

First ESA BIOMASS Workshop

The selection of BIOMASS as the 7th ESA Earth Explorer mission provides a major impetus for bringing together the ecological, modelling, policy, industrial and Earth Observation communities in order to gain a common view of the current status of global biomass knowledge and to define how these communities can work together to best exploit the mission. Deepening these links is essential as we lead up to the launch, proposed for 2020, because the success of the mission leans heavily on the active involvement of the scientific community, especially those involved in in situ biomass measurements, and the development of a well-informed, diverse set of potential users of BIOMASS data. As a result, ESA is instigating an annual series of conferences that will bring these key communities together and develop joint activities aimed at ensuring the best possible science and applications return from the mission, as well as placing BIOMASS within the context of a global system for measuring biomass and forest dynamics. The First BIOMASS Science Workshop will be held in Frascati from 27-30 January, 2015.

Meeting Objectives

1. Define an overall science programme leading to best use of BIOMASS and which seeks to reduce overall biomass uncertainties within the constraints of precursor activities;
2. Ensure effective links between the satellite team, ecologists and the various user communities;
3. Establish strong links to teams working on in situ measurements because of the crucial need for ground data to calibrate and validate the BIOMASS data;
4. Grow the community involved in exploiting space data for biomass estimates and ensure a healthy young community is in place to exploit BIOMASS when it launches;
5. Explore mutually supporting funding opportunities.

The first two days will be devoted to overall biomass science and applications, but we are taking the opportunity on day 3 to link to the parallel PolinSAR conference: this fosters communication between the technical and ecological communities, and allows us to place talks on BIOMASS algorithms and technology in that meeting. The 4th day will consist of feedback and recommendations to ESA.

The sessions will be 2 hours long and based around a set of problem or key issues. Currently there are no named speakers in the sessions though we aim to have one keynote paper in each session. We will vary the type of talk within each session.

Some or all of the sessions will be in an “open access” format, with only half the time devoted to (short) talks, and the rest devoted to small group discussion. We are still finalizing our ideas on how best to do this but our proposed structure is as follows:

Suggested topics for Tuesday 27 Jan

Session 1: State of knowledge about global biomass: key gaps, unknowns & uncertainties

Session 2: Critical analysis of the state of the art in remote sensing of biomass: current and future.

Session 3: Uncertainty analysis in biomass estimates (in situ, EO data and their links)

Poster session preceded by a 1 minute introduction per poster.

Wednesday 28 Jan

Session 1: The dynamics of biomass: deforestation, degradation, regrowth

Session 2: Sharing biomass data, using them in carbon flux calculations, and the implications for international treaties and carbon trading.

Session 3: Feedback from the discussion group leaders: summaries and recommendations

Poster session preceded by a 1 minute introduction per poster.

Thursday 29 Jan (together with the main PolinSAR conference)

Session 1: The BIOMASS mission: technical concepts

Session 2: P-band measurements of forest properties

Session 3: Other applications of P-band SAR

General background to the Workshop and instructions about submitting abstracts can be found at the Workshop Website:

<http://seom.esa.int/polinsar-biomass2015/>

We hope to see you in Frascati

Best wishes

Shaun Quegan (on behalf of the Science Committee)