshop benefitted from responses (more than 40 of them) to a questionnaire that participants filled out days before the Workshop. (Cf. <https://planete-ird-sustainability-science.org/?AtelierMarocOctobre2019>)

After two days of work that combined plenary sessions with group work (always in participative formats), participants were able to propose many courses of action regarding the nexus "Sustainable consumption and production – Water – Biodiversity" and sustainability sciences.

Because those courses of action include scientific, educational, political and collaborative aspects, they constitute a first step of an agenda whose goal is to employ sustainability science to consolidate achievement of the SDGs.

That agenda will be strengthened by reflections that arise during upcoming workshops at the end of 2019 and the beginning of 2020.

The poster for the workshop



Proposals for principal actions and lines of thought

1. A new agenda for research

a. An exploratory work around three themes of research

During the workshop, participants worked on three themes for projects, and produced an initial grid of science fronts and potential partnerships.

Theme: How consumption transforms production, impacts biodiversity, and affects soil and water resources – Biodiversity and soil and water resources in the context of cotton production.

Addressing research gaps

Little research has been done on the consumption/production relationship:

- Evaluation of negative externalities: effects of one country's actions upon another ("virtuous" actions in France can impact biodiversity in the Sahel).
- Scale interaction (virtual water, imported deforestation), and impacts upon countries' capacities for production ("organic" production).

How consumption impacts the mode of production

- Traceability of products.
- Impact of cotton treatments upon resources.
- Alternatives to cotton.

Partnership

- Consumer groups.
- Agricultural organisations.
- Producers of other textile products.
- Private sector: Fashion industry, large-scale distributors, consortiums such as the Orée group, EPE.
- Political decision-makers.

Other economic actors (SSE structures, etc.), informal sector.

Theme: How ecosystemic services provided by biodiversity are a lever for sustainable consumption/production and water-resource management.

Research gaps

- Challenge 1: Methodology for an inter and transdisciplinary approach to interventions by scientific actors: Economists, sociologists, biologists, agronomists, ecologists and statisticians.
- Challenge 2: How to identify the services that are considered most relevant by the different actors.
 - Identifier les catégories des services est plus pertinente.
 - Lister les services les plus pertinents en termes de financement futur.
- Challenge 3: What is sustainable consumption.
 - Green economy versus sectoral economy.
- Challenge 4: Consideration of ancestral practices.

Partnerships and communities to target

- Specialised NGOs, state-level institutions, private businesses, sponsors, political and economic decision-makers, communities.
- Territorial authorities, local and autochthonous populations, political and economic decision-makers, groups of private individuals.

Theme : Production and validation of indicators for the SDGs – Mobilisation of multiple disciplines, from anthropology to Big Data, for collaborative development of useful, useable and used multi-criteria indicators.

Research gaps

- Analyse existing indicators, and why they are unsatisfactory for current needs (the need for long-term follow-up is important).
- Identify the challenges faced by countries of the North and global South.
- How to have multi-criteria indicators based upon Big Data and non-institutional data.
- How research can improve/validate existing multi-criteria methodologies: cartography, ecosystemic services, etc.

Example: Multi-criteria national indicators – soil fertility is assessed from national yields. There is a large gap between the local and national levels. Science can better define and measure these indicators, and propose new ones.

Actors to be mobilised

- National statistical institutes (permanent).
- Regional statistical institutes (AfriStat?).

b. A reflection upon two components of Sustainability

► Advocacy for the financing of activities/projects with sustainable impacts (cease funding actions that do not move toward sustainability)

Funding (private and public) of research and development activities (which is already substantial) must be oriented as much as possible towards sustainable approaches. Some ongoing research projects are indeed moving towards non-sustainability, and the sustainability impacts of others are not certified. It is necessary to promote consortiums that involve funders of research in order to create leverage, and to respond to requests by technical and financial partners for information on scientific aspects.

The Belmont Forum, the french ANR, the CGIAR, and Foundations are among the first “Science” actors to be mobilised. The AFD and the IDB, which has put sustainability science on its agenda, could also be mobilised.

► Evaluation and indicator of the sustainability (social-economic-environmental) of “sustainable” projects

Target SDG 17 states, “By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries”.

The cruel lack of systems for monitoring and evaluating sustainability complicates the estimation of whether an activity that is undertaken contributes to sustainability.

Actions

- Involve the Ministries in charge of research in the design of post-project monitoring of development projects (strengthen links with Ministries in charge of planning/development/agriculture).
- Advocate that international donors earmark part of their funding for post-project scientific evaluation.
- Consider basing evaluations of development projects upon inputs and advice from multiple stakeholders.
- Establish socio-environmental observatories to monitor the project before its creation and after its completion. The cost of this measure is small compared to the total cost of a development project.

2. Mobilisation of existing structuring tools such as ACEs and IJLs to deploy Sustainability Science

Proposal to develop a chair/centre for sustainability science within an African Centre of Excellence (ACE).

This centre could be regional in scope (linked to partner ACEs?) and dedicated to actions that include:

- Targeted training for various audiences: political, institutional, Ministerial, private.
- Modules and degree units included in the curricula of the partner universities.
- Regular high-level conferences and lectures.
- Lobbying capacity with regional and local authorities, and
- Capacity of management/coordination of national/regional projects.

This type of centre could also have strong interactions with the programme Future Earth, as well as with the UNESCO and the United Nations University (UNU), which develop activities around Sustainability science in their respective programs.

- Support for the creation of a International Joint Laboratory (IJL) at IRD around the nexus.

Actions

IRD and its partners could make initial proposals

- with existing ACEs.
- to mobilise IRD’s research tools in partnerships (such as IJL or network program).

3. Development of innovative spaces for reflection

To foster multi-stakeholder dialog and interdisciplinary approaches, it is necessary to promote spaces/platforms where information from different actors is either available or referenced.

Spaces for dialog and exchange would also be proposed.

To function well, and to ensure the coordination, cohesiveness, and value of their activities, these spaces must have access in parallel to (scientific) animation and/or network activity.

Eventually, this type of platform could:

Identify

- New questions for interdisciplinary research.
- New sources/methods of funding.
- New types of partnerships.

Define prospective multi-stakeholder scenarios.

Use of ICT tools with the format of the site used during the Rabat workshop (<https://planete-ird-sustainability-science.org>) is one possibility to be explored because of their intuitiveness and low cost.

4. Supporting youth engagement

Young people must continue their commitment to the subject of global change and the SDGs a fortiori on the African continent. Many local movements exist on the local scale (JVE Niger) and at the international level (Global Youth Biodiversity network); they require better coordination, stronger support, and continuity.

Actions

- Creation and implementation of an initial information-exchange network
- Speaking at international events.

Three key moments were identified in the Agenda 2020 regarding the SDGs and activities carried out by the youth movement

- ▶ Participation in the African Union Summit, with a presentation by youth (support Niger?)
- ▶ Intervention at the IUCN World Congress (2nd week) where Youth activities are programmed (link with IUCN and Expertise France)
- ▶ Parallel workshop at CBD COP 15 (Expertise France, IRD, CBD member country).

5. Beyond the academic world: develop interfaces between Science Fronts and the political agenda

a. Fostering the creation of favourable multi-scale, multi-stakeholder political environments around sustainability science and the nexus.

Actions

- Awareness and lobbying of the focal points of multilateral environmental agreements for consideration into position papers of the countries within the framework of the international negotiations (discussions during COPs¹, SBI²; SBSTA-CST3 . . .). Member or partner countries of the EU (Morocco, Tunisia) can play this role with EU bodies or delegations in their respective countries.
- Stakeholders in the private sector should also be supported and asked about these dynamics, particularly the private-sector stakeholders that have included SDGs in their business strategies (LVMH, Unilever).
- Make the funding of participative animation and transdisciplinary workshops eligible in the terms of reference of calls for proposals for research projects, and by allowing the support of internal or external expertise.

These activities undergo an initial process of lobbying and communication with stakeholders, plus training work (in connection with proposal 1).

The scientific community as a whole must be able to take ownership of this advocacy work.

b. Integrating sustainable consumption into the agenda of international negotiations

Many targets of sustainable consumption (and action agendas) exist, but are not implemented even though the loss of biodiversity and ecosystems is often synonymous with loss of production.

This theme is all the more important because of China's presidency of the next CBD COP in October 2020.

Actions

- Proposal of an advocacy and policy document regarding this nexus, directed to the Biodiversity focal points and negotiation teams (EU, Africa), emphasizing aspects of sustainable consumption. An initial text could be taken to future CBD SBSTAs.

Miscellaneous

- Documenting the strategy used to make the site planet IRD - towards a publication "How to achieve a multi-actor experience based on digital tools".
- Proposing a definition of sustainability science specific to the IRD vision.
- Fund a thesis on methodology, transdisciplinarity, and SDG nexus.

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2 Body in charge of monitoring implementation of the Conventions.

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All the results and cooperative tools used during this workshop are available on <https://planete-ird-sustainability-science.org/?AtelierMarocOctobre2019>



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