

# A2S2 - Assured Artemisinin Supply System

**ARTEMISININ CONFERENCE 2010**

**Madagascar, 12 – 14 October 2010**

## ARTEMISININ MARKET QUANTITIES AND PRICING

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## Artemisinin Market analysis

- Challenges:
  - Production cycle: from planting till first batch of ACT: 14 months
  - Numerous partners
    - Farmers: more than 100 000, collectors, traders
    - Extractors: less than 15 majors, but also small ones producing crude.
    - API producers integrated or independant
    - ACT producers, agreed or not, also monotherapies.

## Artemisinin Market analysis (2)

- Challenges:
  - Getting information still difficult as the market is changing: newcomers, middlemen...
  - Confidentiality and marketing policy.
  - AMFm impacting the needs and the policy of the main ACT producers.
  - Producers of monotherapies or ACTs for local market not aware of the changes and still active.

## ARTEMISININ PRODUCTION (1)

- Production ex crop 2009 was limited due to shortage of leaves, even from the wild.
- 2009 production estimated at 60 T only, but stocks.
- After Mumbai conference, willingness of the extractors to increase the plantations mainly in China.

## Artemisinin production (2)

- First estimation beginning 2010 was about 140 T globally to be expected

## Artemisinin production (2)

- This year production:
  - Very bad climatic conditions in Asia:
    - drought at the planting season,
    - Flooding afterwards
    - Estimation: 25 to 30% loss of production
  - Technical difficulties for some
    - Environment,
    - process, supply of wrong solvents...

## Artemisinin production (3)

- Content in the leaves lower than usual in Asia: (- 10 to – 15%)
- Extractors were sometimes considering the same sources in their first estimates.
- Competition between extractors on the same farmers.
- Due to the price increase, new extractors arriving on the market and competing for the wild.

## Artemisinin production (4)

As

- all leaves are not yet collected
- the content is only estimated
- Newcomers and traders may keep some quantities of leaves and may speculate,

Best estimates of availability of artemisinin from this crop will be between 90 to 105 T from now till June 2011 in the world.



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## DEMAND

Demand based on the following hypothesis:

- Global demand of treatments (included monotherapies and not covered countries): 230 – 260 million treatments
- Average artemisinin per treatment:  
0.5 g of artemisinin
- Global **needs** of artemisinin in 2011:

115 – 130 T

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## The Demand (2)

- But:
  - The demand is also the sum of the quantities buyers are looking at
  - Due to the tenders and competition, some expect to sell more and are building corresponding inventories.
  - This requirements from buyers could create problems.
  - It seems this demand is around 130 T–145 T.

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## Offer/Demand

- Production of this year crop will not cover the consumption if we consider the forecasts.
- ACT or API producers are still expecting to receive all the quantities they have ordered.
- Extractors are less confident to be able to fulfill all commitments.

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## Offer/Demand

- Balance seems negative.

### Questions:

- When will we have an unified global forecast?
- When will we know more precisely the quantities and content for 2010?
- We invite participants to comment and give input during break sessions.

## Artemisinin price

- Production cost:
  - Cost of leaves: very fluctuating this year according to the origin,
    - From 880 \$/T to 1,200 \$/T for the majority, but some prices higher.
  - Extraction costs increasing due to
    - Commodities price increase
    - Less content in the leaves will increase the cost per kilo of artemisinin as cost to treat 1 T leaves is the same whatever the content.

## Artemisinin price (2)

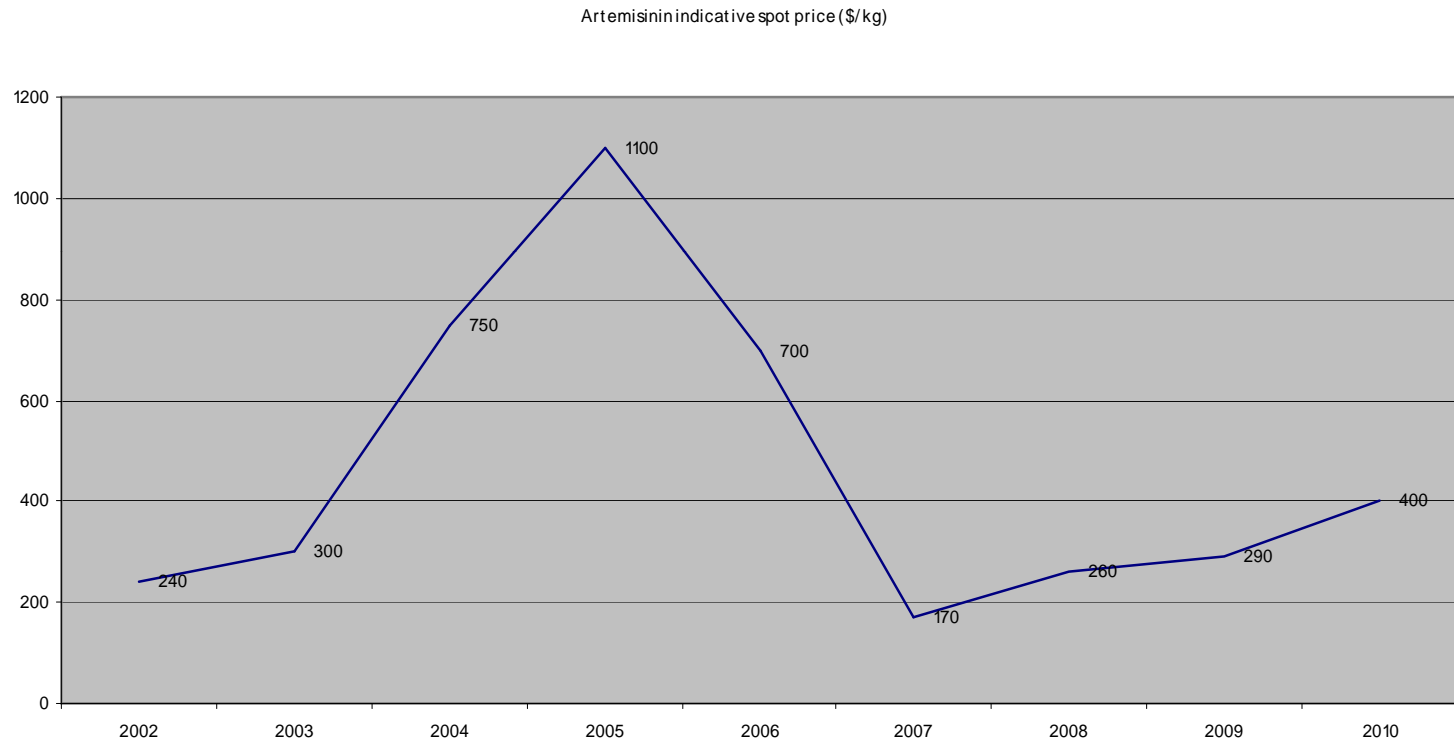
- Production costs:
  - Processes efficiency (extraction and purification): from 45% to 80%
  - This results in a wide range of production costs from  
320 \$/kg to close to 400 \$/kg.

## Artemisinin price (3)

- Market price:
  - In Mumbai, we said that a fair market price would be 350 + or – 330 \$/kg, when the market price was below 300 \$/kg.
  - Important sales this year have been done at 350 to 400 \$/kg
  - The competition between buyers is pushing prices in a range now of 400 to 450 \$/kg.

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## Price evolution





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**Thank you.**

**Comments / questions?**

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