

Farland
Future Approaches
to Land Development



FAO – Prague 2008 Regional
Workshop on Land Tenure and
Land Consolidation
Land Bank and Impact
Assessment

**TEV “What happens after
projects’ conclusion?”**

**Mondego Project,
Portugal**

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Ministério da
Agricultura,
do Desenvolvimento
Rural e das Pescas

DGADR
Direcção-Geral
de Agricultura e
Desenvolvimento Rural

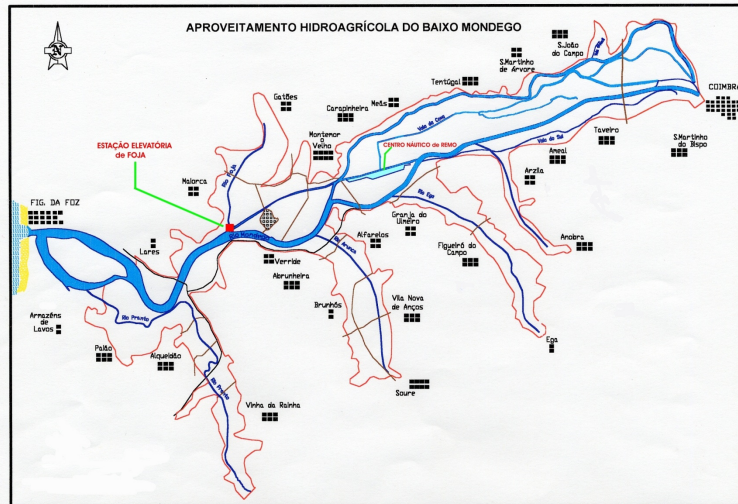


I – Why Mondego?

- State's initiative (DGADR)
- Most successful LC projects are there
- More LC projects
- Implementing LC projects since 1965
- LC in Portugal has become highly criticized for taking too long and being too much expensive



II – What's “Mondego”?



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Bringing
Mondego
to you...





II – What's “Mondego”?



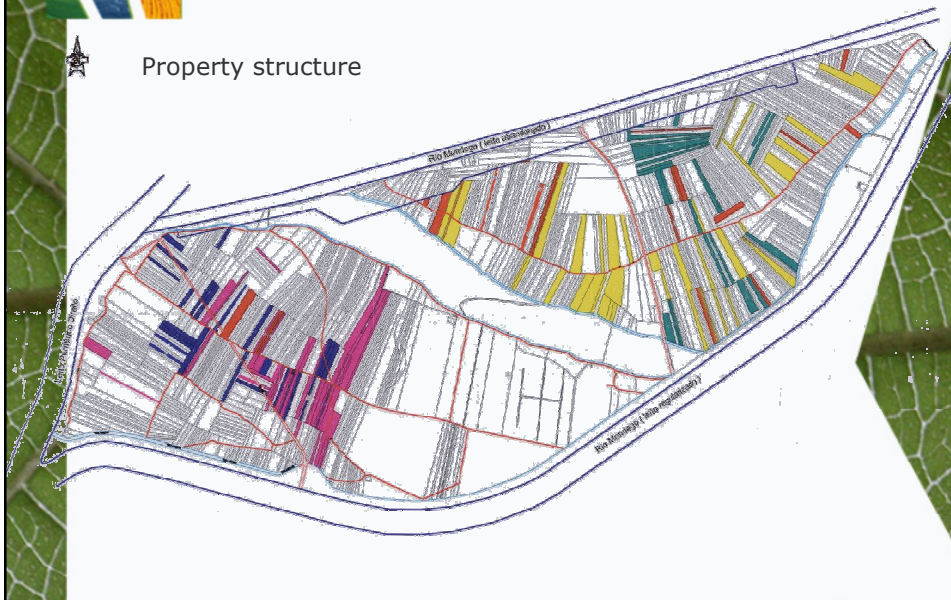
- It's a hydraulic and agricultural project, State's initiative
- Significantly located territory with very fertile soils
- It was becoming abandoned because of several constrains, being the most relevant: very frequent floods, rural infrastructures extremely deteriorated or hardly existing, incipient irrigation schemes, highly scattered property, parcels with very small size and wrong shape.



II – What's “Mondego”?



Property structure





II – What's “Mondego”?

■ Two kinds of actions:

- primary works; Ministry of Environment; to control floods, regulate river flow, supply water for industries and agriculture and to produce electricity;
- secondary networks of infrastructures; Ministry of Agriculture; improve and rationalize rural roads network, to drain agricultural fields, supply water for irrigation at parcel level and improve property and farm structure.



II – What's “Mondego”?

■ LC became the process that, besides improving property and farm structures, would allow to:

- rationalize the design, planning and construction of infrastructures networks and, therefore, decrease public investment in such works, as well as free land for agricultural use, avoiding expropriation;
- facilitate irrigation management.





II – What's “Mondego”?

- In the 60s, State Secretary of Agriculture excused the preliminary studies for LC projects in Mondego.
- In the 70s, as general planning for the whole valley was done, a request for cooperation with German Gov. was presented, involving technical and financial aspects.
- KfW asked for a feasibility study which was presented in the 80s.
- Feasibility study included all works concerning agriculture in the valley. This study concluded that the IRR of the investments in the valley would be 12%.



II – What's “Mondego”?

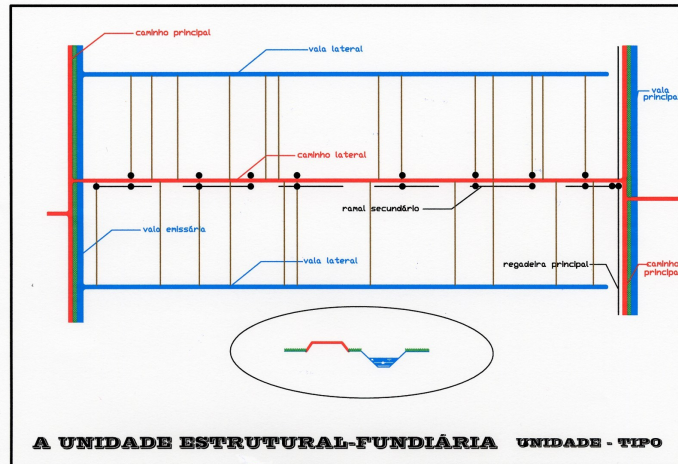
- Networks' particularities:
 - adapted to small size of parcels/plots;
 - executed at the same time as LC;
 - conciliated to predominant existing crops (rice, maize);
 - though conceived in such a way that allows beneficiaries a free option concerning the crops and the kind of agriculture they want to practise.





II – What's “Mondego”?

■ Infrastructures: secondary network



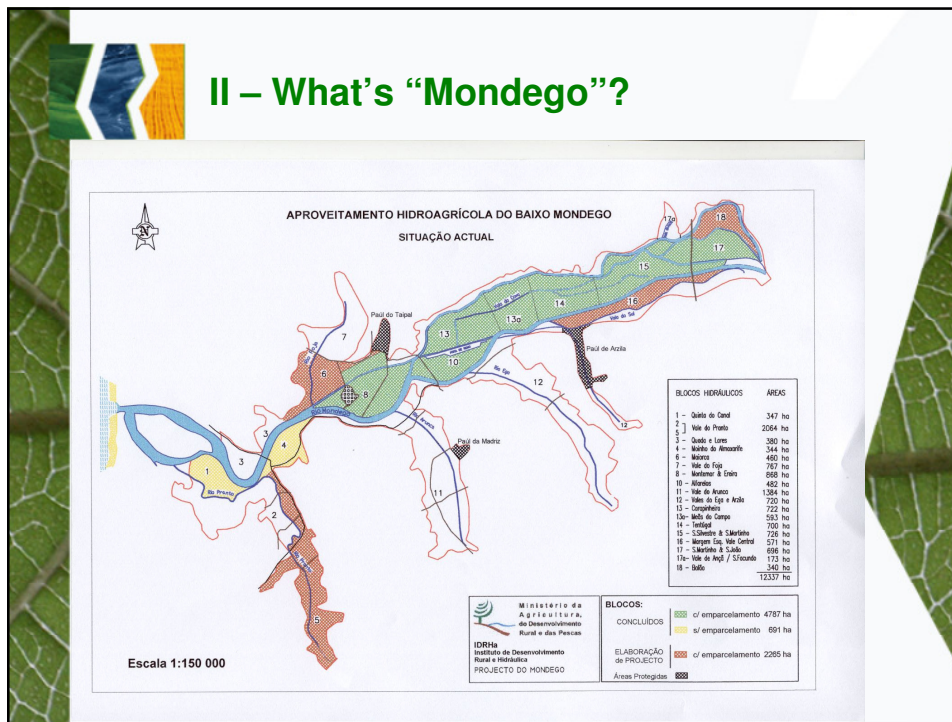
II – What's “Mondego”?



■ LC in Mondego:

- 10 projects concluded, about 5.000 ha;
- number of parcels per owner from 3,21 to 1,1;
- parcels' average area from 0,41 ha to 1,17 ha;
- average deduction coefficient is 3,7 %.

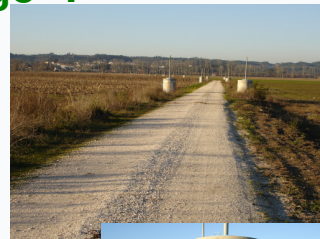
II – What's “Mondego”?



II – What's “Mondego”?

■ Investment (about 5.500 ha):

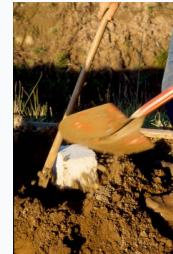
- secondary networks
 - . irrigation: 18.953.500 €
 - . drainage: 1.871.000 €
 - . rural roads: 6.272.600 €
- total costs (considering secondary networks, leveling and other soil works, indemnities): 42.800.000 €





II – What’s “Mondego”?

- Concluding, execution of infrastructure networks together with LC brings several advantages:
 - freedom to plan networks, allowing a better rationalization;
 - avoids expropriation (deduction coefficient);
 - all works are executed at the same time (less indemnities to pay);
 - consolidation of property saves a lot of money and time necessary for execution of networks.



II – What’s “Mondego”?

- What happens after project’s conclusion?
 - Once works are finished, there’s an experimental period while networks’ management is tested by DGADR;
 - Afterwards, the perimeter is entrusted to a farmer’s association, which becomes responsible for the exploitation and maintenance of networks and collective constructions;
 - Each owner receives a deed, which entitles property rights and clarifies the legal situation of property.



II – What’s “Mondego”?

■ Impacts:

- . physical and economical dimension of farms increased, especially the ones belonging to farmers who have a entrepreneur spirit;
- . farmers gained freedom to adopt other agricultural systems and crops (like vegetables, for example);
- . the number of farmers with higher education increased;
- . the number of younger farmers also increased;
- . land market was activated and land prices became higher.



III – The Technical Exchange Visit (TEV)



■ This TEV took two days:

- First day: presentation of LC in Portugal, Mondego and the region, the beneficiaries association, different points of view, a method to evaluate LC projects;
- Second day: field trip, interviews with farmers and TEV evaluation.



III – The Technical Exchange Visit (TEV)

- A method to evaluate LC projects (developed by Prof. José Castro Coelho) was presented;
- It has been used for ex-ante evaluation, comparing initial situation with possible future scenarios (models): the situation with LC is compared with the development of the area if the project is not executed or if only part of the project is implemented;
- Portuguese LC law obliges to, during preliminary studies, do a feasibility study (economical and technical points of view).

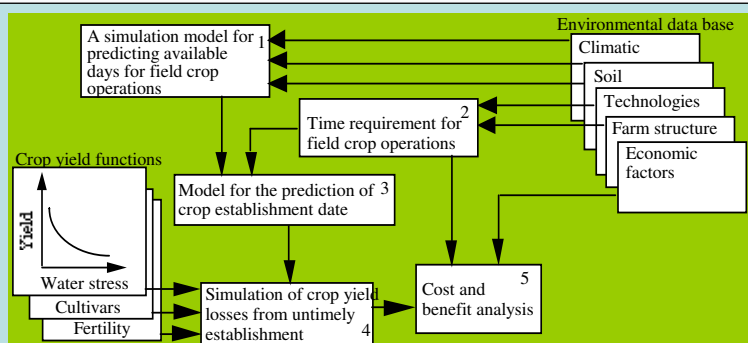


III – The Technical Exchange Visit (TEV)

- For each model, the changes caused by project execution and the effects of these changes on economical and (a few) social aspects (not environmental).
- An inquiry and interviews to farmers (a representative sample) to characterise present situation and perspectives of future developments: the farmer and his family, the farm and parcels, projects for the future, opinion about LC and about related aspects.

III – The Technical Exchange Visit (TEV)

- For each crop (together with the the way it is cultivated) is determined the cost per ha.
- All this data is introduced in a software developed by this department in the University of Agronomics.



III – The Technical Exchange Visit (TEV)

- Five main categories of estimations, before and after LC execution: (1) available days for field operations (related to improvements in drainage system); (2) time required for crop operations (changes in technology and farm structure, road quality and distance between plots and farm buildings); (3) crop establishment date (changes in the available days and time required for field operations); (4) crop yield losses (related to main environmental and technological limitations); (5) CBA at crop, plot, farm and LC levels.



III – The Technical Exchange Visit (TEV)

It was used once in a ex-post evaluation of a LC project:

Evaluation of model performance (with LC)	Estimated by the model in 1992 (ex ante analysis)	Observed after LC conclusion in 1995 (ex post analysis)
Sample area	65.5	73.5
Number of farms in the sample	29	29 + 2 = 31
Average farm size	2.26	2.37
Average parcel shape coefficient	1.13	1.11
Average number of parcels/farm	6.2	5.4
Average parcel size (ha)	0.37	0.52
Road quality coefficient	1.10	1.13
Average parcel distance to farmstead (m)	834	717
Uncultivated area (%)	1	1
Regional maize area (%)	4	1
Hybrid maize area (%)	66	59
Vineyard area (%)	29	33
Potato area (%)	0	6
Annual labour income with LC (1000 esc. ≈ 5 €)	426	540
Benefit Cost Ratio	1.55	2.42



IV – TEV's conclusions



From the questionnaire:

- Main problems existing after a project is concluded are:
 - . implementing organizations immediately loose influence and responsibility on these areas;
 - . measures taken within the project and their management reveal to be not sustainable enough;
 - . frequently, maintenance and management of infrastructures is not guaranteed and they may come difficult to hand-over;
- There is not much experience in ex-post evaluation.



IV – TEV's conclusions



■ From the evaluation session:

- examples like the one from Galicia where ex post evaluation is obligatory by law and the one from Portugal where it is also obligatory by law, to hand-over the maintenance and conservation of irrigation networks and other collective equipments and constructions to a local farmers organization;



IV – TEV's conclusions

■ From the evaluation session (cont.):

- in general, before the approval of the project (planning phase), it should be clear and accepted who are the direct beneficiaries of the i.e. and these should become responsible for the maintenance;



IV – TEV's conclusions



■ From the evaluation session (cont.):

- ex-post evaluation is important at several levels:
 - . for politicians (justification of the public investment);
 - . for research institutes (improve methods and develop new ones);
 - . for implementing organizations (to improve their methods and approaches and monitor their own work);



IV – TEV's conclusions

■ From the evaluation session (cont.):

- the precision of the analysis should vary accordingly to the size and complexity of the project;
- analysis should also be qualitative and not just quantitative (using questionnaires, interviews,...).

So, to say it short: there's not much practice and there's the need to develop further such method(s) to evaluate projects in ex-post situation.





TEV “What happens after projects’ conclusion”

Thank you for your attention!

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