

Future Biomass Usage

Lesson 0: Course Outline

Introduction

Hello and welcome to this training course on Future Biomass Usage.

A famous proverb has it that:

“One man’s waste is another man’s treasure “

But in mankind’s interaction with nature to harvest trees from the forest, crops from the land and fish from the sea, we have been slow to identify treasures in the waste streams produced.

For many years, forest or crop residues have been burnt or discarded to make way for new planting.

For many years large amounts of fish caught were thrown back into the sea because they were the wrong type or size or were discarded as waste from processing plants.

As consumers we have thrown our waste into landfill sites that have further impacted local habitats and biodiversity.

Farmers continue to grow crops that they sell at unsustainable prices because large food companies control supplies and can bring in competing products from lower cost regions around the world.

Coastal communities face hardships as fishing boats are forced by quota restrictions to tie up in harbours.

And all the while we pump more CO₂ into the atmosphere warming the planet.

All the while we chase depleting oil and gas reserves in sensitive regions of the world causing damage to natural environments.

As a planet we are only coming to realise how unsustainable this is.

It is clear that the resources needed to sustain and grow our societies and economies must be renewable and grown from biological sources.

We must realise the treasure that we have in our natural resources. We call this natural resource **Biomass**.

What is Biomass?

Biomass may be defined as the material from organic matter or wastes of living organisms that may be used to produce products, fuel or energy.

Biomass has a big future.

In this training course learners are provided with knowledge to be able to understand the potential future usage of biomass in shaping our economies and societies.

On completion of this training course, you will be able to:

- Understand the different types of Forest Biomass
- Understand the use of Forest Biomass for bioenergy, biofuel and new bioproducts
- Understand the different types of Agricultural Biomass
- Understand the use of Agricultural Biomass for bioenergy, biofuel and new bioproducts
- Understand the different types of Marine or Blue Biomass
- Understand the use of Blue Biomass for bioenergy, biofuel and new bioproducts
- Understand the different types of Waste Biomass
- Understand the use of Waste Biomass for bioenergy, biofuel and new bioproducts

Who is this course for?

This course is ideal for those who are looking to study the potential for innovative biomass usage.

This course is also appropriate for those who wish to work in sectors of biomass feedstock supply.

The course is divided into 4 lessons:

- **Lesson 1: Forest Biomass Usage**
- **Lesson 2: Agricultural Biomass Usage**
- **Lesson 3: Blue Biomass Usage**
- **Lesson 4: Waste Biomass Usage**

How to navigate the course

If this is your first course with People & Process Academy, be sure to look at “Studying with People & Process” before you begin. This short video shows you how to find your way around the lessons and modules.

Lessons are all presented in video format, and there's a transcript you can follow as you watch. If you like, you can download the video transcript to revise later on. In this course, each new lesson builds on previous information, so it's best to follow the lessons in order. Similarly, you should follow each module in sequence as you first go through the course. All registered users have unlimited access to video lessons and transcripts, and you can repeat each video as often as you like.

There's a discussion forum attached to this course. You'll find the discussion forum on the course homepage. In this forum you can chat to other students and leave questions and comments on the course.

If you have any difficulties navigating the course, see the support section for help.

The Assessment Method

There's a quiz at the end of each lesson to test your understanding of the material. To successfully complete this course, you must pass the quiz for each lesson. Once all the lessons have been completed, you can then download and print the People & Process completion certificate.

So, let's get started! In the next lesson entitled “forest Biomass Usage” we will look at the need to transition to a sustainable biobased economic model.