This module presents both the economic context in countries in which REDD+ needs to be implemented, as well as more detailed elements of a REDD+ finance plan including potential sources of finance.

The module includes explanations about:

• REDD+ as part of a country’s overarching Green Economy transition
• REDD+ finance-in the context of UNFCCC
• The economics of deforestation
• Sources and gaps in funding for REDD+, and
• The building blocks of a UN-REDD financing plan

What do you already know about this topic?
A PARADIGM FOR A NEW ECONOMY

REDD+ is a concept to financially reward developing countries for their verified emission reductions or removals of greenhouse gases compared to a forest reference emission level or forest reference level (FREL/FRL) that complies with relevant safeguards. However, in order for REDD+ to work in practice, it is important to embed it within a country’s broader plans to transition to a low-carbon, more resource efficient and equitable economy.

REDD+ AND THE GREEN ECONOMY

Climate change and environmental degradation (water quality, deforestation, etc.) are forcing governments, companies and consumers alike to change the way they make decisions, by better balancing economic growth with environmental protection. The unprecedented economic growth of the 20th century, which is based on resource extraction and where economic growth is disconnected from carbon emissions and wider ecosystem impacts such as loss of biodiversity, is in need of a paradigm shift, to a global economy that is built around the efficient use of land and water resources.

This transition would involve a move towards a “Green Economy”, defined by UNEP as: “an economy that results in improved human well-being and social equity, while significantly reducing environmental risks” as shown in Figure 9.1. In order for the broader land-use sector (including forestry, agriculture and other sectors) to contribute to a transition to a Green Economy, significant capital is needed to stimulate emerging economies to reduce rates of deforestation and forest degradation as well as encouraging sustainable management of forests, conservation and enhancement of forest carbon stocks (REDD+).

REDD+ is an integral part of this economic transition and its results-based financing approach has the ability to act as a catalyst for countries to transition to a low-carbon economy. However, in order for REDD+ to become an attractive proposition for emerging economies, a balance will have to be sought between the need to reduce or remove forest carbon emission, support for forest dependent communities and protection of biodiversity and other pressing social and economic needs, such as food security, continued availability of non-timber forest products (e.g. rubber, fruits, nuts, etc) and higher outputs from the agricultural sector, and mining. This integral relationship whereby REDD+ is the catalyst for economic transition through results-based finance is shown in Figure 9.2.

REFLECTION POINT

Do you think addressing environmental and social issues necessarily affect negatively a country’s economy? How does this relate to the Green Economy?
Figure 9.1 REDD+ EMBODIES CHANGING ECONOMIC PARADIGM
- source: UN-REDD Programme

What does the Green Economy stand for?

- Low-carbon economy (i.e. decouple economic growth from greenhouse gas emissions)
- Resource efficiency (conserve, re-use and re-cycle as opposed to extract)
- Good governance incl. law enforcement (e.g. low levels of corruption)
- Equitable distribution of benefits

Integrate value environment in public/private decision-making (e.g. through inclusive wealth accounting)

REDD+ is interlinked with the Green Economy

What does REDD+ stand for?

- REDD+ activities: Reduce deforestation and forest degradation & conservation, sustainable management of forests and enhance forest carbon stock
- Reward developing countries financially for verified reductions/removals forest carbon
- Equitable sharing of REDD+ benefit
- Multiple benefits: focus forest carbon & other ecosystem services (multiple benefits)
- Address safeguards (social and environmental (incl. biodiversity)).

Figure 9.2 INTEGRAL RELATIONSHIP BETWEEN REDD+ AND A GREEN ECONOMY
- source: UN-REDD Programme
In order to receive results-based payments/finance, a country needs to tackle the direct and indirect drivers of deforestation and identify the best incentive structures and response measures to achieve that at national (or sub-national) level. So the broader perspective of REDD+ finance also includes understanding and addressing the economic and financial drivers that currently contribute to deforestation, as well as assessing the effect of (changing) deforestation rates on gross domestic product (GDP) in order to build a ‘government and business case’ to transition to a Green Economy. The next section takes a quick detour to provide readers with the REDD+ finance-relevant decisions that have been made in the context of the UNFCCC after which further sections focus in more depth on the issues discussed above.

**REDD+ Finance in the Context of the UNFCCC**

At COP 19 in Warsaw the seven decisions adopted and referred to as the “Warsaw Framework for REDD+” completed the “REDD+ rulebook”. The “Warsaw Framework” includes a decision on enhancing coordination of support for the implementation of activities, including institutional arrangements. A first decision on aspects related to finance for results-based actions (RBAs) was also adopted. The UNFCCC has set out the process for developing countries to have the results of their REDD+ activities recognised for results-based payments (RBPs) and results-based finance (RBF).

Results-based actions (RBA) are referred to in the UNFCCC text a number of times. For example:

- Decision 1/CP.16, paragraph 73: results-based actions that should be fully measured, reported and verified;
- Decision 1/CP.16, paragraph 77: Ad Hoc Working Group on Long-term Cooperative Action under the Convention to explore financing options for the full implementation of the results-based actions [these actions require national monitoring strategies];
- Decision 2/CP.17, paragraph 64: for developing country Parties undertaking the results-based actions referred to in decision 1/CP.16, paragraphs 73 and 77, to obtain and receive results-based finance, these actions should be fully measured, reported and verified;
- Decision 9/CP.19, progression of developing country Parties towards results-based actions occurs in the context of the provision of adequate and predictable support for all phases of the actions and activities referred to in decision 1/CP.16, paragraphs 70 and 73;

Results-based payments/finance (RBP/RBF) is also referred to a number of times, for example:

- Decision 9/CP.19, that results-based finance provided to developing country Parties for the full implementation of the activities referred to in decision 1/CP.16, paragraph 70, that is new, additional and predictable may come from a variety of sources, public and private, bilateral and multilateral, including alternative sources;
- Decision 9/CP.19 Parties undertaking the results-based actions referred to in decision 1/CP.16, paragraph 73, to obtain and receive results-based finance, those actions should be fully measured, reported and verified, in accordance with decisions 13/CP.19 and 14/CP.19….., and developing country Parties should have all of the elements referred to in decision 1/CP.16, paragraph 71, in place, in accordance with decisions 12/CP.17 and 11/CP.19.
REDD+ finance for countries can be referred to as the payments or finance that a country receives for the successful implementation of actual reductions or removals of forest carbon emissions (RBF/RBP) that have been verified according to the UNFCCC process against an established FREL/FRL using relevant safeguards. It is important to realize that finance will generally be provided for results (ex post) and not actions (ex ante).

A combination of policies and measures (PAMs) are needed to achieve REDD+ results. However, it is important to realize that while RBF will be made for actual emission reductions (ER) achieved, not all PAMs achieve ER directly. For example, having a good governance structure in place and putting in place a National REDD+ Fund or other institutional mechanism is an important PAM which by itself will not achieve ER (and therefore payments). It is rather an important enabling factor. More information on PAMS can be found in Module 7: Policies and measures.

FUNDING VS. FINANCE

It is important to differentiate between “funding” and “finance”.

**REDD+ “FUNDING”**

One would speak of “funding” if the money does not have to be repaid and there is generally no financial return. In this case, the generation of money - or more precisely the generation of the incentive to invest money - for a particular activity will help make an investment commercially viable, and/or competitive to conventional investment alternatives. For example, if an entity were to establish a floor price on carbon (for example US$ 3 dollars per tCO$_2$-eq up to 200,000 tons) that would incentivize e.g. forest companies and their investors to change or extend their business model towards a model whereby forest carbon is one of several (or the only) revenue streams. If the company were successful in selling forest carbon credits to potential buyers for a price that is higher than the floor price (for example it would sell credits for US$7 per tCO$_2$ for a certain amount of forest carbon), the floor price would not kick in. However, if the company were unsuccessful in selling its forest carbon it could sell it to the entity that had provided the floor price ensuring a minimum revenue stream from forest carbon for the sustainable forest management business (and its investors). So the floor price on carbon can be regarded as ‘REDD+ finance’ in this instance because it generates incentive to make an investment commercially viable. However, this should be regarded as ‘funding’, because any money received by the sustainable forest management company would not normally have to be paid back.

**REDD+ “FINANCE”**

“Finance” on the other hand, means making money available upfront (ex-ante) for investment. The money is typically repaid from the on-going operations and cash flows of...
the investment (ex-post). The two main types of finance are debt (often loans) and equity investments. For example, a bank that provides a loan to a forest management company for enlarging its business with a sustainable forest management component will have to be paid back with interest. In this case 'REDD+ finance' is actual 'finance' because the principal will have to be paid back to the entity (a bank) with interest.

**REDD+ FINANCE IN THE CONTEXT OF DIRECT AND UNDERLYING ECONOMIC DEFORESTATION DRIVERS**

The primary focus of the UN-REDD Programme is to successfully support partner countries to achieve all elements of REDD+ readiness in order to enable them to move to implementation and ultimately to receive results-based finance/payments. In order to do so, it is important to first understand the various direct, indirect and external economic and financial incentives and disincentives that can add or reduce pressure on forests. Further discussion on the analysis of drivers can be found in Module 3: Drivers of Deforestation and Forest Degradation. These pressures can be further explained using three levels of economic and financial incentives to either conserve/sustainably use or convert forests to alternative land uses, as seen in figure 9.3.

![Figure 9.3 FINANCIAL INCENTIVES FOR REDD+ - source: UN-REDD Programme](image-url)
**LEVEL 1. PLACING A PRICE OR VALUE ON FOREST CARBON**

Valuing forest carbon and other ecosystem services forests provide (e.g. through a carbon tax) can incentivize landowners (public and private) to reduce deforestation and forest degradation.

**LEVEL 1. PLACING A PRICE OR VALUE ON FOREST CARBON**

Different direct and indirect policies and measures can tackle the drivers of deforestation to generate REDD+ results-based payments/finance(for verified emission reductions/removals).

**LEVEL 3. THE INFLUENCE OF EXTERNAL FACTORS**

Agricultural commodity prices, exchange rates between countries trading goods that lead to deforestation, sovereign debt, etc.

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**LEVEL 1. PRICE OR VALUE ON FOREST CARBON**

One of the primary reasons why (tropical) forests disappear is that the economic system generally does not provide a price or value on forest carbon and/or other forest ecosystem services, such as the water regulating functions that forests provide.

**REFLECTION POINT**

Other than regulating water, what are some of the other services that ecosystems provide which are not given an economic value?

**LEVEL 2: DIRECT AND INDIRECT ECONOMIC ISSUES THAT ADD OR REDUCE PRESSURE ON FORESTS**

Addressing direct and indirect drivers of deforestation can be equally as effective as pricing. Brazil has been able to reduce deforestation from: 27,000 km² in 2000 to 5,000 km² in 2011, with a total avoided forest loss during those years equal to 62,000 km². This is ≈ 2.3 billion tons CO₂ loss avoided due to a range of policies and measures (equivalent to emissions of 131 coal fired power plants over 5 years).

![Figure 9.4](image-url)  

**A COMBINATION OF POLICIES AND MEASURES COUPLED WITH FAVOURABLE EXTERNAL CONDITIONS HAS LED TO SIGNIFICANT REDUCTION IN DEFORESTATION IN THE BRAZILIAN AMAZON BETWEEN 2000 – 2011 - source: UN-REDD Programme**
Subsidies, taxes, import/export tariffs, constraining credit or equity are all indirect economic and financial tools that can either add or reduce pressure to convert forests regardless of how they are structured.

Figure 9.5 presents the example of agricultural subsidies in Indonesia and Brazil. The main elements in this graphic are:

I. Subsidies for agriculture are orders of magnitude greater than REDD+ finance as shown in examples of Indonesia and Brazil in figure 9.5;
II. Fiscal & policy incentives supporting agricultural development were not designed with REDD+ in mind;
III. The enabling environment is crucial for REDD+ including supply chain sustainability and zero net deforestation commitment.

More analysis is required to understand how the various individual subsidies in the timber, palm oil, soy and other soft commodity supply chains contribute to deforestation.

**LEVEL 3: EXTERNAL FACTORS THAT AFFECT DEFORESTATION / FOREST DEGRADATION**

Even if there is a price or value on forest carbon and even if policies and measures (PAMs) are implemented by countries that tackle the drivers of deforestation and forest degradation, it is important to be aware of external factors that are difficult to influence, but can affect forests in a significant way.

Two contrasting examples include:

I. When agricultural commodity prices for crops such as soy drop, it dis-incentivizes farmers from encroaching into forests further because their revenue drops with falling prices;
II. In a similar fashion if prices for palm oil, soy and other crops rise, it encourages farmers and others to clear more land because of potential increased revenue with increasing prices (as shown in figure 9.6).

External factors include: exchange rates, sovereign credit ratings and debt, international market price of (soft) commodities and fossil fuel prices. These factors are context specific and need to be understood in the context of each country.
Some external factors can be (partly) influenced by governments, such as a country’s exchange rates which can be affected by central banks’ monetary policy. For example, if the currency of a soft commodity producing country drops against the currency of an important consumer country, it becomes relatively cheaper to export, which in turn can add pressure to convert forests. In a similar fashion, if the currency of a soft commodity producing country appreciates because of overall substantial economic growth, it can actually reduce the pressure on forests as the crops produced become relatively more expensive for consumer countries to buy.

Crop prices have a ‘positive correlation’ with deforestation rates in the Brazilian Amazon, meaning that higher/lower prices for crops correspond to higher/lower deforestation rates, as shown in Figure 9.6. By contrast this relationship is less clear with regard to other agricultural activities such as livestock.

Figure 9.6 DEFORESTATION RATES COMPARED WITH WHEAT PRICES IN LEGAL AMAZON - source: Assuncao et al., 2012

Reflection Point

Think of a policy or measure which could be used to address each level of economic driver of deforestation.

This section briefly presented how economic and financial factors can influence deforestation and forest degradation. The following section will concentrate on how policies and measures for REDD+ implementation can be financed.

GLOBAL SIZE OF REDD+ FINANCE

UNEP estimates in a report by the International Resource Panel that about US$30 billion per year will be needed for results-based payments from 2020 (UNEP, 2014)².

Aggregate pledges and investments from both the public and private sectors to date are significant, at more than US$9.8 billion for the period between 2006 and end of 2014 (Norman and Nakhooda, 2015)³, which is below the UNEP estimate of USD 30 billion/annum. Norway, USA, Germany, Japan and the UK have provided about 75% of total funding. About 89% of the funding comes from public sources with the remaining 11% from the private sector (including foundations).

Figure 9.7 gives an overview of the type of finance provided divided between;

I. Multilateral;
II. Bilateral;
III. Private sector; and
IV. Unknown.

Brazil and Indonesia together receive 35% of allocated funding out of a total of 80 recipient countries. Liberia and Tanzania are the most significant recipients of REDD+ finance in

REFLECTION POINT

Does your country receive REDD+ related finance?

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² UNEP, 2014. Building Natural Capital
Africa, while Peru and Guyana are the most important ones in Latin America (after Brazil). Besides international support for REDD+, the scale of domestic sources to reduce emissions from deforestation is also growing. According to Streck and Parker (2012)⁴, about US$10 billion/year is allocated in terms of domestic funding, with the largest share allocated by the Chinese government. Mexico and Ghana have respectively allocated US$433 million and US$39 million domestically, which accounts for 43% and 37% of total REDD+ finance for these countries.

In terms of domestic funding, REDD+ can potentially support the implementation of Intended Nationally Determined Contributions (INDCs). The forestry sector is an important piece of Chile’s INDC, for example, because of its critical contribution to mitigate greenhouse gas (GHGs) emissions both domestically and internationally. It is for this reason that Chile, through the Ministry of Agriculture and specifically with the National Forestry Corporation (CONAF) has decided to accelerate the implementation of forestry programs aimed at GHG mitigation. The National Strategy for Climate Change and Vegetation Resources has been developed for this purpose.

FROM READINESS TO IMPLEMENTATION: STRUCTURING A REDD+ FINANCE PLAN

A financing plan for REDD+ forms a key element in moving from Readiness to implementation. This section takes a brief look at the interplay between financing and implementation, as shown in Figure 9.8, and introduces the “why”, “what” and “how” of REDD+ implementation at national level. Important elements that a country needs to take into consideration at this point include:

• What policies and measures (PAMs) it will prioritize based on the intended effect of tackling either the direct and/or underlying drivers of deforestation in order to achieve REDD+ results;
• What are the financial needs for implementing these PAMs? Some PAMs may not require upfront capital such as changes in fiscal instruments. Other actions do require upfront capital, such as incentivizing smallholders to remove and replant crops (e.g. palm oil trees) that have higher yields per hectare. The Forest Investment Programme⁵ (FIP), a US$785 million funding window of the US$8.1 billion Climate Investment Funds⁶ (CIF), is an example of a facility meant to financially support countries with results-based actions (phase 2);
• The possibility of generating REDD+ finance upfront (ex ante) to cover costs, and what sources of REDD+ results-based finance are available assuming that the PAMs will yield the intended tCO₂ reduction or removal of forest carbon;
• What institutional, legal and other arrangements need to be put in place to unlock REDD+ finance?

REFLECTION POINT

Do you remember the 4 readiness elements that countries need to develop in order to receive results-based payments?

⁵ http://www.climateinvestmentfunds.org/cif/node/5
⁶ http://www-cif.climateinvestmentfunds.org/
Figure 9.8 STEPS TO KEEP IN MIND WHEN MOVING FROM REDD+ READINESS TO IMPLEMENTATION - source: UN-REDD Programme

Figure 9.9 CONNECTING FINANCIAL NEEDS TO IMPLEMENT PAMS WITH POTENTIAL SOURCES OF FUNDING AND ARRANGEMENTS - source: UN-REDD Programme
Figure 9.9 illustrates the process of connecting potential funding to implement PAMs with potential sources of funding, including the arrangements required to release those funds, while Figure 9.10 provides the “abatement potential” (how much tCO₂ is a country likely to reduce or remove given the uncertainty) of different PAMs, portrayed on the x-axis against costs of implementation on the y-axis.

The potential types of PAMs shown in Figure 9.10 are for illustrative purposes only. The following discussion focuses on the example of tackling illegal deforestation as a potential policy or measure that a country may choose to implement. From a cost perspective this may involve hiring more forest rangers in order to reduce the chance of illegal deforestation happening. This by itself implies a cost for the government. However, bringing the timber industry into legality could also constitute tax revenue, which could (partly) offset the costs of tackling illegal deforestation. The costs (monetary) and benefits (abatement potential) can be established for other potential policies and measures as well, even only as a rough estimate in order to make informed decisions what policies and measures to implement. Lastly, besides the costs and carbon benefits, it would be very helpful to also try to maximize the non-carbon ecosystem benefits (in terms of water regulation potential, etc).

**Reflection Point**

What are the PAMs found in Figure 9.10 which could be, or are, implemented in your country?
FINANCIAL SOURCES OF REDD+ AND ARCHITECTURE TO CHANNEL FUNDS

As shown previously, public bilateral and multilateral sources of finance have provided the largest part of REDD+ finances so far. The Green Climate Fund (GCF) is expected to be an important source of climate change finance in the years to come, including for REDD+. On 20 November 2014 US$9.3 billion was pledged by various governments to the fund. Another important source of funding might come from the private sector, depending on the incentive framework that a government puts in place to unlock private finance by creating new market mechanisms. Figure 9.11 presents an overview of the REDD+ Finance landscape.

The Green Climate Fund\(^7\) and the REDD Early Movers\(^8\) (REM) Programme are discussed in Box 9.12 in order to provide a bit more insight what these entail and how they are structured before moving to the steps that countries can consider when building the financial arrangements for REDD+.

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\(^7\) [http://www.gcfund.org/about/the-fund.html](http://www.gcfund.org/about/the-fund.html)

Box 9.12 GREEN CLIMATE FUND AND REDD EARLY MOVERS

THE GREEN CLIMATE FUND (GCF)

The GCF was created to receive and channel resources for climate change mitigation projects, policies and activities. So far it has managed to mobilize about US$10 billion. Land use is one of the four windows that have been created as abatement mechanism to reduce greenhouse gas emissions. The logic framework for results-based payments/finance (RBP/RBF) is based on the UNFCCC Warsaw Framework or “REDD+ rule book”.

The GCF is an operating entity of the UNFCCC’s financial mechanism. Recipient countries can submit funding proposals through National Designated Authorities (NDAs). Recipient countries will be allowed direct access through accredited sub-national, national and regional implementing entities they propose and set up as long as these implementing entities fulfil certain fiduciary standards. The modalities of access remain to be agreed. GCF funds can also be accessed through multilateral implementing entities, such as accredited multilateral development banks (e.g. African Development Bank and others) and UN agencies (e.g. UNDP).

A private sector facility will also be established that allows direct and indirect financing by the GCF for private sector activities. National Designated Authorities, which can object to private sector activities, are to ensure that private sector interests are aligned with national climate policies.

REDD+ EARLY MOVERS PROGRAM (REM)

The German REDD Early Movers Programme (REM) is commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the KfW Development Bank and the Gesellschaft für Internationale Zusammenarbeit (GIZ). The REM programme promotes forest conservation and is designed to strengthen performance-based payments for demonstrated emission reductions and provides accessible bridging finance for countries, which have already taken independent action towards mitigating climate change.

It aims to assist in closing the funding gap by supporting REDD+ early actions – financing for “early movers”. REM supports emission reduction efforts achieved at a national, sub-national or biome level. One of the eligibility criteria is that a subnational or biome approach is integrated in national strategies and aligned to policies to reduce deforestation and associated emissions.

It includes both payment modalities for investment or capital requirements upfront (ex ante) as well as payments for results (ex post). Some of the countries and entities that have been supported include:

• Acre State- payment made for emissions reductions verified in 2012. In the next 4 years, Acre will continue to be supported for reducing 8 MTCO₂.
• Colombia and Ecuador: Letter of intention signed at COP20, which is in the process for setting an agreement.
Countries face various options when deciding how to identify, generate and manage REDD+ funds. They may consider:

I. If they will use existing arrangements or create new ones;
II. If they create new ones, what shape will they take;
III. Whether governments can use budgetary systems, extra-budgetary, market-based instruments or a combination of all of these.

These are highlighted in three steps below:

**STEP 1 – WHAT ARE THE NEEDS OF THE COUNTRY?**

- What sources of funding are expected to be mobilized;
- What are the kind of disbursements considered (reimbursable or not, size of disbursements);
- Who will be the beneficiaries (households, communities, companies, government, NGOs, aid agencies);
- Is there need for intermediaries;
- What will be the type of projects that will be supported (capacity building, policy reform, investments in productive activities, carbon).

**STEP 2 – ASSESSMENT OF EXISTING ARRANGEMENTS**

- How the modalities ensure coordination with national policies?
- Are the modalities transparent?
- Where the funds come from?
- Disbursement capacities (to whom, what size, what sort of payment)?
- How efficient the procedures are (complexity, length of procedures, VfM)?
- How effective the modalities are (earmarking, carry-overs, multiyear budgets, ring-fencing, leakage, additionality, permanence)?
- Co-benefits.

**STEP 3 – ASSESSMENT OF THE ARRANGEMENTS THAT CAN BE CREATED**

- The explanation for a specific shortcoming in the modalities described;
- Can the existing modality be adapted;
- Or should a completely new structure be created;
- What are the cost/time implications of either decision?

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**Box 9.13 PROVIDING INCENTIVES FOR PRIVATE SECTOR INVESTMENT**

**Clear regulatory framework:** the regulatory framework of a country needs to articulate key roles and responsibilities of all key actors;

**Economic incentives:** to redirect finance away from carbon intensive/high forest impact investments to an alternative model that decouples productive activities from forest impacts economic incentives such as tax breaks, subsidies or carbon payments/payments for environmental services are likely needed;

**Timeframe:** consistent policies over a longer timeframe are needed to encourage private businesses to invest for change.
India’s fiscal transfer formula for state allocations includes forest cover


**ISSUE**

India's fiscal transfer formula for state allocations includes forest cover. India has 69.7 million hectares of forest. There are important pressures on these forests, particularly from extraction and fodder. While India is preparing for REDD+, and considering UN-REDD and FCPF participation to leverage resources for capacity building for implementation, the country is moving ahead to directly address the perverse incentives that impact forests by reconfiguring their intergovernmental transfer system.

**ACTION**

*Types of fiscal incentives and where in the supply chain:* India's intergovernmental fiscal transfer system is the mechanism by which the central government distributes the net proceeds of taxes back to states. As significant amounts of forestland are utilized and managed at local scales, for example, in Panchayats and Gram Sabhas, fiscal policies and decisions at these scales are important. India's intergovernmental fiscal transfer system previously did not include a way to recognize the fiscal implications of natural resource and forest management decisions.

*Reason for intervention:* India's 14th Finance Commission recognized the perverse incentives that state and local governments had to undervalue and mismanage forests, and observed that declining revenue from forests was a concern to some states, due to the implementation of the National Forest Policy.

*Evaluation of trade-offs:* As the Commission was charged with considering the need to balance management of ecology, environment and climate change consistent with sustainable economic development, the Commission concluded:

*India's intergovernmental fiscal transfer: formula for state allocations includes forest cover*

"Forests and the externalities arising from them impact both the revenue capacities and the expenditure needs of the States. We have noted that there is a need to address the concerns of people living in forest areas and ensure a desirable level of services for them. At the same time, it is necessary to compensate the decline in the revenues due to existing policy prescriptions. In our view, forests, a global public good, should not be seen as a handicap but as a national resource to be preserved and expanded to full potential, including afforestation in degraded forests or forests with low density cover. Maintaining a green cover, and adding to it, would also enable the nation to meet its international obligations on environment related measures. We recognise that the States have to be enabled to contribute to this national endeavour and, therefore, we are designing our approach to transfers accordingly.”

*Action taken to reverse or reform fiscal incentives:*

India took action on two fronts:
1. Increasing the amount of revenue allocated to states by 10%, and
2. Assigning a 7.5% weight to forest cover in the allocation formula of revenue going to states.

The criteria and weights in the new allocation formula are as follows:

**Table: Criteria and Weights**

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>17.5</td>
</tr>
<tr>
<td>Demographic Change</td>
<td>10</td>
</tr>
<tr>
<td>Income Distance</td>
<td>50</td>
</tr>
<tr>
<td>Area</td>
<td>15</td>
</tr>
<tr>
<td>Forest Cover</td>
<td>7.5</td>
</tr>
</tbody>
</table>

*IMPACT*

The percentage weight allocated to forest cover is expected to deliver $6 billion a year to Indian states. This works out to roughly $120 per hectare per year and is competitive with agriculture production earnings, thus providing economically viable support to states seeking to grow their agricultural output without clearing forests.
Exercise 17

Decide if the following economic factors are related to
(1) carbon price,
(2) direct or indirect drivers, or
(3) external factors.

- Law protecting forested land
- Changes in the price of corn on the international market
- Forests are home to animals which help fertilize crops, but it is difficult to define a value for this service.
EXERCISE 18

Define if the following sources of funds are Private or Public, and Domestic or International.

- **German REM programme**
  - Domestic
  - International
  - Public
  - Private

- **Budget of the Ministry of Forestry**
  - Domestic
  - International
  - Public
  - Private

- **International carbon markets**
  - Domestic
  - International
  - Public
  - Private

- **Investment by local companies in the green economy**
  - Domestic
  - International
  - Public
  - Private
KEY MESSAGES OF THIS CHAPTER

- REDD+ is a concept to financially reward developing countries for their verified emission reductions or removals of greenhouse gases compared to a forest reference emission level or forest reference level (FREL/FRL) that complies with relevant safeguards.

- REDD+ is an integral part of this economic transition and its results-based financing approach has the ability to act as a catalyst for countries to transition to a low-carbon economy.

- The broader perspective of REDD+ finance also includes understanding and addressing the economic and financial drivers that currently contribute to deforestation, as well as assessing the effect of (changing) deforestation rates on gross domestic product (GDP) in order to build a ‘government and business case’ to transition to a Green Economy.

- It is important to distinguish between funding and finance in REDD+.

- The primary focus of the UN-REDD Programme is to successfully support partner countries to achieve all elements of REDD+ readiness to enable them to move to implementation and ultimately for developing countries to receive results-based finance/payments.

WHAT FURTHER QUESTIONS DO YOU HAVE ABOUT THIS TOPIC?