

Carbon Footprint Tracker

Phase 3: Data Modelling & Relationships

Step 1: Add Fields

On Carbon_Emission__c

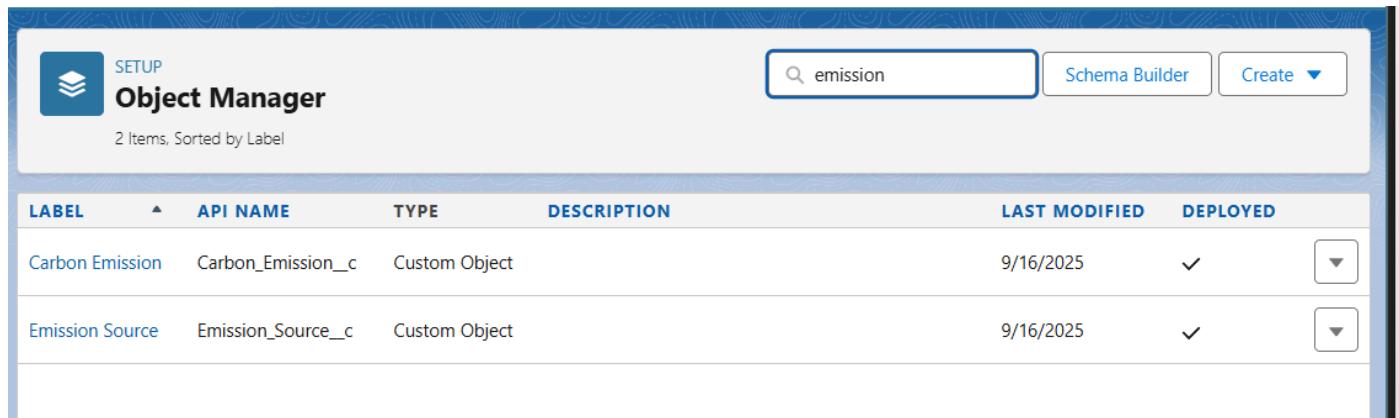
Path: Setup → Object Manager → Carbon_Emission__c → Fields & Relationships → New

Field Name	Data Type	Notes / Relationship
Amount__c	Number	Total emission amount
Date__c	Date	Date of emission
Source__c	Lookup / Master-Detail	Lookup to Emission_Source__c (If you want cascade delete/sharing, use Master-Detail)

On Emission_Source__c

Path: Setup → Object Manager → Emission_Source__c → Fields & Relationships → New

Field Name	Data Type	Notes
Type__c	Picklist	Values: "Direct", "Indirect" (or customizable)
Description__c	Text Area	Optional details about the emission source



The screenshot shows the Salesforce Object Manager interface. At the top, there's a header with 'SETUP' and 'Object Manager'. Below it is a search bar containing 'emission' and buttons for 'Schema Builder' and 'Create'. The main area displays a table with two rows:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Carbon Emission	Carbon_Emission__c	Custom Object		9/16/2025	✓
Emission Source	Emission_Source__c	Custom Object		9/16/2025	✓

Step 2: Create Record Types

For Carbon_Emission__c

Path: Object Manager → Carbon_Emission__c → Record Types → New

- Name: Carbon_Emission_RT
- Assign it to profiles (e.g., Carbon_Tracker_User).
- Optionally link custom Page Layouts.

For Emission_Source__c (Optional):

- Create record types if you want multiple classifications of emission sources.

Record Type
Carbon_Emission_RT

Help for this Page 

[« Back to Custom Object: Carbon Emission](#)

Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

[Edit](#)

Record Type Label	Carbon_Emission_RT	Active	<input checked="" type="checkbox"/>
Record Type Name	Carbon_Emission_RT		
Namespace Prefix			
Description	Record type for carbon emissions		
Created By	Vraddhi Valecha , 9/17/2025, 10:56 AM	Modified By	Vraddhi Valecha , 9/17/2025, 10:56 AM

Record Type
Emission_Source_RT

Help for this Page 

[« Back to Custom Object: Emission Source](#)

Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

[Edit](#)

Record Type Label	Emission_Source_RT	Active	<input checked="" type="checkbox"/>
Record Type Name	Emission_Source_RT		
Namespace Prefix			
Description	Record type for emission sources		
Created By	Vraddhi Valecha , 9/17/2025, 10:58 AM	Modified By	Vraddhi Valecha , 9/17/2025, 10:58 AM

Picklists Available for Editing

Picklists Available for Editing Help 

Action	Field	Modified Date
Edit	Category	9/17/2025, 10:58 AM

Step 3: Page Layouts

For Carbon_Emission__c

Path: *Object Manager* → *Carbon_Emission__c* → *Page Layouts* → *New*

- Drag fields: Amount__c, Date__c, Source__c.
- Include related lists (if junction objects are added later).

Compact Layout (for highlights panel & mobile):

- Show essential fields: Amount, Date, Source.

For Emission_Source__c

Path: *Object Manager* → *Emission_Source__c* → *Page Layouts* → *New*

- Drag fields: Type__c, Description__c.
- Compact layout highlights: Name, Type.

Page Layouts		
2 Items, Sorted by Page Layout Name		
PAGE LAYOUT NAME...	CREATED BY	MODIFIED BY
Carbon Emission Layout	Vraddhi Valecha, 9/16/2025, 10:43 AM	Vraddhi Valecha, 9/17/2025, 3:33 AM
Carbon_Emission_RT_Layout	Vraddhi Valecha, 9/17/2025, 11:01 AM	Vraddhi Valecha, 9/17/2025, 11:14 AM

Step 4: Relationships

- Lookup Relationship:
 - Carbon_Emission__c.Source__c → Emission_Source__c.
 - Source is optional; emissions can exist without a source.
- Master-Detail Relationship (alternative):
 - Use if you want cascade delete and ownership/sharing to roll up from Emission_Source__c.
- Many-to-Many Relationship (if required):
 - Create a junction object: Emission_Link__c.
 - Add two Master-Detail fields: one to Carbon_Emission__c, one to Emission_Source__c.
 - This allows multiple emissions to link to multiple sources.

SETUP > OBJECT MANAGER					
Carbon Emission					
Details	Fields & Relationships				
Fields & Relationships	9 Items, Sorted by Field Label				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Amount (CO ₂ e)	Amount__c	Number(16, 2)			
Carbon Emission	Carbon_Emission__c	Lookup(Carbon Emission)	✓		
Created By	CreatedBy	Lookup(User)			
Date	Date__c	Date			
Emission Name	Name	Text(80)	✓		
Emission Source	Source__c	Lookup(Emission Source)	✓		
Last Modified By	LastModifiedBy	Lookup(User)			
Owner	OwnerId	Lookup(User,Group)	✓		
Record Type	RecordTypeId	Record Type	✓		

SETUP > OBJECT MANAGER

Emission Source

Details		Fields & Relationships				
		6 Items, Sorted by Field Label				
		FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Fields & Relationships		Category	Category_c	Picklist		<input checked="" type="checkbox"/>
Page Layouts		Created By	CreatedById	Lookup(User)		<input checked="" type="checkbox"/>
Lightning Record Pages		Last Modified By	LastModifiedById	Lookup(User)		<input checked="" type="checkbox"/>
Buttons, Links, and Actions		Owner	OwnerId	Lookup(User,Group)		<input checked="" type="checkbox"/>
Compact Layouts		Record Type	RecordTypeId	Record Type		<input checked="" type="checkbox"/>
Field Sets		Source Name	Name	Text(80)		<input checked="" type="checkbox"/>
Object Limits						<input checked="" type="checkbox"/>
Record Types						<input checked="" type="checkbox"/>
Related Lookup Filters						<input checked="" type="checkbox"/>

Step 5: Sharing Rules

Path: Setup → Sharing Settings → Carbon_Emission__c → New

- Criteria-based Sharing Rule: Share records based on field values (e.g., emissions > 1000).
- Owner-based Sharing Rule: Share records owned by specific roles or groups.
- Assign to roles, public groups, or territories for better access control.

SETUP > OBJECT MANAGER

Carbon Emission

Details		Fields & Relationships				
		9 Items, Sorted by Field Label				
Fields & Relationships		FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Page Layouts		Amount (CO ₂ e)	Amount_c	Number(16, 2)		<input checked="" type="checkbox"/>
Lightning Record Pages		Carbon Emission	Carbon_Emission_c	Lookup(Carbon Emission)		<input checked="" type="checkbox"/>
Buttons, Links, and Actions		Created By	CreatedById	Lookup(User)		<input checked="" type="checkbox"/>
Compact Layouts		Date	Date_c	Date		<input checked="" type="checkbox"/>
Field Sets		Emission Name	Name	Text(80)		<input checked="" type="checkbox"/>
Object Limits		Emission Source	Source_c	Lookup(Emission Source)		<input checked="" type="checkbox"/>
Record Types		Last Modified By	LastModifiedById	Lookup(User)		<input checked="" type="checkbox"/>
Related Lookup Filters		Record Type	RecordTypeId	Record Type		<input checked="" type="checkbox"/>
Restriction Rules		Source	Source_c_c	Master-Detail(Emission Source)		<input checked="" type="checkbox"/>
Scoping Rules						<input checked="" type="checkbox"/>
Object Access						<input checked="" type="checkbox"/>
Triggers						<input checked="" type="checkbox"/>
Flow Triggers						<input checked="" type="checkbox"/>
Validation Rules						<input checked="" type="checkbox"/>
Conditional Field Formatting						<input checked="" type="checkbox"/>

Step 6: Schema Builder

- Opened via **Setup → Schema Builder**.
- Selected custom objects **Carbon_Emission__c** and **Emission_Source__c** from the left panel.
- Visualized fields and relationships on the canvas.

Key Fields & Relationships:

- **Carbon_Emission__c**: Amount__c, Date__c, Source__c (Lookup/Master-Detail → Emission_Source__c).
- **Emission_Source__c**: Type__c (Picklist), Description__c (Text Area).
- Relationship line shows how Carbon Emissions link to Emission Sources.

Benefits:

- Quick visual of data model.
- Easy to explain and validate object relationships.

