

Rapid Response

Waste to Taste
For Communities

SDG 15 - (target 15.9)

Art and Design, Biology, Chemistry,
Community Development, Folklore,
Nutrition, Project Development
Spatial Planning,



4 QUALITY
EDUCATION



11 SUSTAINABLE CITIES
AND COMMUNITIES



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Programme includes

- **01 Introduction to Design Thinking and ROLE methods**
- **02 ROLE 1 – Observation and Boundaries**
- **03 ROLE 2 - Boundaries and Resources**
- **04 Evaluation and Expertise**
- **05 – 10 Design**

13 CLIMATE
ACTION



15 LIFE
ON LAND





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Module Description

The Rapid Response Waste to Taste, the course will introduce principles of the Sustainable Development Goals, SDG 11 - Sustainable Cities, SDG 15- Life on Land from a local perspective. Over 10 weeks the course will use the permaCultural resilience (pCr) **ROLE** methods, to facilitate a process of developing innovative solutions to local concerns; collaboratively and systemically.

The sessions lead participants through a process of design thinking to create an edible-medicinal trail. Participants will develop an awareness of design thinking in a practical way and encourage a re-consideration of the location for opportunities to re-imagine and repurpose wasted, underused or undervalued space to support native species and biodiversity.

Overarching Aims

The participants will

- develop an awareness of Design Thinking and the pCr **ROLE** methods in a practical way
- develop problem solving skills
- develop practical skills within project development and management / group work skills
- develop transferable skills incl. communication, critical thinking, collaboration
- share local knowledge in an engaging way

01 Introduction to Design Thinking and **ROLE** methods

Working in groups participants will...

- learn the 5 stages of Design Thinking and the pCr **ROLE** methods
- undertake a transect map looking at wasted or undervalued space in the location
- Complete a pCr audit during the mapping

02 Role 2 Observation - **EMPATHY**

Working in groups participants will...

- begin to consider sites that could be used as part of a local trail
- undertake a stakeholder and policy mapping
- explore the local edible-medicinal plants that already exist in the area

13 CLIMATE
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03 ROLE 3 Boundaries and Resources 2, DEFINE

Participants will...

- develop their understanding of the site and begin to explore some ideas for design
- explore potential users of the site through an empathy map and user profile exercise
- consider and analyse examples to inspire ideas
- research local expertise that could contribute local knowledge to the project

04 ROLE 4 Evaluation and Expertise

Participants will...

- begin to evaluate the information they have gathered to date
- if possible invite local expertise to contribute to the project
- complete a life cycle analysis
- complete a vital signs project development matrix

05 – 10 ROLE 5 DESIGN: IDEATE, PROTOTYPE AND TEST

Participants will...

- define more closely the 'problems' of the site
- undertake a remix exercise to ideate and develop ideas further
- create prototypes and vision boards to present their ideas
- work collaboratively with peers to plan, design, sketch and improve a local site
- will consider and develop and implementation and maintenance strategy

Outline of lessons / time

The programme is presented over 10 x2 hour sessions and delivery can be adapted to suit the group and location. There are 10, 120 minute sessions in the toolkit, that can be run in a variety of formats;

- Weekly
- Five, half day sessions that are run over a week, a fortnight or a month, with tasks in between.
- Online and bespoke delivery / facilitated options can also be developed and delivered



Session 01

Introduction to Design Thinking and ROLE Methods

Session Time
120 minutes

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Session 01: Introduction to Design Thinking and the pCr role.

Participants will be introduced to the basic principles of design thinking and the ROLE methods through practical tasks and an initial site visit.

Participants will begin to use some of the methods to map the area and develop a more complex understanding of a 'local' contexts. Working in small groups participants will undertake a transect map and pCr audit to initiate and understanding of the location and identify opportunities for siting their projects.

Participants will be encouraged to document the process as part of the information they will use for the design process. Using digital and analogue imagery participants will build up a comprehensive understanding of the context in which the sites sit and they are working e.g. cultural, historical, economic, physical etc.

Working in small groups participants will...

- explore the 5 stages of Design Thinking and the pCr ROLE methods
- undertake a transect map looking at wasted or undervalued space in the location
- complete a pCr audit during the transect mapping
- discuss changed understanding of spaces and early stage observations

Resources

- Project Concept
- Introduction to Design Thinking
- ROLE METHOD

- The pCr OBREDIM guide
- OBREDIM Audit Part 1
- Vacant / Undervalued space OBR

- Transect mapping worksheet and resource

13 CLIMATE ACTION



15 LIFE ON LAND



Session 01

STAGE 1

30 Minutes

Resources

ROLE Method
Design Thinking worksheet

INTRODUCTION TO DESIGN THINKING AND ROLE

1. Introduce the project concept and an overview of the programme.
2. Present the 4 stage ROLE method and explain the rationale behind the pCr approach
3. Introduce the Design Thinking concept and its 5 stages using the video and the diagram on the worksheet.

STAGE 2

80 Minutes

Resources

- Notebooks
- Pen/Pencil
- Paper
- OBREDIM Worksheet
- Transect Map worksheet

Transect Mapping and OBREDIM Audit stage 1

1. Introduce the stages of the OBREDIM Audit and the worksheet that will be used
2. Introduce the transect map concept and the task to insure the participants understand the task and feel confident in the task. Complete the work sheet as a group
3. Divide participants into small groups (2-4) depending on numbers
4. Have the groups decide on the routes they will document on their maps and who will do the map and who will complete the stage 1 audit
5. Participants will spend 40 minutes completing the mapping and stage 1 audit and return to meeting space
6. Have a brief discussion about the activity

5 Minutes

STAGE 3

Reflective Practice

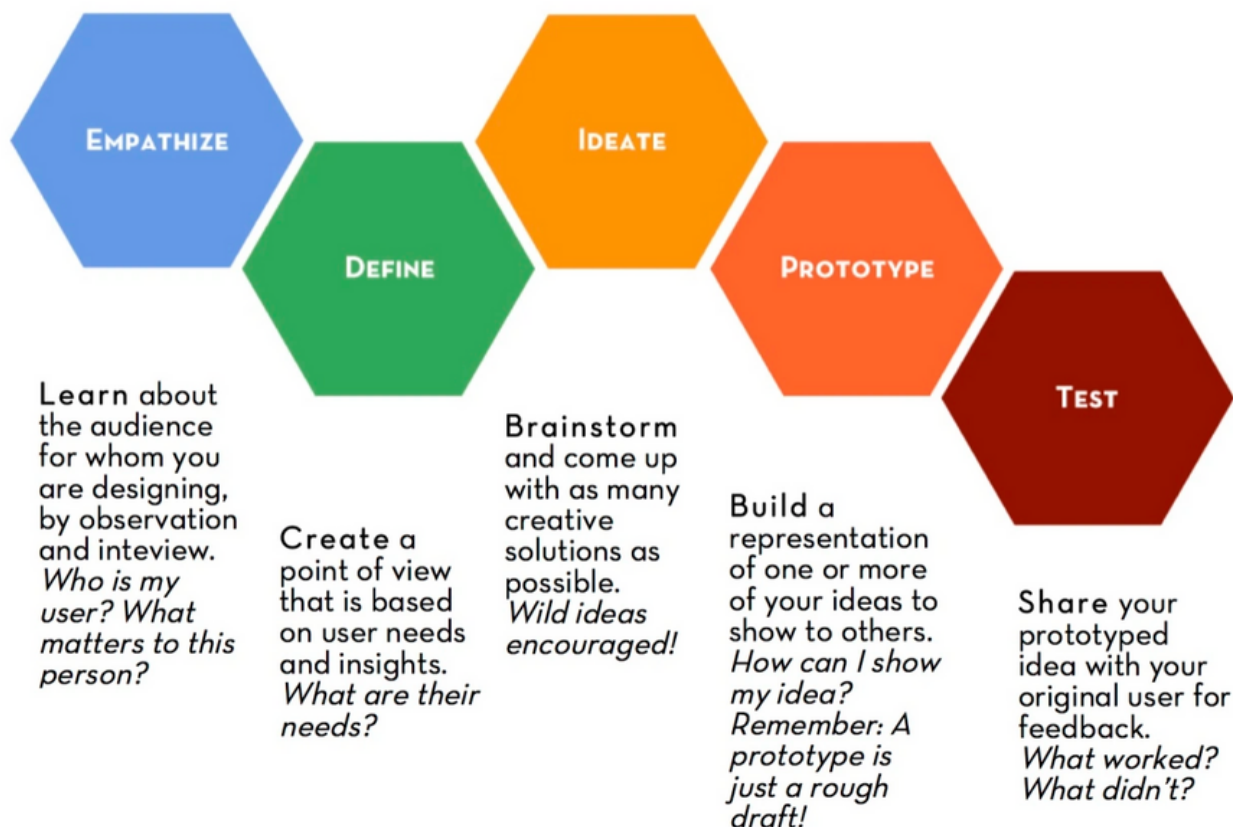
1. Give learners five minutes to reflect on the lesson in their notebooks, using the following prompts;
 - Three things they feel they have learnt from the lesson or tasks
 - Two things they found the most interesting and would like to learn more about
 - One piece of feedback on the lesson and the tasks



WHAT IS DESIGN THINKING?



The 5 stages of Design Thinking:





A Transect – is a line following a route along which a survey or observations are made.

An urban transect, usually following a street or several streets, may show changes in land use, the nature of buildings such as houses and shops, or features such as schools, churches, community centres, and parks.

A rural transect might follow a road, section line, or stream, and show the kinds of crops in adjoining fields, farm buildings, vegetation, or changing features along a riverbank.

Have a look at the following four transect maps

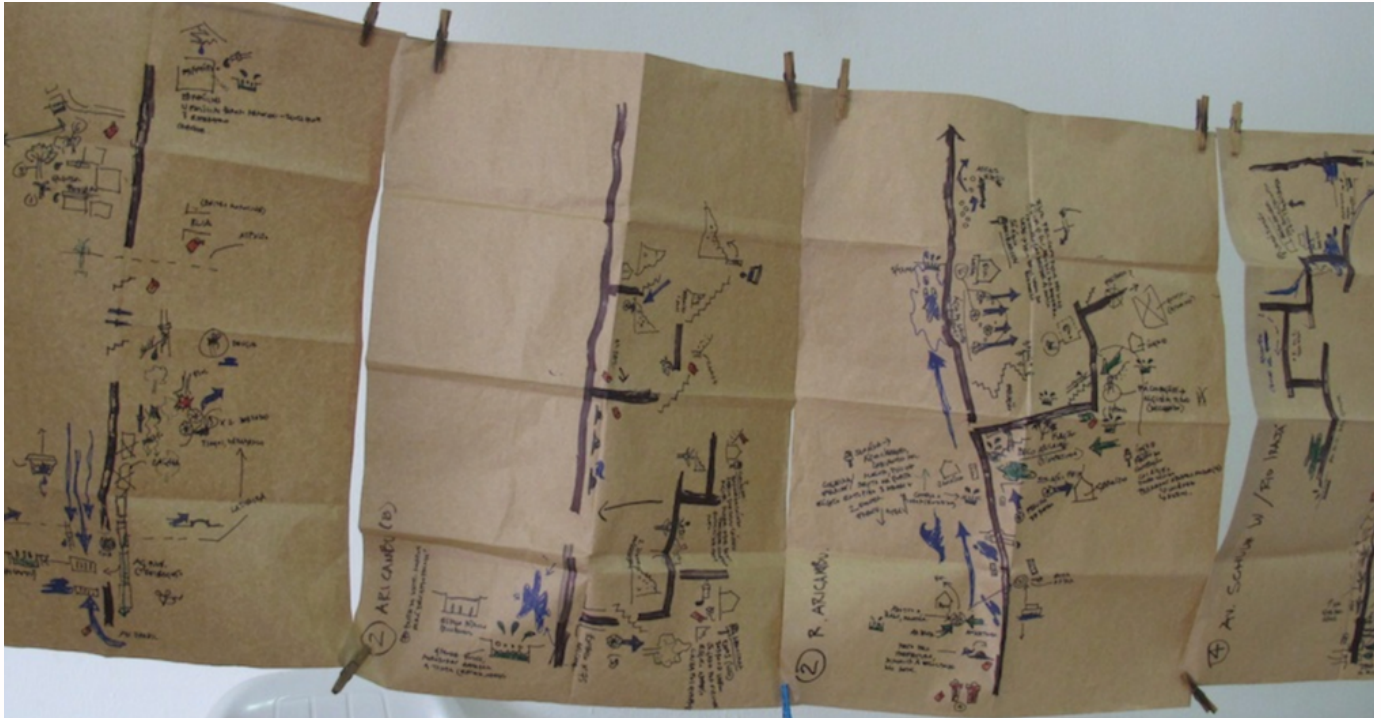
1. What sort of settlement type are the – Urban, Peri-urban (Suburban) or Rural?
2. Give reasons for the settlement type you have chosen for each one
3. What is being observed in each one?
4. What do you notice about the different styles?
- 5.5. Can you name some of the things they have chosen to
6. observe – why might this be useful?



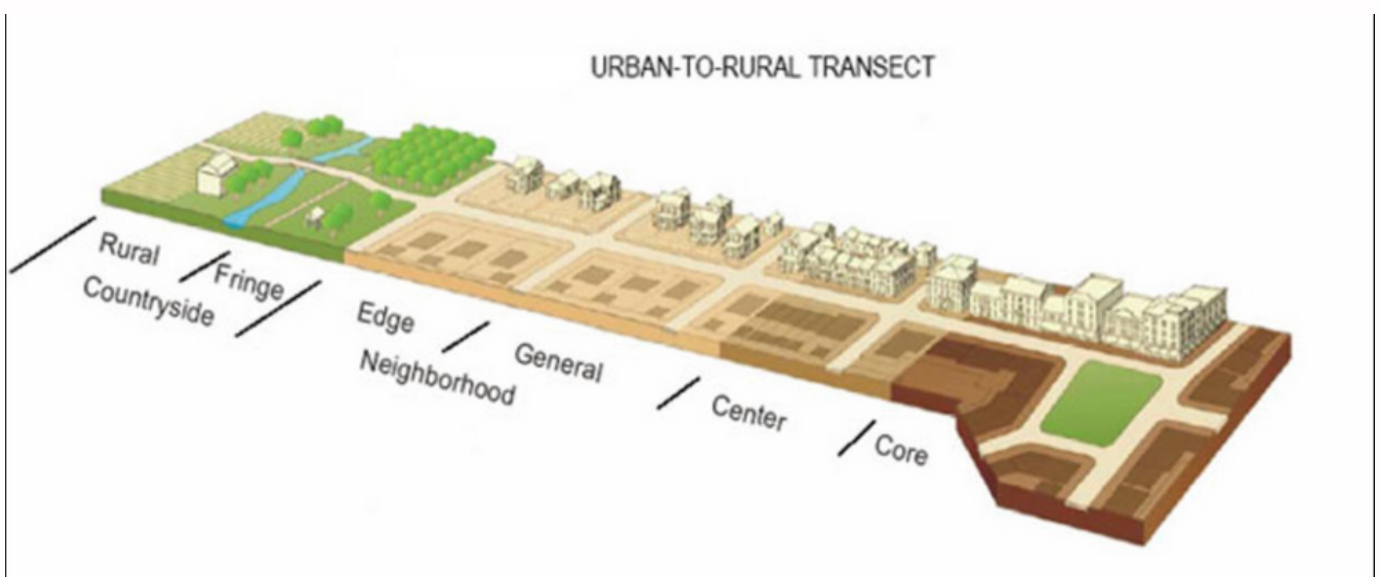


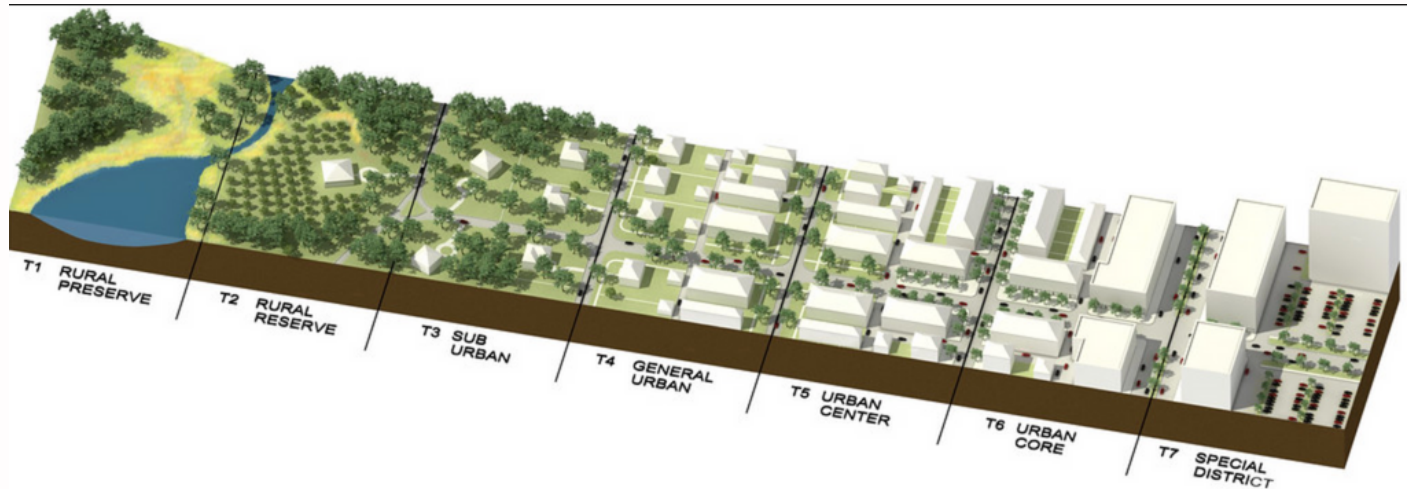
NOW FOCUS ON THESE 2 MAPS

Look closely at the following two maps, look at how they have been created. Consider the style, the details to answer the next 2 questions.



1. What do you notice about the differences between these two maps?
2. How are they categorising their observations visually – buildings, activities, landscapes?





You are going to undertake a transect map - a line following a route along which you will make observations.

Transect Mapping

- A transect walk as a 'walking interview' <https://www.youtube.com/watch?v=do7Nz1GOMqk>
 - Transect Map Geo-Skills <https://www.youtube.com/watch?v=r399su77UJs>
1. If the weather is good - select a route through your location - this can be divided across the participant groups with different groups taking different routes to map the location.
 2. If the weather is bad use Google maps
 3. Decide as a group what observations will you make along your route - trees, shrubs, different surfaces, functions, possible electricity or utility cables, infrastructure
 4. You will spend approx. 45 minutes undertaking the transect map.
 5. Part of each group will simultaneously begin the ROLE OBREDIM audit.
 6. A short discussion of the process and maps will occur at the end of the session and reused in session 4. This information will form the basis of the extended evaluation process in session 4

ROLE - OBREDIM 1

Vacant / Undervalued Space

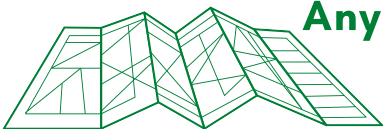


● Observation

Observe all you can on the walk

- Note the different areas, wild, planted, managed
- Note details like proximity to buildings, structures or plants?
- Note sunny and shady areas, can you tell the direction of the wind?
- Are there any birds or other animals?
- How are different areas being used?
- Are there areas that need to be left alone or you need to think about?
- Do you need sheltered areas?
- What else is needed e.g. signs, lighting?
- What materials can or might you use?

Any other observations?



● Boundaries

- What do you need to know about growing plants or food?
- Who might be using the school grounds or the greenway - what needs might they have?
- What materials can you use?
- Have you spoke to any potential users?
- Are there any things that people don't want? How do you know?

● Resources

- Do you know anyone who grows plants or food that you could ask?
- Can you think of other resources that might be useful?
- Can you think of individuals or organisations that could help?
- Where might you find information about local plants and ideas for planning the greenway?

ROLE - OBREDIM 1

Vacant / Undervalued Space



● Observation Area A

● Boundaries

● Resources

● Observation Area B

● Boundaries

● Resources

● Observation Area C

● Boundaries

● Resources

ROLE - OBREDIM 1

Vacant / Undervalued Space



● What's the Problem - A

● Empathy A, Step into the problem

● Possible ideas / Solutions:

● What's the Problem - B

● Empathy B, Step into the problem

● Possible ideas / Solutions:

● What's the Problem - C

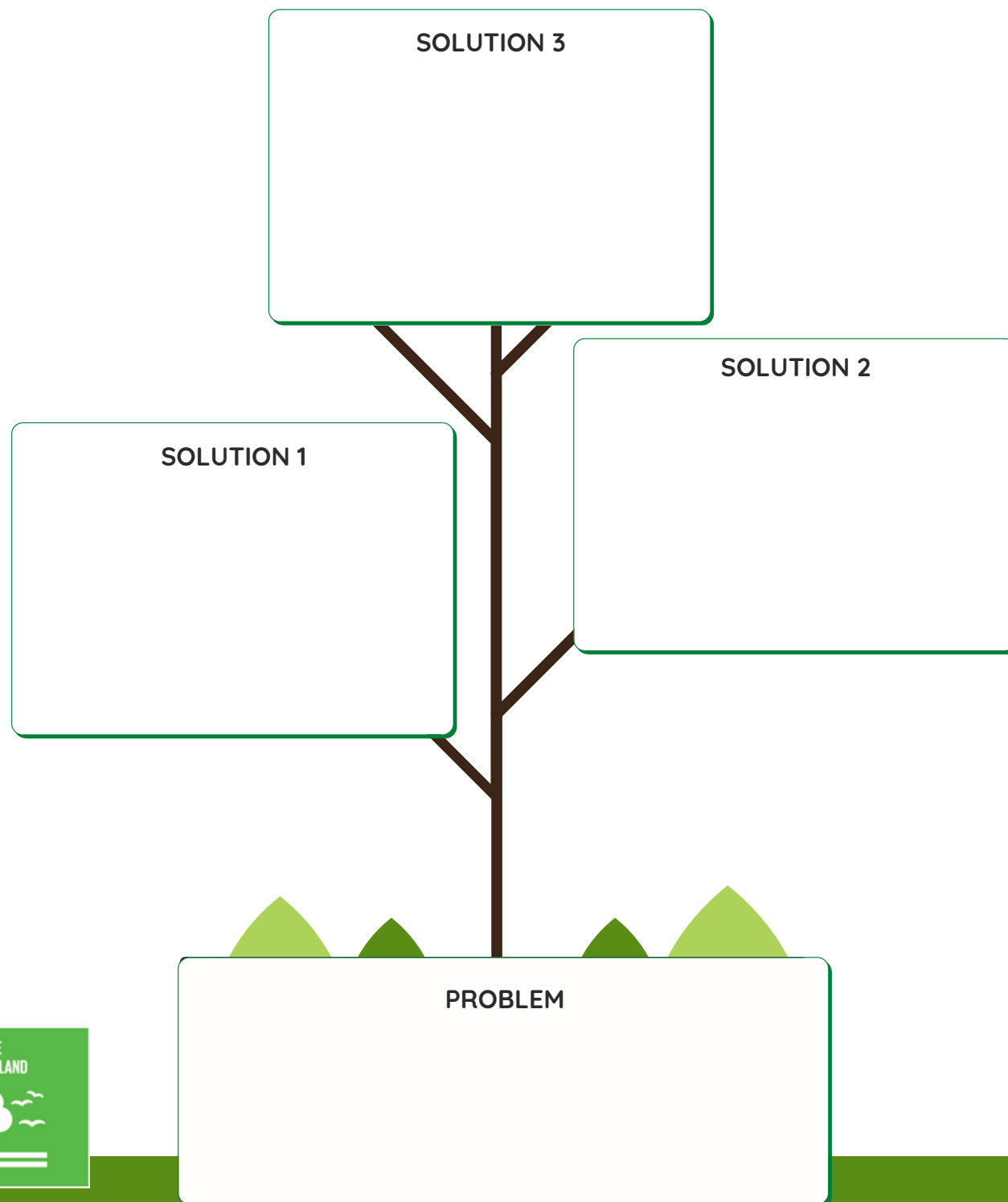
● Empathy B, Step into the problem

● Possible ideas / Solutions:

PROBLEM SOLVING TREE

Find out different ways to solve a problem.
Pick the best one.

I choose solution number _____
because _____





Session 02

Introduction to Design Thinking and ROLE Methods

Session Time

120 Minutes

SDG 15 - (target 15.9)

Art and Design, Biology, Chemistry, Community Development, Folklore, Nutrition, Project Development Spatial Planning,



Session 02: ROLE 2 Observation and Empathy

This session includes connected outdoor and indoor practical activities, which develop a deeper awareness of the context in which they are working.

Participants will select one of the potential sites to explore in the session using the pCr audit and the zoning map.

The session will begin with some short observation exercises on site to develop a close association and Begin to explore physical and social aspects of the sight Including use, relational aspects and physical environment.

Participants will be introduced to design methods from ROLE and concepts from Design Thinking. The session includes 5 practical exercises that help to Immerse the participants in site and develop skills in preparation for sessions 5 – 10.

Working together participants will...

- undertake on-site observation exercises at a test site
 - visual maps
 - perspective maps
 - audio maps
- develop a stakeholder map for the trail using the zoning map
- develop empathy maps for the test site

Resources

- 5 Devised activities
- User empathy map
- Video - empathise <https://youtu.be/q654-kmF3Pc>
- Zoning map

25 Minutes

Resources

- Notebooks
- Pens / Pencils to draw
- make notes
- Camera

Rapid response - Visual Observations

1. Explain and if necessary, model activity

- Ask participants to draw a circle on a page
- Make a circle with their non-writing hand and
- hold it up to their eye – like a telescope
- Explain that participants will have 3 minutes to fill in the circle on the page preferably by drawing but can use words

Show North direction and lead student's through North stage of the activity by prompting / asking using questions.

Look and look again - explain that if they see something draw / note it down to keep looking at it and recording information e.g. colour, shapes and forms, any boundaries, whats nearby describe it.

Lead students through the other directions 'SWE' decreasing input from teacher on each direction - this is preparation for activity 2

Discuss activity:

- What did they notice?
- Did anything surprise them about the task?
- Did they experience 'the more you look the more you see'?

20 Minutes

STAGE 2

Activity 2 Perspective Map

Return to the indoor space used for the sessions.

1. Participants will now select a focal point on an aspect of the site and standing no further than approx. 60cm / 2ft spend 7 1/2 mins capturing as much information about that point of focus as possible.
2. Participants will repeat the same exercise from a distance of 2m / 6ft from the focal point for 7 1/2 minutes
3. Participants will discuss what they noticed, the differences in their drawings and the experience and how experimenting with perspective might be applied within their designs.

13 CLIMATE ACTION



15 LIFE ON LAND



Session 02

STAGE 3

15 Minutes

Resources

Activity 2 Personal Audio Map

1. Find a space to stand still close your eyes if it helps you focus / pay attention and close your eyes – begin to listen to what sounds you can hear.
2. You are the centre of the page – place yourself in the centre of the map and begin to place the audio around you.
3. Stay still for 5 minutes and start to listen to what is making sound around you
4. Begin to mark the sounds around - students can draw, write or colour the sounds you can hear around them.
 - Where are they coming from?
 - Pick out sounds we might hear around us, birds, sea, cars others

Explain these techniques can be adapted for other senses Importance of attention and observation. Discuss the Importance of including sensory aspects to their designs and how they might explore this in their designs.

55 Minutes

Resources

- Zone Map
- Empathy video
- Empathy Map template
- Reflective practice exercise

STAGE 4

Activity 2 Mapping and User Experience

1. Using the Zone Map template participants will collectively develop a stakeholder map for the trail. This will consider people, policy and resources.

This process begins the planning for the implementation phase and will also feed into the design phase.

2. Working collaboratively the group will select one of the stakeholders identified in the stakeholder mapping and use this to complete an empathy map.
3. Watch Empathize <https://youtu.be/q654-kmF3Pc>
4. Participants will practice this skill individually by selecting a different stakeholder and begin to develop an empathy map for them.

Reflective Exercise

Close the lesson with the 3-2-1 reflective exercise using post-its – see additional support sheet in programme introduction.

13 CLIMATE ACTION



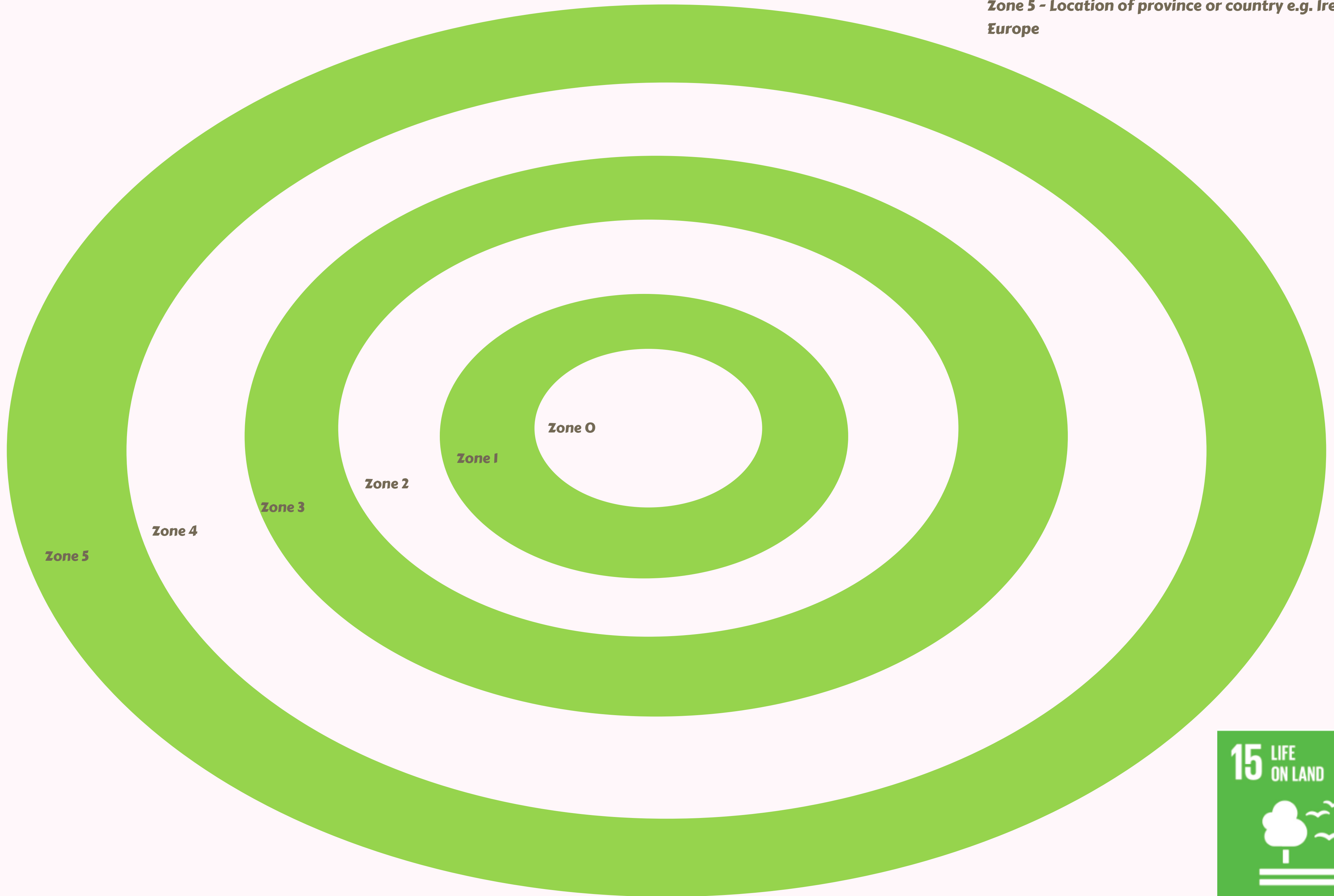
15 LIFE ON LAND



ZONE MAP EXERCISE

A zone map allows us to start from ourselves Zone 0 (our project or our town) and include other people, places or things in relationship to ourselves Zone 1 - 5

- Zone 0** - the self, the project
- Zone 1** - Location of project e.g. school or town
- Zone 2** - Location of school or town
- Zone 3** - Location of town e.g. Iveragh, Kerry
- Zone 4** - Location of county e.g. Munster or Ireland
- Zone 5** - Location of province or country e.g. Ireland or Europe





Session 03

Introduction to Design Thinking and ROLE Methods

Session Time

120 Minutes

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Session 03: ROLE 3 Boundaries, Resources and Defining the Problem.

In this session participants will begin to define the problem, initially defined as designing the linked nodes on the trail using the vacant and undervalued spaces within their location.

Participants will begin to explore the boundaries; the limits and edges of the context in which they are working. The resources and opportunities that may be available using the stakeholder map from the last session. Part of this process involves policy analysis and how to utilise this when applying for funding.

Participants will also explore a life cycle analysis of the potential trail using the zoning map template to assess the inputs, processes and outputs of the trail, enabling them to make decisions later in the design process.

Working together participants will...

- return to the OBREDIM audit to consider limitations and resources available
- explore the life cycle analysis using the zoning map
- collate ownership details of the potential sites identified from previous sessions
- collate local expertise that could contribute local knowledge to the project
- consider relevant policies and how to utilise this for implementation and maintenance phase
- initiate a vital signs matrix

Resources

- OBREDIM template
- Zoning map with LCA
- Policy analysis resource
- Vital Signs Matrix

13 CLIMATE ACTION










15 LIFE ON LAND



OBREDIM AND VITAL SIGNS MATRIX

Use the following sheets to begin to assess the local context in preparation for the edible medicinal trail project



OBREDIM AUDIT		Activity:	Date:
Audit Phase		Details reference: What to look for and record.	
	O – Observation Phase 1	Survey all local 'organisms' e.g. organisations, stakeholders, businesses, arts and cultural orgs, community groups, charities, people, animals, vegetation, socio-cultural landscape, history, news / media, politics. Try to create as full a picture of the residency ecosystem.	
<p>Ways and things to observe: Patterns of growth, distribution, town layout business layout etc. Traffic flow, people motion, dead spots, flow of information, traffic people, the dynamics; social, cultural physical. Is there an impact? Does it last? Where's it start and stop.</p> <p>Natural system aspects: Weather, Sun, Water sheds, air, flora fauna animals, migration routes or diversions of water, desertification, forest,</p> <p>History – what's changed and why is there a pattern, does this have impact on the future? Communities; connections and relationships, distance/ proximity, inter-species, inter generational. What is successful? What has adapted are there any common traits?</p> <p>Are there any recognisable patterns, numerical patterns? Are their functions of these patterns? Look at textures / shapes – Draw them, photograph them, record audio, video. Use the senses; What can you see, hear, taste, smell and touch.</p>			
	B –Boundaries	<p>The edges / limits of the ecosystem; the location's geo boundaries, organisational boundaries, people's responsibilities, shared values, cross-over of aims, power dynamics. Limits to growth expansion, Laws, regulations and policies. Where do things stop and start? Are there diversity, tensions and encounters? Is there a difference between the edges and centre?</p> <p>Zoning analysis: This can highlight responsibilities, existing partnerships, focus for effort.</p>	
	R - Resources	<p>Physical and non-physical resources; Time, money, services, skills and knowledge, existing networks and partnerships, groups, what already exists and how it works (or doesn't).</p> <p>Sample Questions: Venues: what's there, what does it do, how does it function, who sponsors events. Groups: who's doing what, when and with who?</p>	
	E – Evaluation Phase 2	Begin to map a web of relations – using the info from Phase 1 and the Zoning analysis. Evaluate what exists and where the gaps are – how does info flow, notice relationships and communication. Include a SWOT / SMARTER analysis	
	D - Design	Design on paper, Becomes a map for the implementation stage or if there's an existing project in mind re-design in light of information gathered in Phase 1 and evaluation stage.	
	I – Implementation Phase 3	Implementing design: incl logistics eg timelines, production milestones, communication, fundraising, skills needed.	
	M - Maintenance	Maintaining the project and any maintenance needs or opportunities to evolve the project, handing over passwords, admin details, resource directory – anything needed to move the project forward or maintain its existence and evolve it.	

VITAL SIGNS MATRIX

Use the Vital Signs Matrix to set goals for the project and develop your indicators for success.

Below is a generic version of the vital signs matrix giving some sample indicators that could be part of a projects' indicators for success. Your project will have their own indicators specific to your context and ambitions. This can also be used for backwards mapping to set your Theory of Change - Your Input (Activities and any assumptions) Outputs, Outcomes (short, medium and long-term) and your impact

Project's Vital Signs –	Earth Care (environmental)	People Care (social)	Fair Share (economics)
Building a Micro-ecology	<ul style="list-style-type: none"> Developing a community of practice / interest and knowledge around issues of resilience, Expanding local artistic practice within the context of resilience and creative problem solving 	<ul style="list-style-type: none"> Inclusive engagement beyond from the inside out beyond bipolarity of top down bottom up approaches 'usual suspects' Upskilling of constituents through process and practice 	<ul style="list-style-type: none"> Exploration of community collaborative IP models focused around any local ideas / knowledge Creation of X artists / residents paid opportunities Potential creation of opportunities beyond the project
Strategic Intervention Tactic	<ul style="list-style-type: none"> Develop pathways of mutual understanding between local site and network Develop pathways of mutual exchange between local site and network Create localised interventions into policies around Climate Action, Enterprise and Co- Design / Sustainability 	<ul style="list-style-type: none"> Develop foundations for localised / e-centralised governance practices around Climate Action, Enterprise and Co- Design / Sustainability 	Develop foundations for localised / e-centralised governance practices around Climate Action, Enterprise



VITAL SIGNS MATRIX




Project's Vital Signs	Earth Care (environmental)	People Care (social)	Fair Share (economics)
Re-seeding local knowledge	<ul style="list-style-type: none"> • Auditing, capturing and sharing local knowledge around issues of resilience and climate • Re-applying existing knowledge within new contexts • Introducing additional climate / resilience expertise in accessible ways • Creation of peer-to-peer artistic network across 4 sites • Access to expert knowledge for the benefits of local community 	<ul style="list-style-type: none"> • Creation of an inclusive / expanded knowledge focused around circular economies / enterprise and innovation in locally meaningful ways • Validation of local knowledge within recognised field-specific disciplines and understanding and engagement with field-specific knowledge 	<ul style="list-style-type: none"> • Contribute to pilot network of arts-led coastal defence activities that can be rolled out • Creation of shared resources for replication in other test sites
Re-situating Arts and Culture	<ul style="list-style-type: none"> • Introducing local contexts to arts-led processes within the context of resilience and climate action • X events / activities presented in X contexts • Development of transdisciplinary research process and methodologies 	<ul style="list-style-type: none"> • Harnessing local creativity and innovation within the context of resilience and climate action 	<ul style="list-style-type: none"> • Development of X proof of concept models of praxis that can be replicated • Create new opportunities in coastal communities

THEORY OF CHANGE TABLE

Theory of Change - Your Input (Activities and any assumptions) Outputs, Outcomes (short, medium and long-term) and your impact.

This is a generic example which can be used to develop your project's theory of change and short, medium and long-term roadmap.



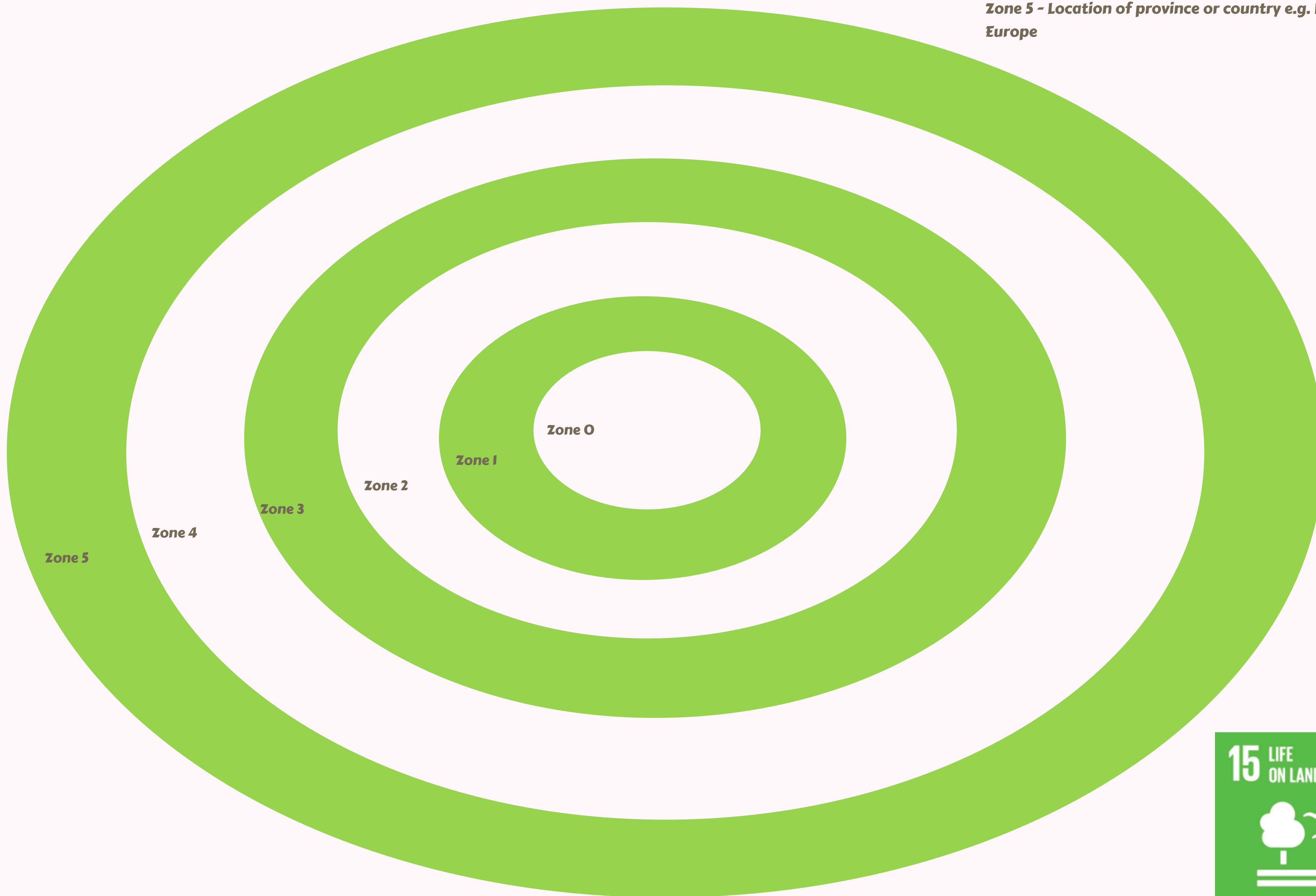
Inputs 	Outputs 	Outcomes 	Impact 
All the inputs from the organisation, community and the possibilities of the project and it's producers	Action or Deliverables Key Performance Indicators Legacy	The conditions or changes over time in an organisation, with the project's growth or participants, to achieve desired impact	The goals / change the project makes in the wider context or with participants e.g. reduction of negative issues, increase in positive aspects, increase or decrease in participants
Using the the life cycle analysis to assess inputs	Using the the life cycle analysis to assess outputs	Can be intangible aspects e.g. feelings, confidence, determination Resilience (social, environmental, economic)	Value - social, environmental, and economic within an organisation or group. This can also be assessed using standard or existing policy metrics
Finance / costs Staff / participants time Facilities / materials	What you planned to achieve with the project can be both quantitative as well as qualitative	Developing strategies Encouraging public / local debate Contributing to new policy or delivering on existing policy	Value - social, environmental and economic for participants or wider community

- Developing a Theory of Change helps to identify desired or potential long-term goals (Impact) and then work backward from the goals to identify all the conditions (outcomes) that must be in place for the goals to occur.
- This contributes to the Outcomes Framework and the actions or intervention that will lead to the desired outcomes and facilitates better planning, a better understanding of how change happens, and ultimately a contribution to longer-term goals / impact. This also makes it easier to evaluate a project.
- These long-term goals move beyond the project or programmes immediate deliverables or interventions

LIFE CYCLE ANALYSIS - INPUTS

A zone map allows us to start from ourselves Zone 0 (our project or our town) and include other people, places or things in relationship to ourselves Zone 1 - 5

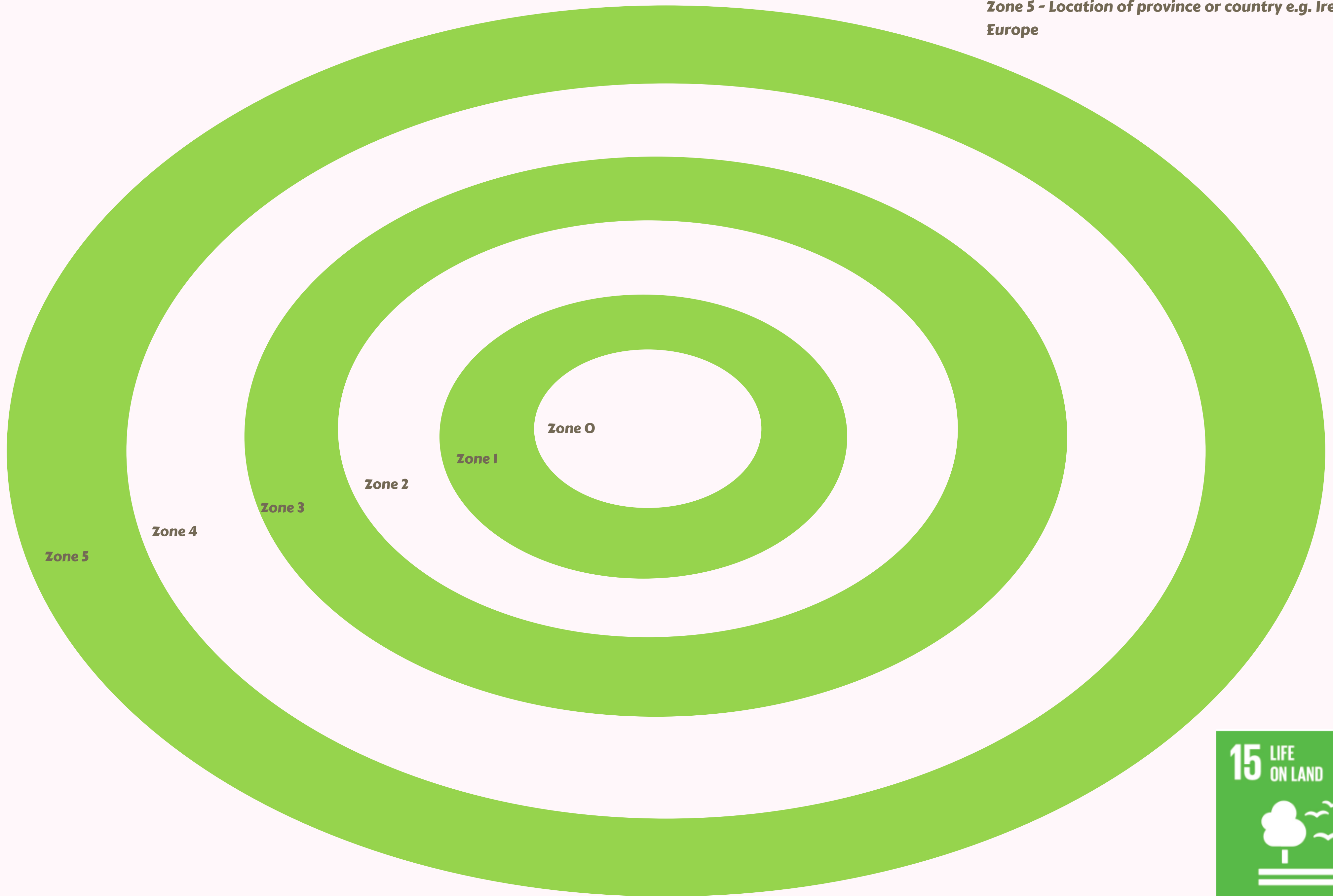
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- Zone 1 - Location of project e.g. school or town
- Zone 2 - Location of school or town
- Zone 3 - Location of town e.g. Iveragh, Kerry
- Zone 4 - Location of county e.g. Munster or Ireland
- Zone 5 - Location of province or country e.g. Ireland or Europe



LIFE CYCLE ANALYSIS – PROCESSES

A zone map allows us to start from ourselves Zone 0 (our project or our town) and include other people, places or things in relationship to ourselves Zone 1 - 5

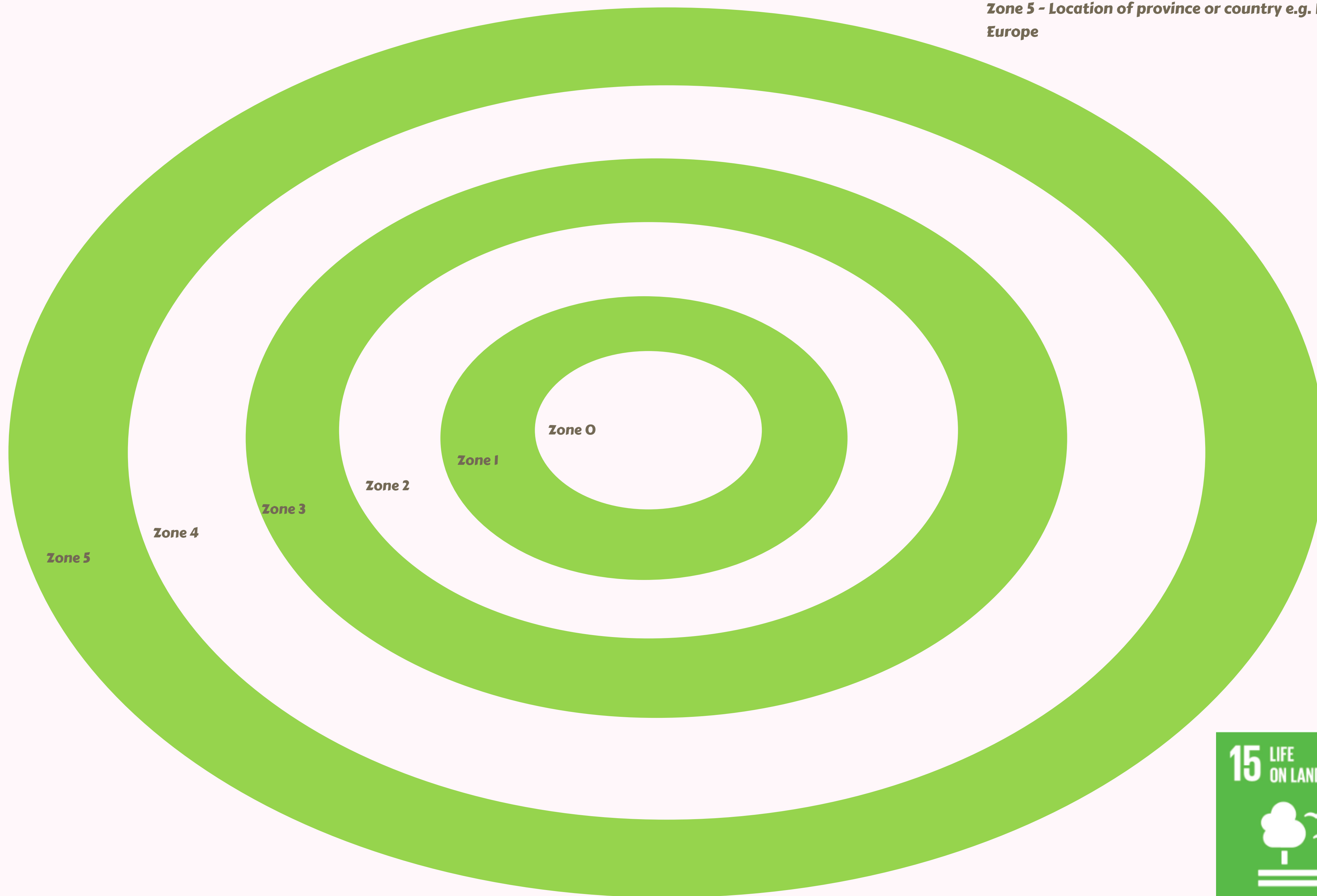
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LIFE CYCLE ANALYSIS - OUTPUTS

A zone map allows us to start from ourselves Zone 0 (our project or our town) and include other people, places or things in relationship to ourselves Zone 1 - 5

- Zone 0** - the self, the project
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Session 03

STAGE 1

60 Minutes

Resources

- Notebooks / paper
- Pens / Pencils
- OBREDIM guide template
- Life Cycle Analysis maps
- Define video

Defining the Problem: boundaries and resources

1. Begin the session with the video on stage 2 of the Design Thinking process. Define <https://youtu.be/TNAdanuvwtc>
2. Using the OBREDIM guide template, as a group work explore the limitations to the proposed project. Create a collective record of the project's boundaries.
3. Collate ownership details of the potential sites identified from the previous sessions
3. Continue exploring the project's boundaries by using the life cycle analysis maps, plotting the potential inputs, processes and outputs.
4. Using the OBREDIM guide template, as a group work with the stakeholder map from the previous session and the lifecycle analysis maps to begin to map the potential resources available to the project.
5. Finally, collate the local expertise that could contribute local knowledge to the project.

55 Minutes

STAGE 2

Resources

- Notebooks / paper
- Pens / Pencils
- Policy Analysis resource
- Vital Signs Matrix grid

Defining the Problem: Policies

1. Participants will work in groups to explore the local, national and global policy samples and worksheets to analyse their relevance for the project and what aspects are important to address within the project.
 - Local Development Plans – visit local authority website
 - Regional Assembly - Regional Spatial & Economic Strategy
 - Project Ireland 2040 - <https://npf.ie>
 - National Biodiversity Plan <https://biodiversity.chg.gov.ie>
 - National Waste Policy Plan <https://www.gov.ie/en/publication/4221c-waste-action-plan-for-a-circular-economy/>
 - National Landscape Strategy for Ireland 2015-2025 <https://www.gov.ie/en/publication/8a59b-national-landscape-strategy/>
 - National Climate Policy <https://www.gov.ie/en/policy-information/56654e-national-climate-policy/>
 - Sustainable Development Goals, the 2030 Agenda <https://sustainabledevelopment.un.org/sdgs/>
2. The results from the policy analysis will be used to develop a Vital Signs Matrix for the project
3. Complete the session with a 3-2-1 reflection

13 CLIMATE ACTION



15 LIFE ON LAND





Session 04

Introduction to Design Thinking and ROLE Methods

Session Time

120 Minutes

SDG 15 - (target 15.9)

Art and Design, Biology, Chemistry, Community Development, Folklore, Nutrition, Project Development Spatial Planning

4 QUALITY EDUCATION



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Session 04: ROLE 4 Evaluation

Participants will begin the process of reviewing the information gathered to date in advance of the five design sessions, to develop the designs for the trail's nodes.

Using the OBREDIM guide template participants will begin to pool the information gathered over the last 3 sessions and their independent work to create a shared knowledge bank.

They will then collectively assess any gaps in their knowledge about the sites and their working context e.g. permissions required, knowledge of plants, their folklore, edible-medicinal qualities, environmental needs or soil Conditions.

The second part of the session will involve a structured assessment of international linked trails and edible-medicinal projects for consideration of their content and approach.

Working together participants will...

- use the OBREDIM guide template to consider any gaps in knowledge that may need to be addressed before the design phase
- assess the selected case studies for their content and approach.

Resources

- OBREDIM template
- Selected case studies
- Structured analysis

13 CLIMATE ACTION



15 LIFE ON LAND



Session 04

STAGE 1

60 Minutes

Evaluate

1. Participants will begin to gather the information produced over the previous sessions and work together to identify gaps in their knowledge.
2. Participants will assess the following
 - their observations about the site and context
 - the boundaries within which the project has to operate
 - the limitations and resources available
3. Participants will assess the information and make a list of any information still required in advance of the design phase

55 Minutes Resources

- Pens / Pencils
- Case Studies
- Assessment sheet

STAGE 2

Evaluated: Case Studies

1. Participants will work in groups to explore the local, national and global case studies to assess the aspects of the projects that may have interest or inspire new thinking about the sites and their potential.
2. The questions are structures and will include
 - Did you like the project – yes / no why?
 - What struck you most about the project? The ambition, the diversity of approach, community involvement
 - List any aspects of interest and any elements that have inspired you.
 - Are there any elements that might work within this trail?
 - What would not work in this project?
 - Anything else that the participants note about the case studies
3. Undertake a group discussion regarding each project.
4. Encourage participants to gather any additional information about any sites or ideas they might have and bring to the next session

Reflective Exercise

1. Complete the session with a 3-2-1 reflection, refer to the session support in the module introduction for details



The Edible Garden Trail is a celebration of the myriad ways Blue Mountains residents are creating food security, saving money and the environment, while enjoying the health benefits of home grown fruit and veg.

Susanne Rix became hooked on food growing back in the 1970s when she got her first garden and began reading about permaculture. “Once you start growing your own food you begin to learn what will grow where, what plants will attract good bugs, how to companion plant, and you start to realise that all of the stuff that we get in the supermarket is probably sprayed and fertilized,”

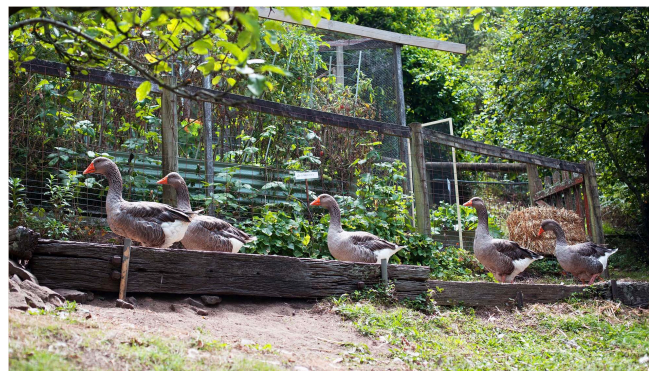
When Susanne moved to the Blue Mountains, about seven years ago, she discovered a community with a strong gardening culture but she also began to notice that many beautiful gardens were maintained at an environmental cost, with what she describes as “a Roundup border”.

Susanne set to work recruiting over 30 like-minded participants to open their gardens to the public in March 2018 and the Blue Mountains Edible Garden Trail was born. “I believe it is a world first,” she says. “I searched the internet and found garden trails, art trails and food safaris, but no edible garden trails.”

The Edible Garden Trail provides an opportunity for green thumbs and greenhorns alike to talk to other gardeners about their food growing methods and learn real life skills. Skills like how companion planting reduces pests, how mulching protects the soil and composting brings soil to life, how to save seed to maintain food security, and how keeping chooks and bees contributes to a productive edible garden. Ultimately, visitors to the Edible Garden Trail can learn how to create their own edible haven.

Many of Susanne’s generation grew up with gardens filled with fruit trees and vegetables. “We used to love watching bean seeds emerging from the soil and later eating them straight off the vine,” she recalls. “People are now wanting their children to experience the benefits of that kind of lifestyle.

‘I’m hoping this will become a global phenomenon with people all over the world opening their gardens not just for show, but for sharing intelligent, thoughtful, sustainable food production techniques’



School kitchen gardens

You can start a new garden on a small budget or improve an existing garden with some extra funds. The first thing you need to think about is your purpose and goals.

What will you do with your produce? Will you garden on a class roster system or in the playground for lunchtime garden club? Do you have garden classes with teachers or volunteers? How do you engage the community in your school garden project? Let’s help you get started. Some of the key factors you’ll need to consider are:

- Budget & funding
- Timeline
- Ongoing maintenance
- Parent involvement
- Curriculum & lesson planning
- School holidays

Missouri City Arbor Trail

The Edible Arbor Trail stretches along 2 miles of Oyster Creek Trail in Missouri City. It demonstrates trees & shrubs that produce edible fruits & nuts. The Edible Arbor Trail was created in 2010 by City Forester Paul Wierzbicki as a demonstration project for trees and shrubs that produce edible fruits & nuts in the region.

The City Forester and Parks & Recreation Department maintains the trees, while residents get to enjoy their beauty and their bounty



The trail features groves of trees and shrubs that produce edible fruits and nuts in the region, each flowering at different times throughout the year. Visitors are allowed and encouraged to pick in-season fruits and nuts as they make their way down the two-mile trail - a unique opportunity to connect people to both food and nature.

The Houston area climate is semi-tropical, making it possible to grow a wide variety of different plants; ornamental plants to fruit-bearing plants. The nearly two-mile edible trail was created in 2010 as a way to connect residents with nature.



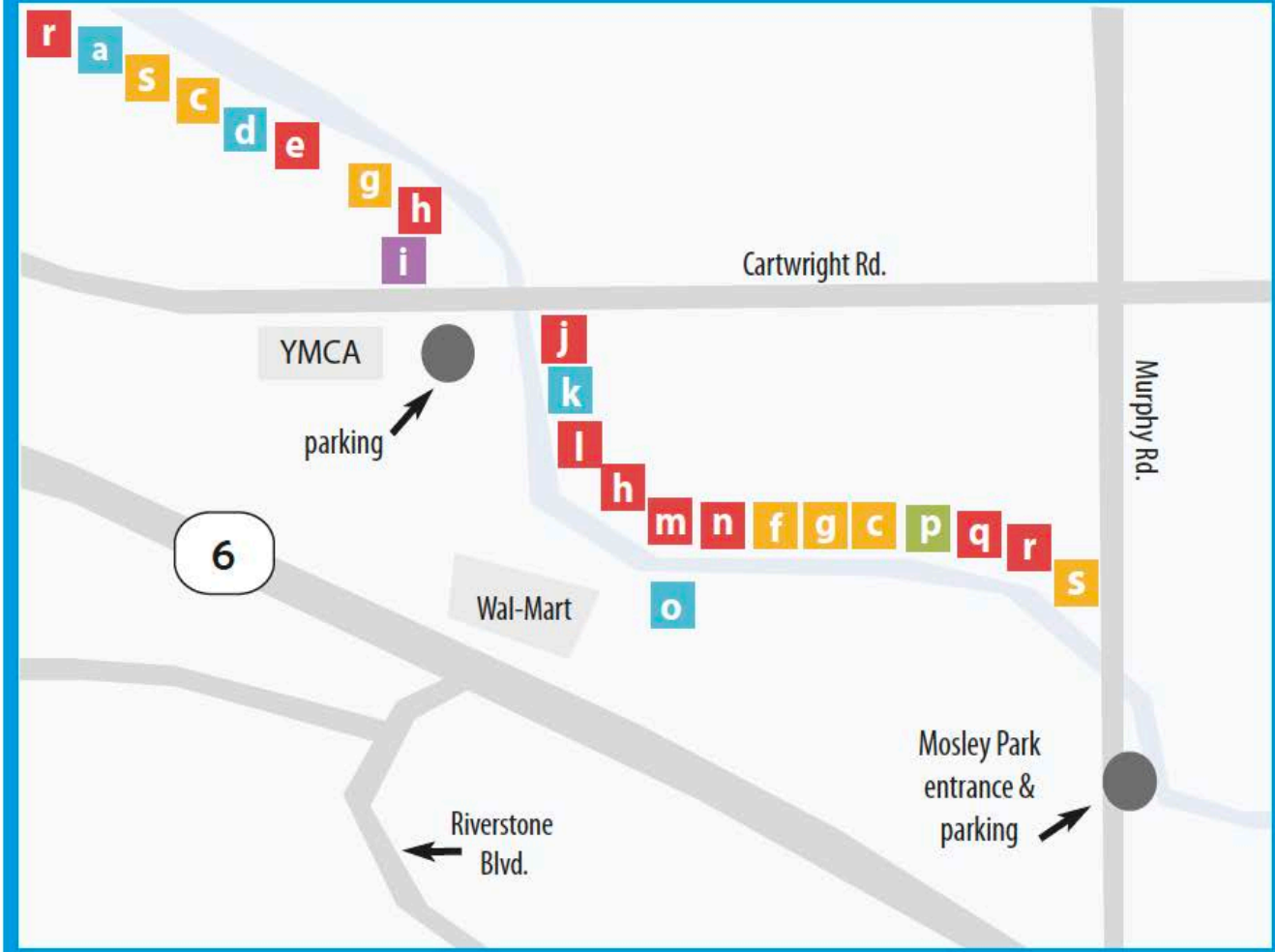
Persimmons - high in beta carotene and minerals such as sodium, magnesium, calcium and iron.

The park and trail host numerous events throughout the year tied into the environment e.g. Earth Day. This includes information about recycling, composting, insects and pollinators, water conservation and native plants. Other seasonal events tie into the trail that share skills e.g. a pickling guide and other food making.

Missouri City horticulturist Paul Wierzbicki constructed the arbor trail in 2010 by planting 50 trees with the help of community leaders and businesses. By 2015, the trail had grown to include 213 trees within 19 groves. The trail has shown that this is a quick way to connect humans with trees and their food. Each grove costs approx. \$2,000 to plant and is funded by donations from local businesses and organizations.

Although it is nearing full capacity, it is also having a positive effect on the surrounding ecosystem by providing a home for the local wildlife and increasing bird life. There are dozens of types of nuts and fruits, like plums, figs, and persimmons, which you can see on the map including when the fruits are in season.

Edible Arbor Trail, Missouri City, seasonal picking guide



Spring

p Mulberry

Year Round

i Plants for Flavor

Summer

c Pomegranate

f Pear

g Fig

s Plum

Fall

e Satsuma

h Pecan

j Olive

l Walnut

m Nut Trees

n Pineapple guava

q Jujube

r Persimmon

Winter

a Loquat

d Orange

k Naranja Lemon

o Kumquats

Cahersiveen Edible Medicinal Sculpture Trail.

The project was devised to engage community organisations to collaboratively construct a physical sculpture trail with a corresponding augmented reality trail to share the natural heritage; edible and medicinal of the local area and revitalise derelict or wasted space.

The project seeks to transform wasted or derelict space in Cahersiveen to produce edible and medicinal flora that can be used for consumption, cosmetics and textiles



Proposed trail - AR keys and locations

The project design links groups / participants with a specific site and intervention on the trail to encourage participation, ownership and creative responsibility and maintenance for their site, contribution to the project. Each intervention on the trail will be a context-responsive sculpture that integrating low maintenance native planting and Augmented Reality to share the story of natural and cultural heritage of the area.

The project design enables each group to engage with personal interests while developing and expand existing skills as well as learning new creative methods, skills and processes. Further, a complete design process including negotiating access engages the group with the qualities of a specific site; tangible and intangible e.g. prior use, ownership, its surroundings, while building their relationship with their site. It is envisaged the trail will become part of the town's representation of itself by itself as well as presenting an attractive, locally constructed narrative of the town and the culture of the Iveragh peninsula for visitors.

The project included the following activities;

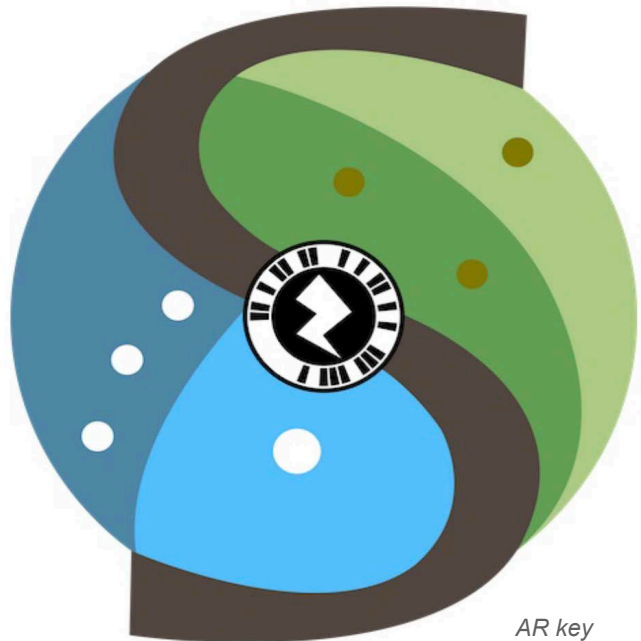
- Teen introduction to the project, the site to be worked on Garranbane Cillín and exercises in learning the pCr design methods initial training
- Nov 2018 Introduction to project, Cahersiveen Library
- March 2019 media production training sessions and pCr training, pre and post production media training (capturing and developing video / audio content, editing audio and video for AR layer
- pCr training and engagement with physical sites
- Bio-diversity Walk - Niall Hogan - Herbal Apothecary and Plant ID
- Atlantic Seaweed Seaweed Tasting menu and introduction to edible-medicinal properties

The Irish coastline is blessed with over 625 of the worlds approx 10,000 seaweed species. Many of these have been eaten and utilised since ancient times. The workshop sought to introduce the participants to a few of these species through tasting, recipes and information about their medicinal properties.

In addition artist planning and foundational work and AR layer (resource creation, media training planning and delivery, AR basic training, AR trail and keys initial development in preparation for student content and trail upload.



SMARTlab Skellig training - 30 hrs training included x6 local community trainees



AR key

The Edible Landscape Project (ELP), is a pan-European movement, based from Westport, County Mayo, Republic of Ireland.

The project 'empower[s] individuals and communities to take care of nature and protect the planet by building local food security and climate resilience'. They do this through 'education and network building and by advocating for policy change, building community consensus, and embedding practical, land-based food solutions, for the local environment'.



The Edible Landscape Project educates people about the intrinsic relationship between climate change and their food choices. The project seeks to address the impact our food choices and land management practices have on climate change.

As a CLG the project focuses on building climate-smart food systems and services and have developed climate awareness training, a podcast series, targeted education workshops e.g. tree grafting, planting and pruning, and offering a different way to think about individual and community food systems.

The Edible Landscape Project provides the tools and resources to strengthen community

resilience to the effects of climate change by teaching local groups how to grow and consume food in an environmentally sustainable way, using sustainable land management practices. These practices include improving local food security, better biodiversity management, as well as sustainable soil and water management techniques. ELP has 4 key approaches:

- Communication - Facebook, Twitter, Website
- Education & Training - (*)Workshops, Seminars, Talks, Walks
- Research - Validating ELP's work at University Level (under development)
- Partnerships - Under development.

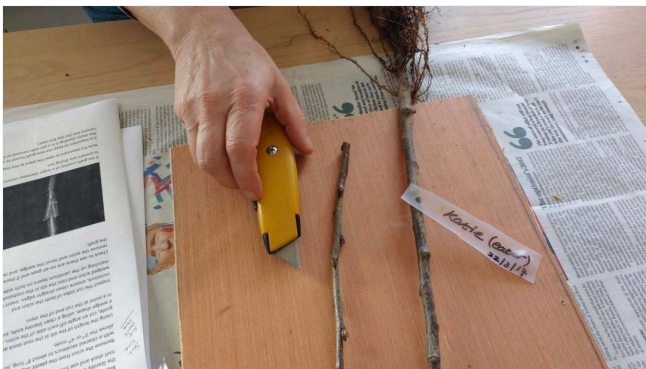
Through these 4 approaches they encourage both large scale landowners - local authorities, schools, universities and farmers - to small scale domestic gardeners, to practice Edible Landscape sustainable land management techniques.

To improve climate resilience at a community level by the following means:

- Increased local levels of **PLANTING** for climate change resilience the Agroforestry/Sustainable Horticulture ethos is adhered to which means:
- Increased planting of edible trees, shrubs and perennials locally helps organic matter build-up and soil sequestration promoting food soil bacteria/ fungi/ other soil micro-organisms
- Sustainable use of natural resources – dramatically reduce volumes of pesticides, herbicides, fertilisers so less harm to birds/ bees/ all wildlife
- The use of local and heritage plants. Teaching people to value local species of plants. These protect local biodiversity as

they support much higher levels of native species of wildlife than non-native plants. This in turn helps in the fight against climate change.

- Increased numbers of local **PEOPLE** understanding how to manage climate resilience locally by :
- Equipping participants with the necessary skills and confidence to easily and simply grow their own long-term sources of food using plants which support local biodiversity, without the need for any form of chemical pesticide, herbicide, fungicide or chemical fertiliser.
- Planting for climate change resilience and keeping **PROFITS** local:
- Teaching participants the importance of buying locally - both food and plants - to alleviate air miles in the fight against climate change. Buying local also supports the local economy and local jobs.



Apple Tree Grafting Workshop

- Influencing behavioural change to more environmentally sustainable practices
- Improved local biodiversity levels/ encouraging less food miles among the local community
- Improved local food security- equipping participants with skills needed to grow long term sources of food
- Mental and physical health improvements for participants as they team up designing and planting an edible garden
- Embedding the idea of the sustainable use of local resources - demonstrating that chemicals are not necessary to grow food
- Teaching planting techniques which can



Apple Tree Grafting Workshop

- be replicated in participants gardens improving the soil locally

Edible Landscape Project CLG is engaging in climate positive action in 2020, through:

The planting of native variety fruit and nut trees at Rice College, Westport, County Mayo. Each tree is provided to the school with organic compost, a rabbit-proof guard, strimmer-prevention measures, and ties to secure the trees against strong winds. Over the lifetime of the trees planted we will have left behind a wonderful environmental legacy in our communities, by helping to sequester approximately nine tonnes of carbon from the atmosphere at this single planting site.

Educating individuals and communities about climate change and providing practical tree planting training. Promoting opportunities for further project multiplier effects, where we ask each project participant to pay this knowledge forward by pledging to plant two more trees in their own garden, thereby multiplying the **NET POSITIVE** impact of this wonderful project exponentially.

ELP's BIA-SMART WORKSHOPS

The Edible Landscape Project (ELP) engages and informs communities AND business about the vital connection between Climate Change and Food Production through education, public engagement and the delivery of targeted projects. We can all have a positive impact on climate change by making small changes to how we source & produce our food. THE STORY OF FOOD Watch here <https://ediblelandscape.ie/index.php/the-story-of-food/>

Frits Ahlefeldt

<https://hiking.org/pages/edibletrail/>

Creating edible paths by planting edible plants and fruit trees along the trails

Frits Ahlefeldt is a journalist, concept-artist and visual storyteller, interested in developing new understandings about sustainability, thrive, biodiversity and climate change... and hiking

His research project Edible Trails is about combining hiking trails and paths with growing wild food, berries, fruits and other edible species. The project seeks to create a new kind of walking paths by combining the paths with public areas with fruits, vegetables and other species. It will both make the trails more attractive and the walking experience more varied throughout the year.

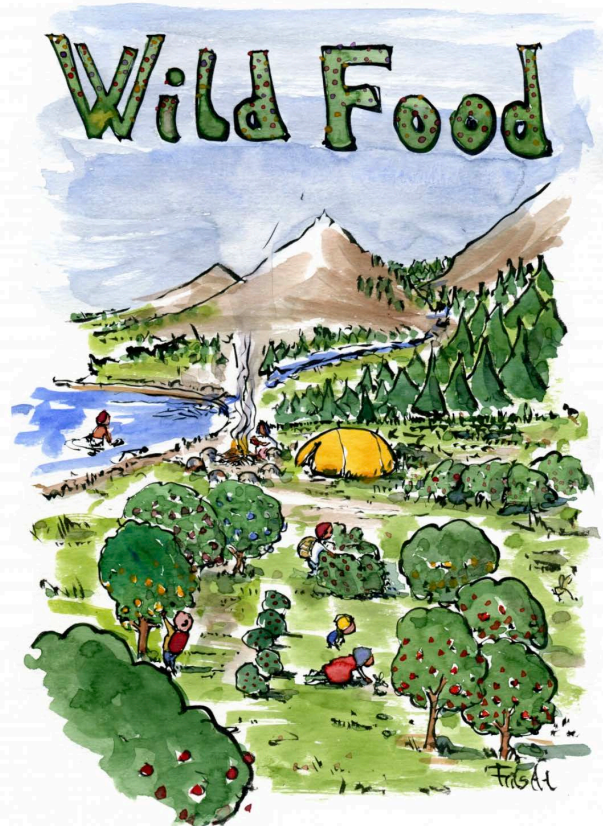


Frits Ahlefeldt <https://hiking.org/2016/06/18/walk-and-eat-drawing/>

People closely connected to the places they walk in often have a unique knowledge of edible species of herbs, vegetables, fruits roots and other foods. A growing number of hikers, goes out in the landscapes, not only to watch pretty scenery, but to connect to

Creative Commons Drawing and text by Frits Ahlefeldt

nature through more challenging ways. One of them is to taste the landscapes.



When on a hike you often pass by a lot of nutritious food, especially on forest and back country trails. Places where people throughout history have been able to live off the land by knowing and supporting the thrive of a wide variety of species

Combining trails with support for endemic food species could both make the backpacks lighter, the locals and hikers healthier and everybody less dependent on plastic wrapped, fossil fuel transported industrial foods, from thousand of miles away.

The local food sources, fruit trees and other tasty alternatives are as if designed to grow right there, the soil often not used anymore, and the hiking trails are in place... giving access to these places. Why not combine this to upgrade our understandings, wild food sources and health for free?

Learning from the “Food is free movement”

There is already a huge and fast growing trend to support wild and free food, the whole “Food is free” movement is taking off globally (FoodisFree.org) and more and more people are joining in, with over 350 cities getting involved. The Food is Free Project is a worldwide movement of people growing and sharing food freely, that encourages connecting with neighbors by planting a front yard garden or sharing the harvest with a #foodisfree table.

Benefits of eating local, when hiking

Relational eating is a fast growing movement, all about knowing and relating to the local landscapes, places and people behind what we eat, and this trend is close related to local eating, sustainable food etc. There is a lot of good things about eating local, both for the environment (less transport, cooling and plastic). For the farmers (getting a better price, new friends and more fun) And for the hikers (getting fresh, tasty, local, exiting experiences – and relating, hearing stories and understanding the land and cultures they pass through much better)



Putting local food on your plate, when hiking, CreativeCommons drawing by Frits Ahlefeldt

Benefits for the trails

There is another very good reason – it make better trails, because the locals gets inspired in many and new ways, and both start to use the trails themselves – and start to protect and make them better.

Some hiking trails have understood this very well, and even made the trails go through as

many small villages as possible, one example is the Camino de Santiago (St. James Way, Spain).

There are many other examples of new and restored hiking trails, where the effect on local culture and life, of a steady steam of hikers coming through, is very positive: new markets spring to life, new eating places open, music in the evenings, restoration work on local monuments and attractions suddenly make much more sense etc.

Text and CreativeCommons licensed drawing by Frits Ahlefeldt



Eating local food is in many places the best option, not only for the hikers but also for all the hikers coming after them... helping to build up and sustain thriving communities and local farmers along the trails benefits both the hikers, the locals and the hiking trails.

Food Trails for Education

Children like to explore, learn and understand nature, and there are many ways to help them do this outdoors, one of these are designing food-trails where they can learn about the vegetables, the soil, the fruits and the herbs they can find, taste and bring home to their families to make dinner much more local and connected to the place they live.

To help the endemic species, and even enjoy the taste of local food is something that could not only help hikers go much lighter, but also help locals keep alive their traditional and varied sources of food. There is a great potential in creating edible trails, both for nature, locals and hikers.

<https://hiking.org/category/philosophy/resources/food/>

Edible Trails' vision is of our human and ecological community enjoying the benefits of public edible forests along miles of trails and on acres of tribal, conservancy, schoolyard, and park lands.

Edible Trails' mission is to engage, educate, and support a network of youth, volunteers, organizations, and businesses to establish public edible forests in the Grand Traverse region and beyond. Our education program guides local youth to lead the process, growing plants from seed in school greenhouses, and planting and tending the forests.

Edible forests are perennial ecosystems full of a large diversity of fruits, nuts, herbs, vegetables, and wildflowers. Once established after 2-3 years, forest maintenance becomes minimal or can be discontinued altogether. Species selection starts with Michigan natives and expands to include hardy edible and medicinal perennial plants. Plants and their uses are labelled. The benefits of public edible forests include:

- An abundance of healthy free food for generations of people
- Improved ecosystem health, with more native plants, biodiversity, wildlife and pollinator habitat, healthier soil, cleaner water and air, and sequestered carbon
- Direct educational experience with plants, ecology, and agriculture for the public

The Edible Trails Project is a network of organizations and volunteers cooperating to transform our unused public spaces into edible forests. Crosshatch Center for Arts & Ecology (formerly known as ISLAND) is Edible Trails' fiscal sponsor, and our partners include:

SEEDS, TART Trails, Archangel Ancient Tree Archive, TBAISD's Career Tech

Center, Greenspire School, Children's House Montessori, the Grand Traverse Band of Ottawa & Chippewa Indians' Natural Resources Department, Traverse City High School, Perennial Harvest, Realeyes Homestead, NoMi Forager, and the Grand Traverse Mycological Society,



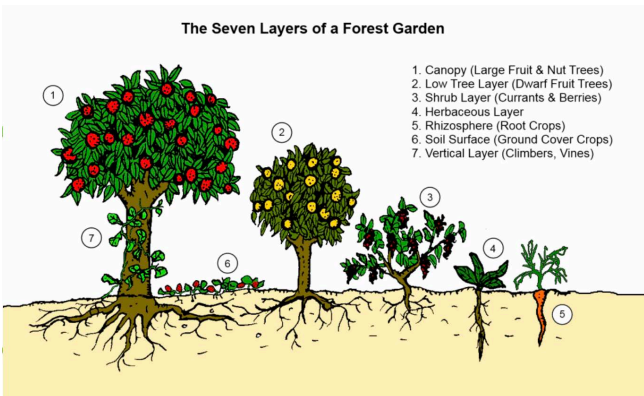
Edible Trails started in 2014 when a group of Traverse City area residents began meeting to plan edible forests gardens along the trail. The project was started by AmeriCorps VISTA Jonathan Aylward, Samantha and Christopher Graves of Healing Tree Farm at DeYoung, Levi Meeuwenberg of Realeyes Homestead, and Stuart Campbell of Perennial Harvest. Over the course of months, the group collaboratively designed two public forest gardens. After a winter of planning, the proposal was enthusiastically received by Tart Trails Inc. and the Leelanau Conservancy, whose land would host the gardens.

They launched a successful crowdfunding campaign to kick off the project in May, 2014 and planted the two food forests that fall and in spring of 2015.

Also in 2015, Edible Trails worked closely with SEEDS to plant edible forests at their host schools

Also in 2015, Edible Trails worked closely with SEEDS to plant edible forests at their host schools. We also established a plant nursery at the SEEDS Farm in Historic Barns Park, and planted two additional gardens at the Caboose on the Leelanau Trail, and in front of the SEEDS Farms.

In 2016, Edible Trails has been working with the TBAISD's Career Tech Center, Greenspire School, and Children's House Montessori to grow plants for the nursery, which will soon be big enough to be planted on the trail. Volunteers and classrooms have been maintaining the food forests. Edible Trails continues to work with partners throughout the region to establish public edible forest gardens.

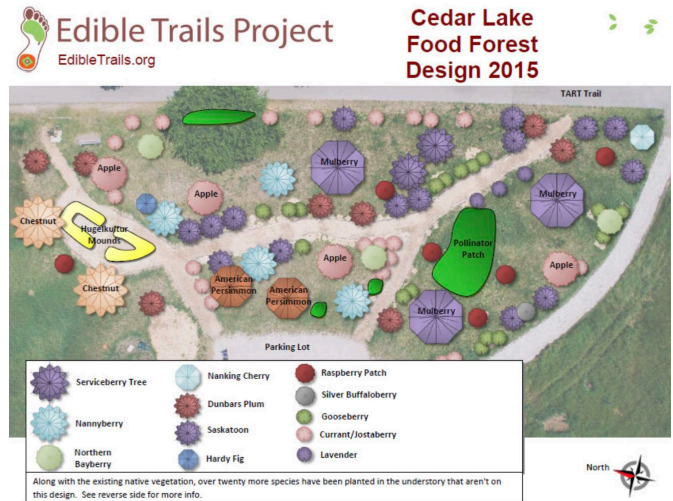


“Edible forest gardening is the art and science of putting plants together in woodland-like patterns that forge mutually beneficial relationships, creating a garden ecosystem that is more than the sum of its parts. You can grow fruits, nuts, vegetables, herbs, mushrooms, other useful plants, and animals in a way that mimics natural ecosystems” (by Dave Jacke and Eric Toensmeier, EdibleForestGardens.com)

Food Forests in History

In many places and times, public forest gardens have covered the Earth, including in pre-colonial America. There is a common misconception that America before the European invasion was a pristine wilderness, with Native Americans as passive hunter gatherers. The reality is much different: Native Americans used sophisticated land

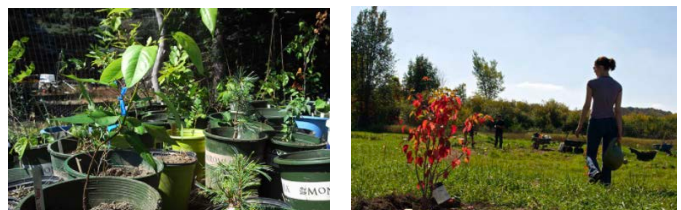
management practices like intentional burning, intensive vegetable farming, and forest gardening. By the initial account of one of the first French explorers, Antoine de la Mothe Cadillac, what is now present-day Detroit used to be full of forest gardens.



New public forest gardens are popping up all over the world. Seattle's Beacon Food Forest sent ripples of inspiration around the country a couple of years ago, and many are being born each year. Together we are reintroducing the public edible woodland.

Community Nursery

The Edible Trail community nursery is working with local classrooms to grow perennial food and medicine plants to be planted in future public edible forests. We've worked with the TBAISD Career Tech Center's AgriScience Program, Greenspire School, and Children's House Montessori to grow plants in their greenhouses, and then grow them out at the SEEDS Farm. Thanks to Rotary Charities Good Works committee for the grant to make this possible!





Session 05 - 10

Introduction to Design Thinking and ROLE Methods

X5 sessions @ 120 minutes

SDG 15 - (target 15.9)

Art and Design, Biology, Chemistry, Community Development, Folklore, Nutrition, Project Development Spatial Planning



Session 5 ROLE 5: Implement and Maintain

The final skills session supports participants to consider the implementation and maintenance of their projects and factor this into their design ideas.

The session will encourage participants to consider their projects; short medium and long-term across socio-economic and environmental aspects. The session supports a consideration of how to insure the projects are sustainable and are maintained after their completion.

Participants will complete the vital signs matrix started in Session 3, when considering boundaries and resources.

ROLE 6 Session 06 - 10: Design – Ideate, Prototype and test

The following 4 sessions are mostly open sessions for participants to begin work on and develop their final designs.

There are suggested activities that can be scheduled across the sessions as appropriate to inspire motivate and to shift the dynamic of the session. These will enable participants to define more closely the 'problems' of the site and address them in their designs.

Working together participants will...

- undertake a remix exercise to ideate and
- develop develop their design ideas further
- create prototypes, vision boards, a diorama, drawing or plan to present their ideas
- test through presenting their ideas and gaining feedback using their vision boards, model or other means of their choosing
- work collaboratively with peers to plan, design, sketch and improve a local site
- will consider and develop and implementation and maintenance strategy

Resources

- Vision board template
- 5 whys
- Ideate <https://youtu.be/zbLxs6te5to>
- Prototype <https://youtu.be/Q4MzT2MEDHA>
- Test <https://youtu.be/UVEQCNM6X-A>

Session 05

40 minutes

Resources

- Funding Summary
- Funding analysis resource

40 minutes

Resources

- Vital Signs Matrix grid



Stage 1

ROLE 5 Implement and Maintain

1. Participants will use the exercises in session 3 from the policy exercise to look at LA 21 and EPA funding strands
2. Participants will use the funding criteria guidelines from the two funds to look at how current policy helps support the case for funding local projects and additional expertise for voluntary groups
3. It also introduces participants to new possibilities for talking about their work and gain recognition and value for their Contributions to local and national agendas
4. This session builds a foundation for stage 2 of the session and completing their Vital Signs Matrix as a roadmap for the aims of their project

Stage 2

The Vital Signs Matrix

1. Participants will complete a Vital Signs Matrix as a means to set their indicators for success for their project and develop their designs.
2. The Vital signs matrix enable participants to set out their design principles, aspects they must address in their design process.
3. Participants will complete the grid template.

Stage 3

Discussion

1. Discuss the next stage of the design thinking process and the next 4 sessions
 - Explain the open nature of the next 4 sessions
 - Encourage participants to gather any additional knowledge or information that they might need
 - Explore areas that they would like to pursue within their designs

End the session with a 3-2-1 reflective exercise

Session 05 - 10

Ideate

Design Phase Session Supports

Resources

- Case Studies
- Assessment sheet
- SDG 4 P2P Ideate
- SDG 11 Rapid Response -
- Engineering for Communities

Ideate

1. Participants will begin to gather the information produced over the previous sessions and work together to identify gaps in their knowledge.
2. Participants will assess the following
 - their observations about the site and context
 - the boundaries within which the project has to operate
 - the limitations and resources available
3. Participants will assess the information and make a list of any information still required in advance of the design phase

Linked Session Supports:

SDG 4 P2P lesson 4, 5 Ideate: Lesson 4 Remixing ideas worksheet and Remixing SWOT

SDG 11 Rapid Response Engineering for Communities – Session 04 Worst Idea Ever exercise

Prototype

Prototype - Split session structured activity / participant design session

1. Use part of the session for participants to work in groups to explore the local, national and global case studies to assess the aspects of the projects that may have interest or inspire new thinking about the sites and their potential.
2. The questions are structures and will include
 - Did you like the project – yes / no why?
 - What struck you most about the project? The ambition, the diversity of approach, community involvement
 - List any aspects of interest and any elements that have inspired you.
 - Are there any elements that might work within this trail?
 - What would not work in this project?
 - Anything else that the participants note about the case studies

SDG 4 P2P lesson 6 Prototype

SDG 11 Rapid Response Engineering for Communities – Session 03



Design Phase Session Supports

Resources

- Vision Boards
- How to - Diorama

Test

1. Watch the Test Video
<https://www.youtube.com/watch?v=UVEQCNM6X-A>
2. Using the 'how to' diorama resource and the vision board worksheet participants will present their final designs and share their ideas and get feedback from the group and the wider community.
3. Participants could contact their local library to exhibit their Ideas with a feedback / comments box or if working within an adult education centre or community centre

Linked Session Supports:

SDG 4 Test: Lesson 7 Sharing your ideas getting feedback

SDG 4 Media Communication

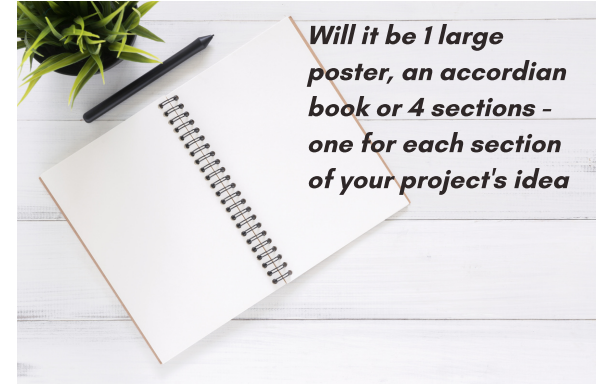
Reflective Exercise:

Give learners five minutes to reflect on the lesson in their notebooks, using the following prompts;

- Three things they feel they have learnt from the lesson or tasks
- Two things they found the most interesting and would like to learn more about
- One piece of feedback on the lesson and the tasks



CREATE A VISION / MOOD BOARD



STEP 1 MATERIALS - DIGITAL OR HANDMADE?

You can choose to do your vision board online but if you make it you will need to gather card board, card /paper, glue, scissors, images

STEP 2 DECIDE ON WHO WILL DO WHAT

Each person should in the group should be responsible for one of the four sections in the image board worksheet

STEP 3 PLANNING YOUR VISION BOARD

As a group you can start to plan the size, shape and format of your vision board – see examples but don't be limited. It should reflect your project



STEP 4 GATHERING IMAGES

Begin to gather images that tell the story of your project – you can use drawings, cut outs, images printed from Google or Pinterest or if digital you can scan or images online

STEP 5, ORGANISE YOUR INFORMATION

You can organise the sections in different ways – think about your audience – who are you trying to reach? Look at examples of posters, communication for that audience

REMEMBER MESSAGE AND AUDIENCE

1. Will they read left to right
2. Will you direct them how to read using arrows or numbers
3. Will your central idea be the biggest image

SESSION 10 HOW TO MAKE A DIORAMA

15 LIFE ON LAND



A diorama is a three-dimensional full-size or miniature model that can be used to show a situation, environment, a building or theatre set.



Make a Paper Diorama

Make a Paper Diorama: This instructable will show you how to create a gorgeous little Diorama scene; perfect to make with your kids, or just something fun to do yourself. This...

 Instructables / Jul 1, 2013



1. Make A Rough Sketch

Sketch out your design for the scene in the diorama as this will help you plan what you want the diorama to look like, including the background and foreground. Think of the composition of the piece, the layout of all the aspects of your design and also if its too scale. As you research your site you can begin to develop your designs and gather what you need.

2. Plan your diorama - Make a list of items that you will need for your diorama. This will also depend on what you are trying to present. Generally you will need plasticine or modeling clay, card board, glue, scissors, paint and brushes, paintbrush, markers, felt, and fabric scraps.

You can also use waste and paper / glue like paper mache. You can also use natural materials e.g. leaves, twigs, rocks if you are doing a landscape and miniatures figures if you want to show people / scale.

3. Select a container - Dioramas show perspective so they should be made in a box or frame that has depth. The container must have an open-faced front so that viewers can see the scene. A shoe box turned on its side works incredibly well for creating a basic diorama.

You can also do a free standing model if you prefer.

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4. Building your Diorama – Make your background first, begin at the back and work forward. You could paint your background, use cut outs from card or make a collage from magazine images.

If you are making a free standing model you may decide not to show the background.

5. Build up the ground or landscape. Include details on the bottom of the box as well. You can use pictures, paint, or modeling clay to create a realistic ground, adding the details you need e.g. hills, ponds. Try to recreate realistic aspects e.g. sand for an ocean floor.

6. Once everything is where you want it fix to the box or a base using glue.



<https://youtu.be/6ganUXUa0sw>

